Product
Catalogue

EXOR

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Your Problem, Your Solution, Our Technology.

Your company faces the same old problem: How to make money today and how to make money tomorrow?

The varied solutions to this ever-present question do however alter over time. Industrie 4.0, and the digitalization of the information thread that runs throughout the company have brought new and innovative solutions.
They fall into 8 distinct categories where every company is or will be competing within:

1. Data-driven Plant Performance
2. Data-driven Inventory Performance
3. Data-driven Quality Improvement
4. Machines as a Service
5. Human data interface
6. Predictive Maintenance
7. Remote Servicing
8. Virtual Training and Validation

Many of our competitors say that they offer solutions, so maybe EXOR can also tell what you should do? Maybe EXOR should give you the solution that would work in your industry, in your company, in your unique place in the world?

Yet it seems to us that to answer yes to these questions would be to diminish the importance of the challenges that you face. Because your company is unique. You have multiple years of experience in your sector and **only you can provide the solution to your problem**. Only you and your team can truly envisage how to make money today and tomorrow.

What EXOR International can offer you is the ability to securely acquire data from almost any approval critical location across multiple vendor and protocols, powerfully work with this data in real time at the edge and then send this data to a robust cloud to visualize, manipulate and analyse.

With Our Technology, we are able to help you implement Your Industrie 4.0 solution to Your business problem.

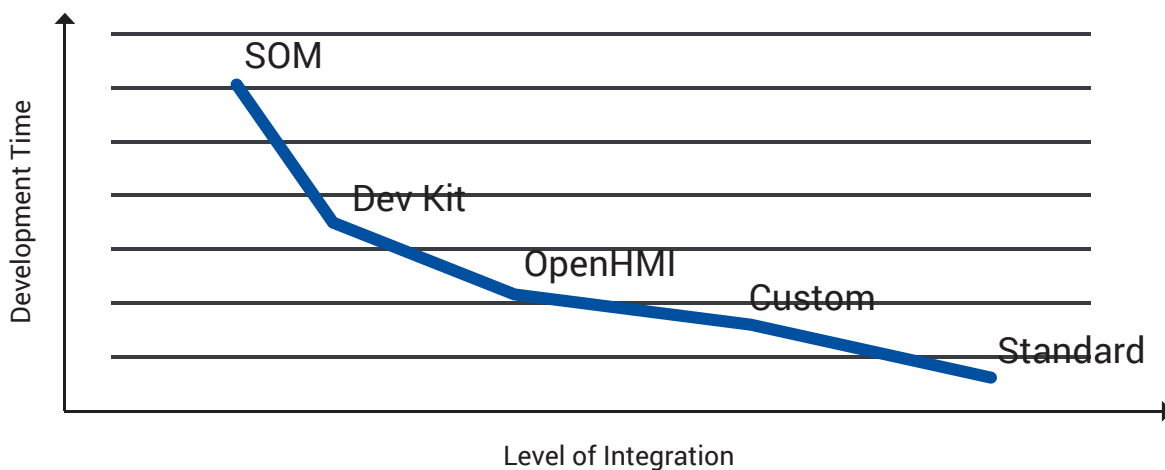**That's why EXOR International is a technology provider**

What is the X Platform?

The X Platform unifies all the products and services that fall under the umbrella of EXOR International. From the very smallest building blocks of any IoT project, through the implementation of any of the eight benefits of Industrie 4.0, to the requirement of a custom or standard high-performance gateway or HMI, the X Platform is able to offer the products that you need.

At the component or machine level the X Platform specializes in **smart edge human data interfaces** that are both impressive in their functionality as they are unique in their aesthetic appeal.
At the factory level the X Platform offers **smart edge computing power** that allows the visualization of data simultaneously acquired via multiple protocols from all the major vendors.
The X Platform completes the offers with a **robust industrial cloud** where by the secure visualization of data many of the Industrie 4.0 opportunities can be realized for your unique company.

However the X Platform is not just a technology platform... it includes the nearly 50 years' experience EXOR International has in designing, building, manufacturing and maintaining the software, firmware and hardware necessary for all human machine interfaces. This experience really shows its value when any project comes up against a problem, as all projects do. **It is in these moments EXOR International can demonstrate how effectively the X Platform operates: it truly is a collaborative platform**, ideal for Industrie 4.0 model implementation in industrial, marine, automotive, oil & gas and building sectors.

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X Platform Components - Content

Software

Visualization and Connectivity Software

The Only Industrial IoT Software you will ever need

In just one easily learned software suite, JMobile **completely covers** the connectivity from edge to cloud, device management, process management and data visualization essential for the all the edge to cloud levels in **any Industrial IoT platform architecture**.

- High User Interface Experience
- Create IIoT ecosystems with reduced risk
- From Shop Floor to Cloud / Big Data
- Real Interoperability
- **Great HTML5 interface with JM4web**
- Create Alarms with associated Alerts
- Efficient scripting with JavaScript
- More than 200 communication protocols readily available for all platforms with gateway function
- Browser widget
- Integrated PLC runtime as an option for compact control solutions. Include full support of networked I/O
- Software and documentation available in 4 languages: EN, DE, FR, ZH
- Multi platform runtime: Linux ,Windows, Windows CE
- **Complete compatibility with OPC UA**

Overview

In just one easily learnt software, JMobile completely covers the connectivity, device management, process management and data visualization essential for the lower levels of any IIoT platform architecture.

For connectivity, with a fully integrated CODESYS PLC, JMobile permits communication to all I/O, Sensors, Motion devices via the significant protocols of PROFINET, EtherCAT, POWERLINK, EtherNet/IP, Modbus amongst many others. Transmitted using the highly robust and secure OPC UA standard and soon pub/sub over TSN, **data is seamlessly shared within the network of edge points as well as sending all data to higher Enterprise levels and external interfaces.**

This exacting communication universally envied as a real technical achievement does not, however, convey the total completeness of JMobile. Born from an industrial market need, this close contact with customers has remained so deeply ingrained in the constant development process that **the beautiful user experience is a defining attribute**. The ease of implementation, using evident stunning graphics elements built into a vast library, allows quick and uniquely defining clear visualization.

As the market moves more towards ever increasingly complex web applications, JMobile is ready. The JMobile client-server architecture is already conversant with current HTML5 web technologies and uses a QT engine and Scalable Vector Graphics, **JMobile4 Web**. This provides users with advanced control and remote supervision from any browser, any device (smartphone, tablet, or computer).

MQTT (MQ Telemetry Transport) is the publish/subscribe protocol designed for constrained devices and low-bandwidth, high-latency networks. It is a common protocol used for light load IIoT communication.

JMobile 4.0 comes with an efficient implementation that seamlessly connects to any MQTT broker, including those offered by providers such as Amazon, Exosite, IBM, Microsoft. The MQTT protocol has been built-in to JMobile runtime as a service with full data gateway capability.

You can easily configure automatic data push from field devices to the cloud. Data security is enforced by the use of TLS and X509 certificates.

CORVINA is an open IoT platform from Exor that connects any products, plants, systems, and machines, allowing data generated IIoT to be processed simply and intuitively with advanced analysis.

CORVINA Cloud is a PaaS (Platform as a Service) and RMM (Remote Monitoring and Management) system. JMobile 4.0 brings the first service for edge data collection to CORVINA.

The simplest approach you can imagine to bring your data to the cloud.

Unified programming approach for native and web HMI applications.

Now it is easier than ever to create screens optimized for visualization on any client while saving programming time.

New JMobile project validation technology makes it simpler creating fully operational applications under all conditions.

The redesign and refactoring of existing JMobile function is the best way to improve programming efficiency while ensuring full compatibility.

It is also a method to keep GUI up to date. In JMobile 4.0 you will find a great new design for:

- Project View with drag&drop to move pages within the project and multiple selections

- Tag Editor with unification of tag database and dictionary, customizable view, multiple editing of common properties, powerful search and synchronization of symbol files

- Alarm Editor with customizable view, powerful search and multiple editing of common properties

Reporting complex data, such as tables (alarms, trends, audits) and trend graphs is possible with the new PDF report function.

PDF files can now have a signature for data security, as required in demanding applications such as those compliant with 21 CFR Part 11.

Communication is always a central point in JMobile applications; even more now that IIoT data collection and edge data processing is becoming the focus in industrial applications.

New in JMobile 4.0 you will find the new CAN Direct protocol, the simplest and most powerful tool to create your own CAN protocols.
Also very important is the new protocol for connecting to Siemens Simatic S7 PLCs with optimized data block programming.
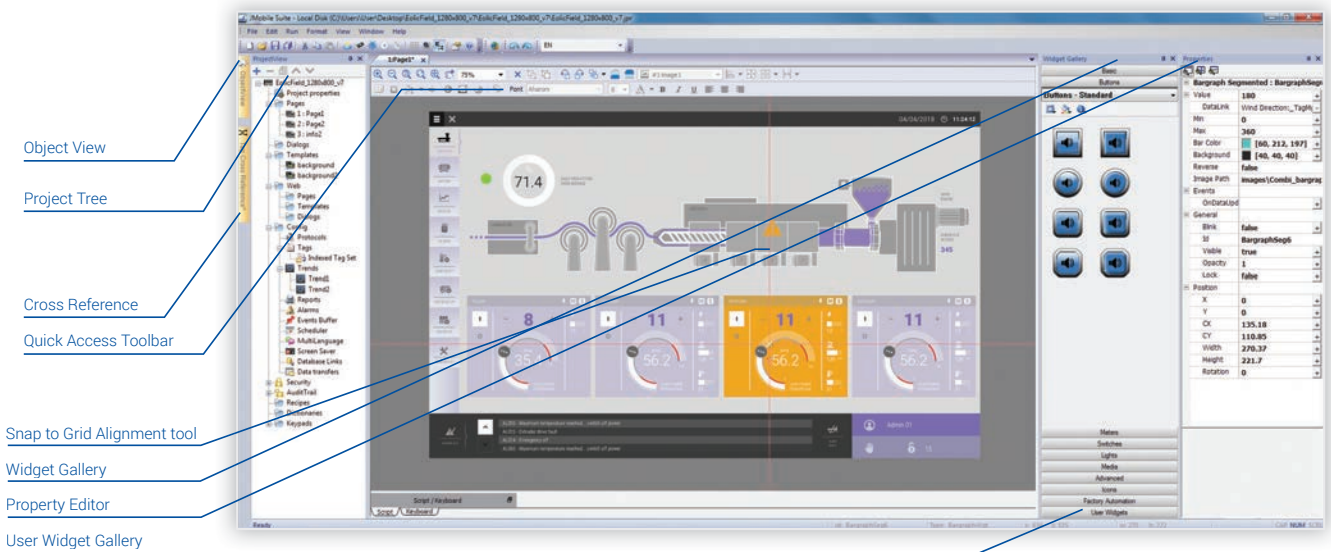
Guiding Principles of Development

The **three principles that have guided and will continue to guide** the development of JMobile are:

1. **Remain open** to the major fieldbus / protocols of communication
2. **Use open and universally recognized** market technological standards such as HTML5, SVG, XML
3. Integrate selected market-leading **3rd party software with a seamless UI and extremely secure**.

These three principles working together offer EXOR International and our customers the best of all situations where the secure, solid JMobile backbone of highly critical software is able to contain and implement all the software required for Industrial IoT implementation.

Object View
Project Tree
Cross Reference
Quick Access Toolbar
Snap to Grid Alignment tool
Widget Gallery
Property Editor
User Widget Gallery

Version 4.0 Improvement List

- MQTT Service
- CORVINA Interface
- Unified programming of native and web pages
- Project validator
- Project View redesign
- Tag Editor redesign
- Synchronization with symbol files
- Alarm Editor redesign
- Tag Scaling and Type Casting
- Support of tables and graphs in PDF reports
- Signed PDF reports
- JM4web support for generic tables, audit tables, trend tables
- Trend data acquisition up to 10 samples/second
- Trend data acquisition of alphanumeric tag

- Configurable column view for trend tables
- Up to 300 tags for a single datalog
- JS API functions for user management
- More rules for password definition
- Import/export text for message widget in XML
- Live tags in text widgets, Message widgets and alarms
- Historical alarms with collapsed view
- Regional settings as project properties
- BACnet server functions in BACnet protocol
- BACnet JS API function for device and object discovery at runtime
- Play videos from external data sources
- Sending SMSs with PLCM09
-

New Protocols

- Siemens S7 Optimized Datablocks
- CAN Direct
- IDEC Maintenance
- Keyence KV

- DMX512
- Robox BCC/31
- EATON Suconet K

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Pure Web Technology

JMobile 4 Web is the seamless connection between Industrial control applications and ubiquitous mobile devices such as smart phones and tablets.

Developed ahead of the market's vision in 2010 and continuously updated ever since using the very same guiding principles for JMobile, it now provides the most comprehensive Pure Web Technology available.

Designed and maintained by EXOR, a company with 45 years experience in the industrial sector.

- Pure Web Technology
- Created and Developed since 2010
- Based on HTML5/JS
- Secure connection with https protocol support
- 100% HTML5 web HMI Interface
- Ready for responsive design
- Realtime Data Update (up to 10x per second)
- Multitouch Support
- Ready for most common Browsers for PC and Smart Devices with iOS and Android
- Ease of Use. No HTML competence required
- Full JMobile library of over 2000 Widgets
- Available as Component for 3rd party platforms
- Data Acquisition and Trends
- Recipes
- Multilanguage
- Javascript
- User management
- Canvas and custom widgets

Overview

With HTML5 and Javascript technology embedded in JMobile, all that is needed to remotely monitor and control applications is a web browser with HTML5 support: Firefox, Chrome, Safari and Microsoft EDGE. No "apps" needed when operating from mobile devices, hence reducing the risk of compatibility across various operating systems.

With JM4web you can have **instant Web access to JMobile applications** via the integrated Web server included in all JMobile runtime systems.

JM4web allows for creating the **exact responsive user experience** for the target mobile device. The Web server will detect the resolution of the connected client device and serve the appropriate pages.

JM4web is the ideal complement to the powerful remote connectivity and visualization tools already available in JMobile.

Cloud

Connectivity Management

CORVINA Cloud 1.0

CORVINA Cloud 1.0 is an **advanced connectivity management solution that puts you in control of your IIoT business.** Leading seamlessly from the JMCloud offering, CORVINA Cloud 1.0 is powerfully robust, highly scalable and offers advanced VPN capabilities.

The user interface is incredibly clean and easy to use. Web-based it allows all your remote devices, networks and users to are able to communicate securely.

CORVINA Cloud 1.0 **can be offered as an on-premise cloud infrastructure** that delivers the uptime and performance needed for industrial applications and control services at any scale.

Benefits

- **Single click** of the mouse to gain access to all devices
- Enables maintenance and installation **cost reduction**
- Increases Industry 4.0 implementation by completing the **IIoT Whole Product Solution of the X Platform**
- Allows new business services opportunity to final user
- Shows location and status information of all devices in the field
- **Access to web server of device** using standard browser on pc, tablet and mobile
- Creation and management of multiple small entities on the same installation.
- Break up a large enterprise into smaller departments, that shall remain separate and host all of them on a single CORVINA interface.
- Completely **accessible and configurable from browser**

Recent Updates Have Included

Direct access application:
Possibility to create a user that can access only one application on a single device

VNC runtime Password:
Possibility to enable runtime password for VNC connections

Light White Label Branding:
Possibility to customise logos and portal login address for a first level organisation

Cloud credential and other configuration setup using USB: Possibility to set CORVINA Cloud 1 credential and other parameters using script file on USB

Network Address Translation (NAT) rules on eXware, eX700 using USB: Possibility to set NAT rules on eXware and eX700 devices using a script file on USB which then functions with CORVINA Cloud 1

PLCM09 3G modem Compatibility:
Usage of the PLCM09 3G modem with CORVINA Cloud 1

Advanced VPN for IIoT Security

A powerful and highly scalable solution that offers **advanced VPN capabilities** with a simple web-based interface allows all your remote devices, networks and users to be able to communicate seamlessly.

Industry standard **encryption technology** ensures your data stays protected in transit for complete IoT security.

Granular role-based access permissions allow **users to only gain acces to required resources and nothing else.**
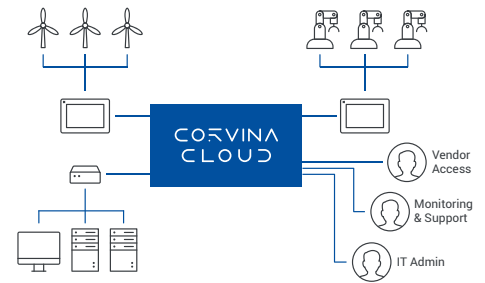
Isolating for Maintenance and Installation

CORVINA Cloud 1.0 uses a SSL VPN technology (OpenVPN) to allow both installation and maintenance to be made remotely and highly securely.

Non functioning devices can be identified from the portal and isolated to be worked on. This can help save time and money and minimize network downtime.
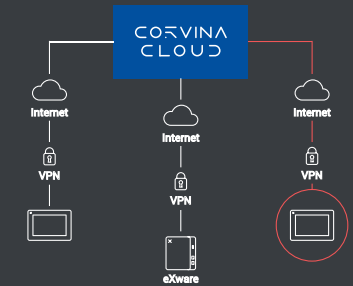
Applications

In traditional VPN solutions, there is no support for helping users to identify or link their local applications to remote VPN resources.
This has the consequence that users have to remember IP addresses or require the use of complicated DNS systems.

CORVINA Cloud 1.0 solves this issue by allowing you to specify "application links" which will launch a local application on a user's computer and connect it to a remote resource automatically and with just a single click of the mouse.
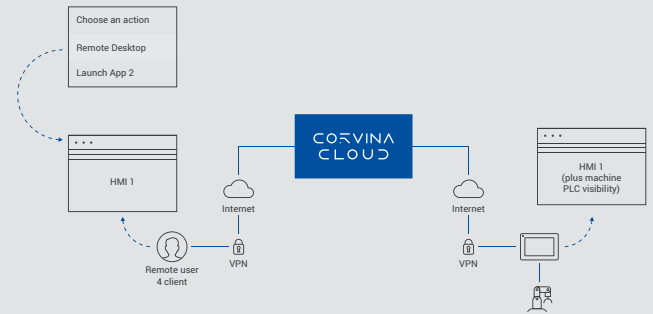
Subnet Mapping

One of the most common challenges industrial networks are faced with is the problem whereby multiple locations have the same subnet, making it impossible to implement a central VPN management tool without significant intervention.

CORVINA Cloud 1.0 is the only solution on the market that can seamlessly resolve this routing nightmare, allowing your deployment to go smoothly.
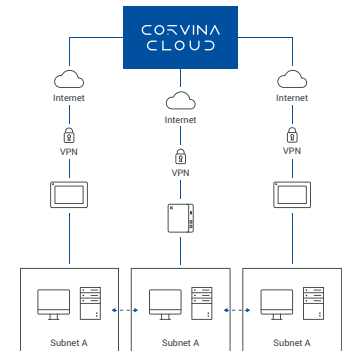
USB Provisioning

With distributed networks that span large territories, it's common for the IT staff to experience a lot of traveling to deploy network equipment. This takes a lot of time, not to mention incredible cost.

With the USB Provisioning tool, devices can be easily pre-configured on a USB stick and shipped out to their location for a simple, secure installation.
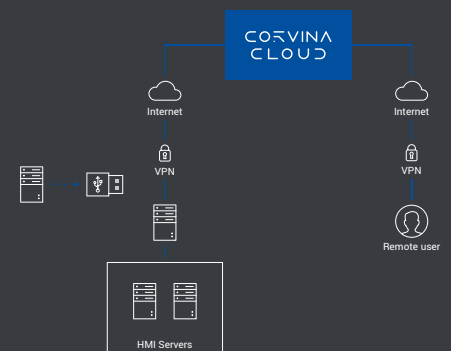
Web access using standard browser

CORVINA Cloud uses web proxy technology to allow usage of standard browser to connect to portal with security HTPPS protocol
It is possible to access to local display of device using VNC client integrated into portal. It is possible to access to web server of device using standard browser
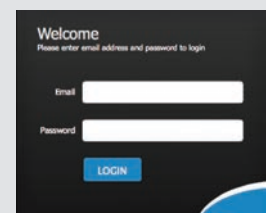
Open Industrial IoT Platform

CORVINA Cloud 2.0

CORVINA Cloud is a **PaaS** (Platform as a Service) and **RMM** (Remote Monitoring and Management) system.

It is the cloud-based, Open Industrial IoT platform that provides the technology you need for the industrial world. It is The **Industrial Cloud**.

It connects any products, plants, systems, and machines, **be they new or legacy**. It allows the data generated by the Internet of Things (IoT) to be processed simply and intuitively with advanced analysis. It **bridges layers between IT and OT architecture**, providing effective tools to access all the industry 4.0 benefits, such as asset performance management, predictive maintenance and OT remote monitoring.

Our Technology that allows you to implement at scale and securely **Your solution to Your problem**: how to maintain competitiveness, grow and maybe just to disrupt.

CORVINA
CLOUD

Open Industrial IoT Platform

CORVINA Cloud
seeks the
**Information
of Things**

Usability

EXOR has a long history of making Industrial software. Given the crucial role the software plays in complex and essential environments, **EXOR has always been concerned with the effectiveness, efficiency and satisfaction with which specified users achieve precise goals in particular contexts.**

CORVINA Cloud continues this tradition.

Upon the first startup, the user will find it easy to **become familiar** and able to use CORVINA Cloud's user interface. It is easy for the user to **achieve their objective, navigating smoothly** between the various high-level functions of the platform. Moreover, software design has also made it **easy to recall the multiple services available** on CORVINA Cloud as well as how to use them on subsequent visits.

Deep consideration as to how our clients will use the software leads to a **rapid onboarding of the platform and hence faster access to industry 4.0 benefits**.

Utility

CORVINA Cloud has been designed with a level of functionality that you have come to expect from an innovative engineering company as EXOR. Much effort has been made to offer **all the instruments to ensure CORVINA Cloud meets the needs of the user.**

Users will suddenly without complexity, be able to connect devices to any cloud, to set up roles with associated access limits and to produce multi-level alarms amongst many other functions.

Incredibly within a short time, users will have **powerful asset management performance and maintenance management applications** that will make you wonder why other cloud providers charge for these applications.

Visual Design

Although not often thought of in the industrial sector, visual design is **a crucial element of a thoughtfully made software.**

CORVINA Cloud is used often in white label with sub organisations; the ability to customise the product is essential.

Aesthetics and usability have a positive correlation which helps to communicate your brand to the market.

The visual design of CORVINA Cloud provides a balance between visual appeal, usability and utility unseen in the industrial space.

Functional Integrity

Reliability and high availability have always been a major concern in distributed systems.

Providing highly available and reliable services in cloud computing is essential for maintaining customer confidence and satisfaction and preventing revenue losses.

EXOR is a long term provider of Industrial strength products and software. From the beginning CORVINA Cloud was designed with a solid infrastructure but of more importance have been **the automatic procedures that constantly monitor the state of the system and predict and prewarn of any possible future issues.**
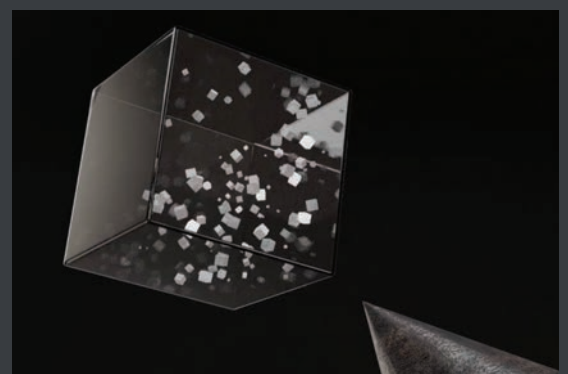
Utility Benefits

PLUG & CONNECT

Simplifies the process of connecting any device to the cloud

DATA MODELING

Optimize the Device connection allowing the creation of Profiles for machine models

MULTITENANT MANAGEMENT

Easy upgrade, easy customisation and ongoing cost savings

CUSTOM SDK

Customize Dashboard with implementing Widget, KPI, data analisys functions

FINE GRAIN ACCESS

Highly specific access constraints to data and functions

GEOLOCATION

Possibility to implement all the functions related to the positioning of the device (Route, GeoFencing, ...)
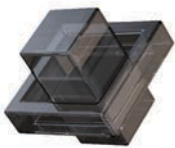
REST API

Offering great deal of flexibility. Data is not tied to resources or methods.
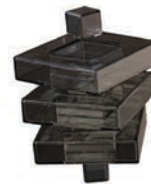
ALARMS

Protect plant uptime and safety minimizing the number and impact of abnormal situations thanks to the prompt information received by Email notifications.

REMOTE MANAGEMENT

Proactive Service based on Alarm, Remote Support to the Customer

UI CUSTOMIZATION

Placing the visual design in line with your brand provides good secondary sales

DASHBOARD CREATOR

Autonomously increase profits creating dashboard that shows you relevant data for your business

Hardware

Embedded

EXOR Embedded

EXOR Embedded concentrates in Embedded Computer Systems based on ARM architecture which are used in many different professional environments. As one of the most innovative suppliers in the field, we offer our customers know-how and expertise in the areas of:
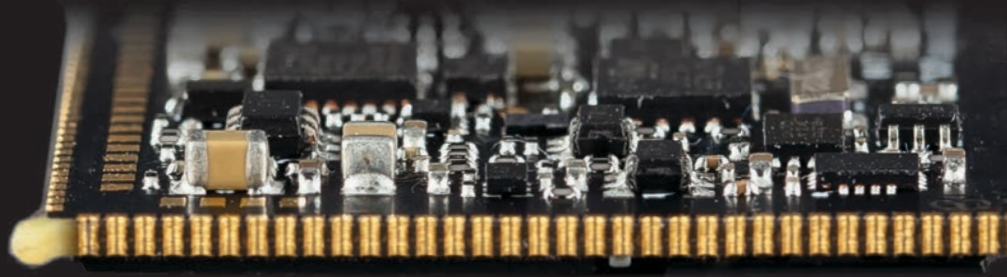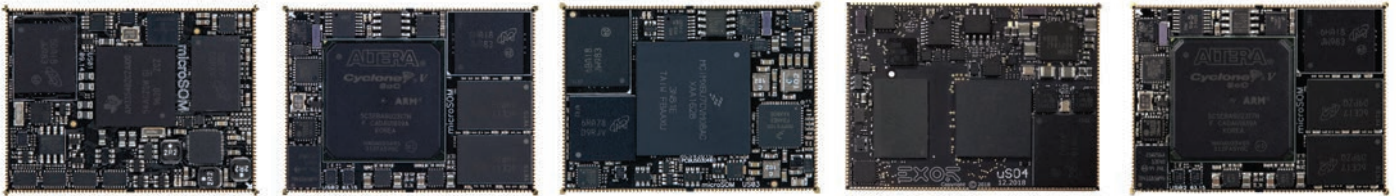
- electronic system development with BSP, Linux, Yocto and Codesys,
- system integration with support for protocol integration and cloud connectivity, and,
- the production of final almost-finished electronic products.

As a spin off from EXOR International we have nearly 50 years of experience and acquired expertise from a multitude of successfully completed projects in the industrial, marine, automotive and building sectors. Some of the products developed by us have been working in industrial environments for decades proving both the longevity of support and the resilience of design.

One of our strengths is our own specialized in-house production. Over 50,000 electronic units are produced, tested and shipped here annually to a global audience. The finished products of EXOR International provides EXOR Embedded with further understanding of the challenges faced in the industrialization of final products. This expertise along the entire development cycle allow us to assist in the optimization of your production line.
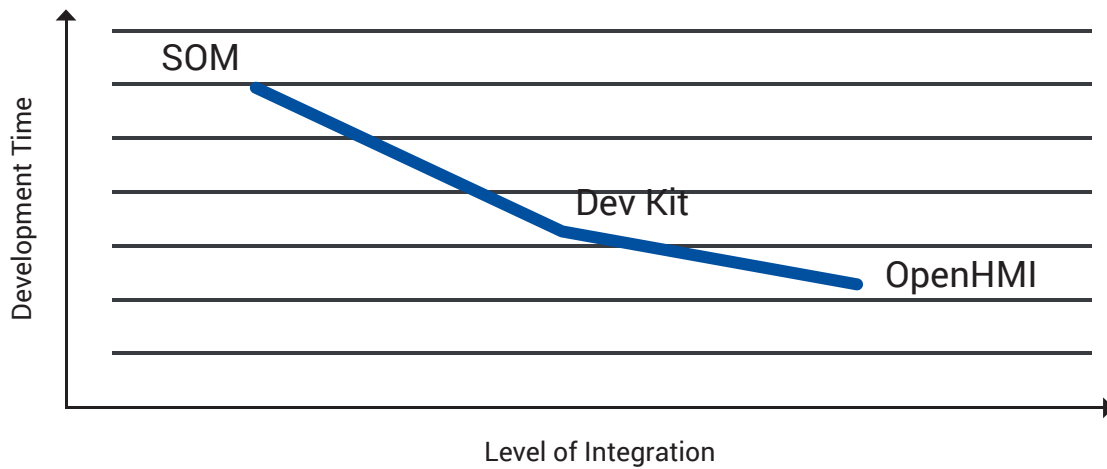
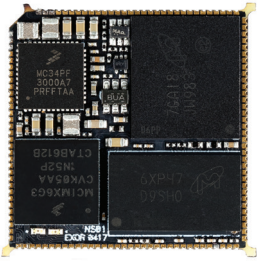The EXOR Embedded **SOM series** offers great performance, space and cost saving array of products. The SOM catalog is constantly expanded and updated with new versions based on the latest ARM, x86 and FPGA processors to guarantee our customers the possibility of creating competitive and performing product. High computing power and economy of space is a special feature of the design. They offer the possibility to place them in compact devices.

Development kits for all the SOMs enable software development to begin immediately, even if the final hardware design has not yet been decided upon. All common interfaces of the relevant processor are available on the baseboard, so that a complete software development can be performed. Connectivity to CORVINA Cloud is included. Once the development is complete, the relevant SOM can be integrated quickly and easily into your own hardware.

EXOR Embedded also offers its customers open-frame or semi-assembled carrier boards such as the new **OpenHMI kits**. These consist of a single board computer based on nanoSOM connected to a display and touch. OpenHMI technologies guarantee the best time to market for our customers who can integrate our HW directly into their product. Included is a special version of the industrial respected JMobile connectivity and visualization software as well as connection to the industrial cloud, CORVINA Cloud as well as other third party cloud services. Available in different configurations, the products of the OpenHMI family are ideal for the realization of HMI systems and for the development of industrial minipc for the collection and transmission of data from the field to the cloud, smart IoT gateway PC.

nanoSOM nS01 - Technical Data

Dimensions	25,4x25,4 mm
Temperature Range	Commercial 0 to +70°C / Industrial -40 to +85°C
CPU	NXP i.MX6 UltraLite 528 Mhz - ARM Cortex-A7 MPCore with TrustZone and NEON Media Processor unit.
DDR	Up to 1 GByte high performance DDR3L
Flash Disk	Up to 32 GByte eMMC Flash
EEPROM	512 Bytes x 8
RTC	Yes, Battery or SuperCAP backup
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	2 (Host V2.0), 1 (OTG)
Ethernet	2 (RMII ports 10/100Mb MAC IEEE1588)
SD	1 (via External connectors)
SPI	4
I2C	1
CAN	2
UARTs	3
Audio	1 (I2S Channel)
Video	24 bits RGB LCD parallel / Optional Video Input Port 8 bits (shared with some peripherals)
Analog Input / GPIO	3 Analog Inputs and several programming GPIO signals with interrupt capability (2 PWM). Reserved Pins for Power-Fail, Power Good, Reset IN, Reset Out functions.
Security	Optional Advanced Security functions ARM TrustZone with optional 10 Tamper pads
Power Supply	Single 3,3 Volt / VBB for RTC Backup

NanoSOM nS01 is highly innovative, high performance very efficient, ultra compact and cost-effective SOM based i.MX 6 UltraLite CPU ARM Cortex-A7 core.
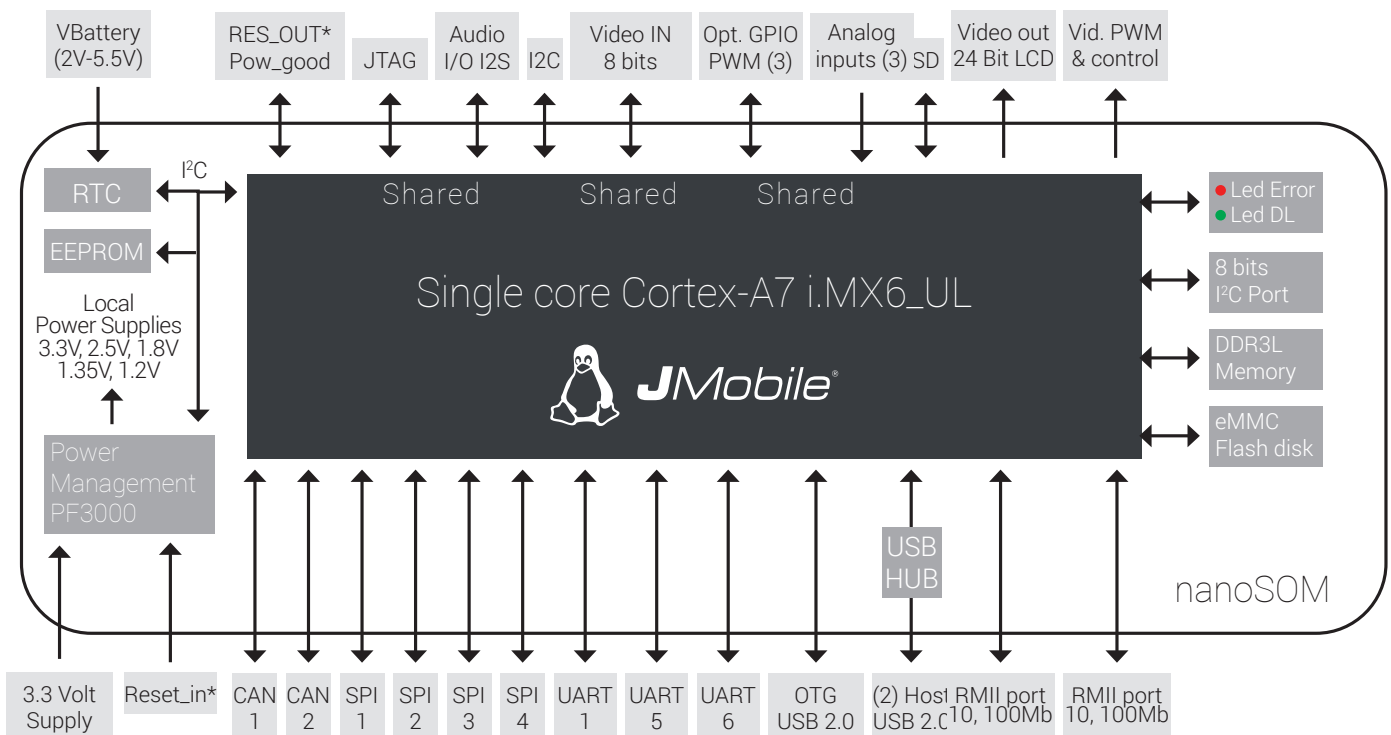
Ordering Information

Model	Part Number	Description
nS01-0001	+NS01-0001	i.MX6 UltraLite 528Mhz - 256MB DDR3L - 4GB Flash Disk - Operating Temp. 0 to +70°C
nS01-0002	+NS01-0002	i.MX6 UltraLite 528Mhz - 512MB DDR3L - 4GB Flash Disk - Operating Temp. -40 to +85°C
nS01-0003	+NS01-0003	i.MX6 UltraLite 528Mhz - 512MB DDR3L - 4GB Flash Disk - Operating Temp. -40 to +85°C - Adv.Security
nS01-0004	+NS01-0004	i.MX6 UltraLite 528Mhz - 1GB DDR3L - 8GB Flash Disk - Operating Temp. - 40 to +85°C
nS01 Dev. Kit	+EE16EK-0005	nanoSOM nS01 Development Kit
OpenHMI nS01 Dev. Kit	+EE16EK-0007	5" OpenHMI nS01 Development Kit

Optionally available with different configurations, with different CPU part number, memory sizes and Operating Temperature grades.

nanoSOM nS02 - Technical Data

STM32MP157 up to 800 Mhz

NanoSOM nS02 is highly innovative, high performance very efficient, ultra compact and cost-effective SOM based at Dual Cortex -A7 plus M4 MPU with 3D GPU.

Dimensions	25,4x25,4 mm
Temperature Range	Commercial 0°C to 70°C / Industrial -40°C to +85°C
CPU	STM32MP157 up to 800 Mhz Dual Cortex-A7 plus M4 MPU with 3D GPU.
DDR	Up to 1 GByte high performance DDR3L
Flash Disk	Up to 32 GByte eMMC Flash
EEPROM	512 Bytes x 8
RTC	Yes, Battery or SuperCAP backup
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	2 (Host V2.0), 1 (OTG)
Ethernet	1 (RMII 10/100Mb MAC IEEE1588) and 1 (10/100Mb Direct Line Interface)
SD	2 (via external connectors)
SPI	4
I2C	1
CAN	2
UARTs	3
Audio	1 (I2S Channel)
Video out/Video in	24 bits RGB LCD parallel or 2 lane MIPI DSI Video Input Port (camera port) 8,10,12 Bit
Analog Inputs / GPIO	More Analog Inputs and several programming GPIO signals with interrupt capability. Reserved Pins for Power-Fail, Power Good, Reset IN, Reset Out functions.
HW security	Secure boot, Trust Zone IPs
Power Supply	Single 3,3 Volt / VBB for RTC Backup
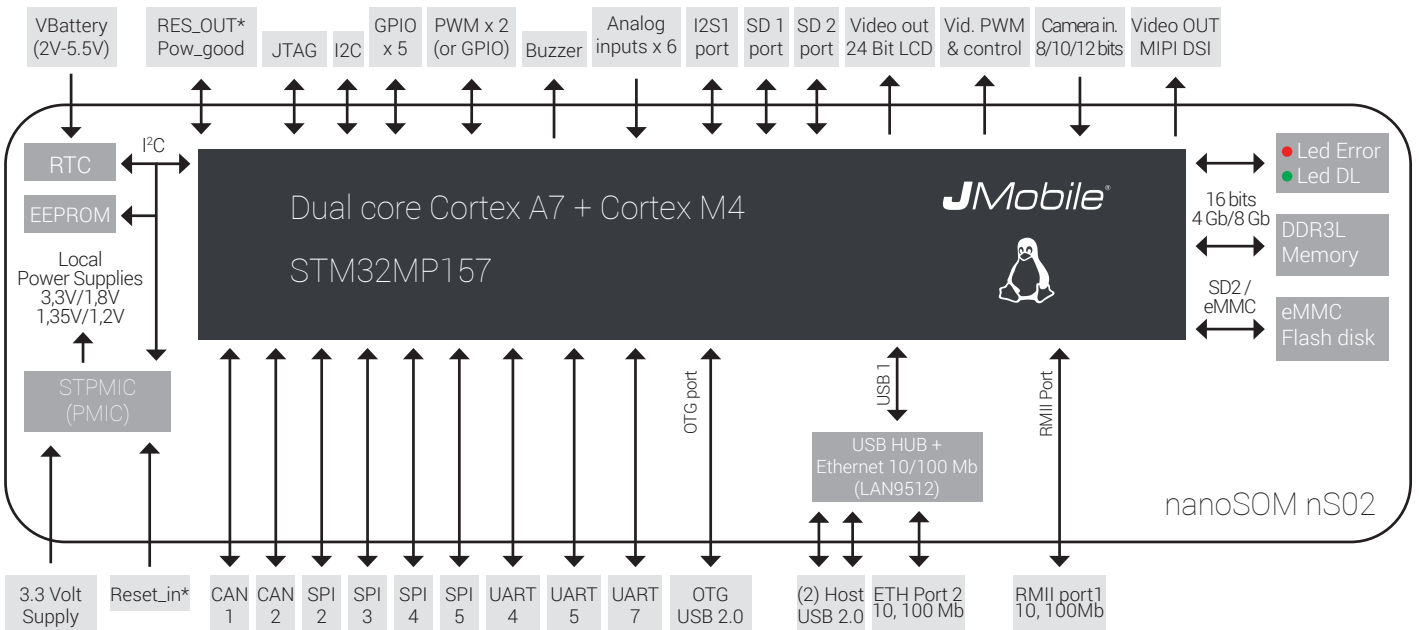
Ordering Information

Model	Part Number	Description
nS02-0001	+NS02-0001	STM32MP157 up to 800Mhz - 256MB DDR3L - 4GB Flash Disk - Operating Temp. -40 to +85°C
nS02-0002	+NS02-0002	STM32MP157 up to 800Mhz - 512MB DDR3L - 4GB Flash Disk - Operating Temp. -40 to +85°C
nS02-0003	+NS02-0003	STM32MP157 up to 800Mhz - 1GB DDR3L - 8GB Flash Disk - Operating Temp. -40 to +85°C
OpenHMI nS02 Dev. Kit	+EE16EK-0009	5" OpenHMI nS02 Development Kit

Optionally available with different configurations, with different CPU part number, memory sizes and Operating Temperature grades.

microSOM uS01 - Technical Data
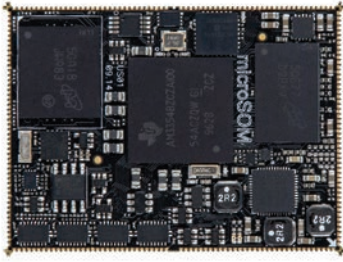
microSOM uS01, TI's Sitara ARM-Cortex-A8 based microSOM standard, for the increased system performance requirements.

|	
Dimensions	46x35 mm
Temperature Range	-40°C to +85°C
CPU	TI Sitara AM3352/AM3354 up 1 GHz
DDR	Up 512 Mbytes DDR3
Flash Disk	Up to 4 Gbytes eMMC (The actual size could vary according to the device's vendor. 2MB min. of boot sectors.)
EEPROM	4 Kbits
FRAM	64 Kbytes (optional)
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	2 (Host V2.0)
Ethernet	2 (RMII ports 10/100 Mb)
SD	1
Serial Port	3*
SPI	2
I2C	1
CAN	2*
Audio	1 (I2S Channel)
Video	1 (Video Out Controller 16 Bit)
Analog Input	5
GPIO	19

Software configurable. Not all selections can be combined
* One UART shared with one CAN
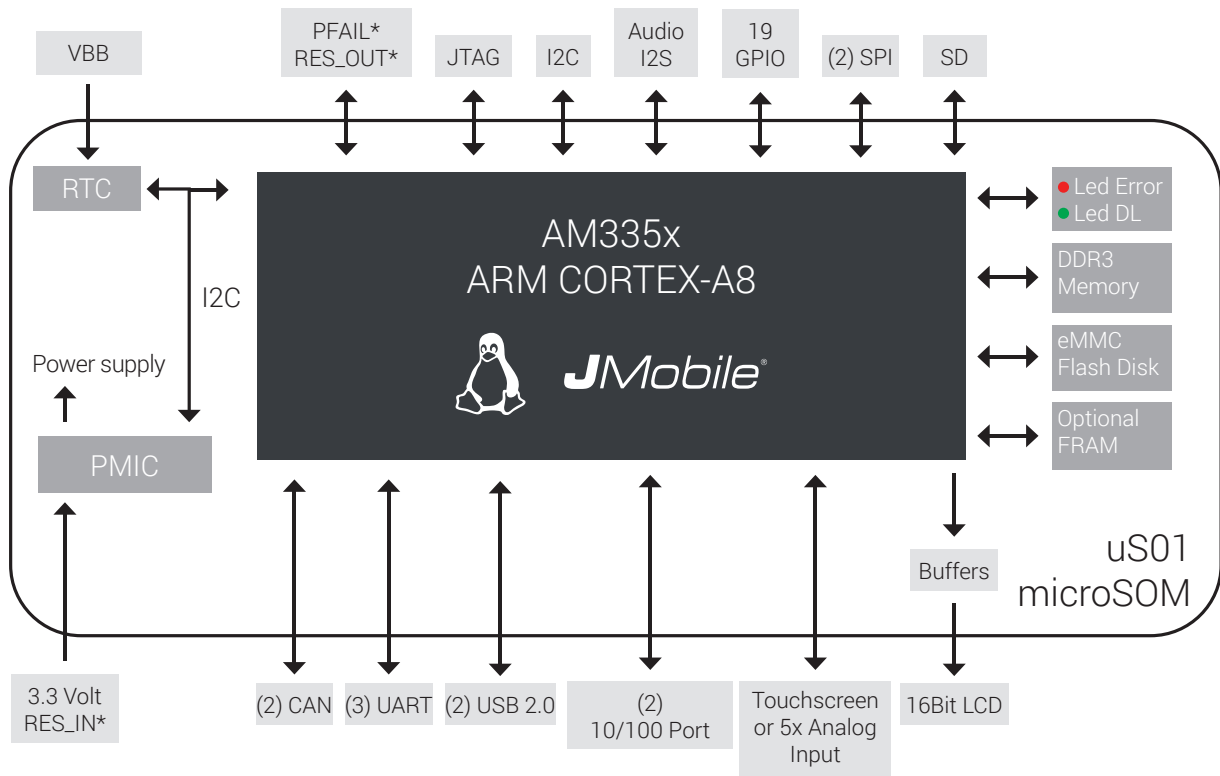
Ordering Information

Model	Part Number	Description
uS01-0001	+US01-0001	TI Sitara AM3354 1Ghz - 512MB DDR3 - 4 GB Flash Disk - Operating Temp. -40 to +85°C
uS01-0002	+US01-0002	TI Sitara AM3352 300Mhz - 256MB DDR3 - 2 GB Flash Disk - Operating Temp. -40 to +85°C
uS01-0003	+US01-0003	TI Sitara - AM3354 1Ghz - 512MB DDR3 - 4 GB Flash Disk - Operating Temp. 0 to +70°C
uS01-0004	+US01-0004	TI Sitara AM3352 300Mhz - 256MB DDR3 - 2 GB Flash Disk - Operating Temp. 0 to +70°C
uS01 Development Kit	+EE16EK-0002	microSOM uS01 Development Kit

microSOM uS02 - Technical Data
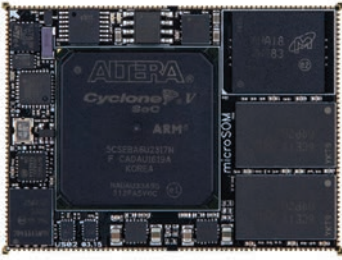
microSOM uS02 Intel Cyclone V SE SoC based new microSOM standard for the increased system performance requirements.

Dimensions	46x35 mm
Temperature Range	-40°C to +85°C
CPU	Intel 5CSEBA2 (A6) Dual ARM Cortex - A9 925 MHz
Integrated with FPGA up to 110K LEs	25/110 KLE
DDR	1 Gbyte DDR3
Flash Disk	Up to 4 Gbytes eMMC (The actual size could vary according to the device's vendor. 2MB min. of boot sectors.)
QSPI	Up to 256 Mbits
EEPROM	4 Kbits
FRAM	64 Kbytes
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	2 (Host V2.0) or 1 (OTG)
Ethernet	2 (RMII ports 10/100 Mb)
SD	1
Serial Port	3
SPI	2
I2C	1
CAN	2
Audio	1 (I2S Channel)
Video	(1) Video Out Controller 16 Bit - Video Input: Digital Interface ITU656
Analog Input	5
GPIO	Several GPIO available depending of FPGA configuration, 2 LVDS I/O with 5 lanes each

Software configurable. Not all selections can be combined
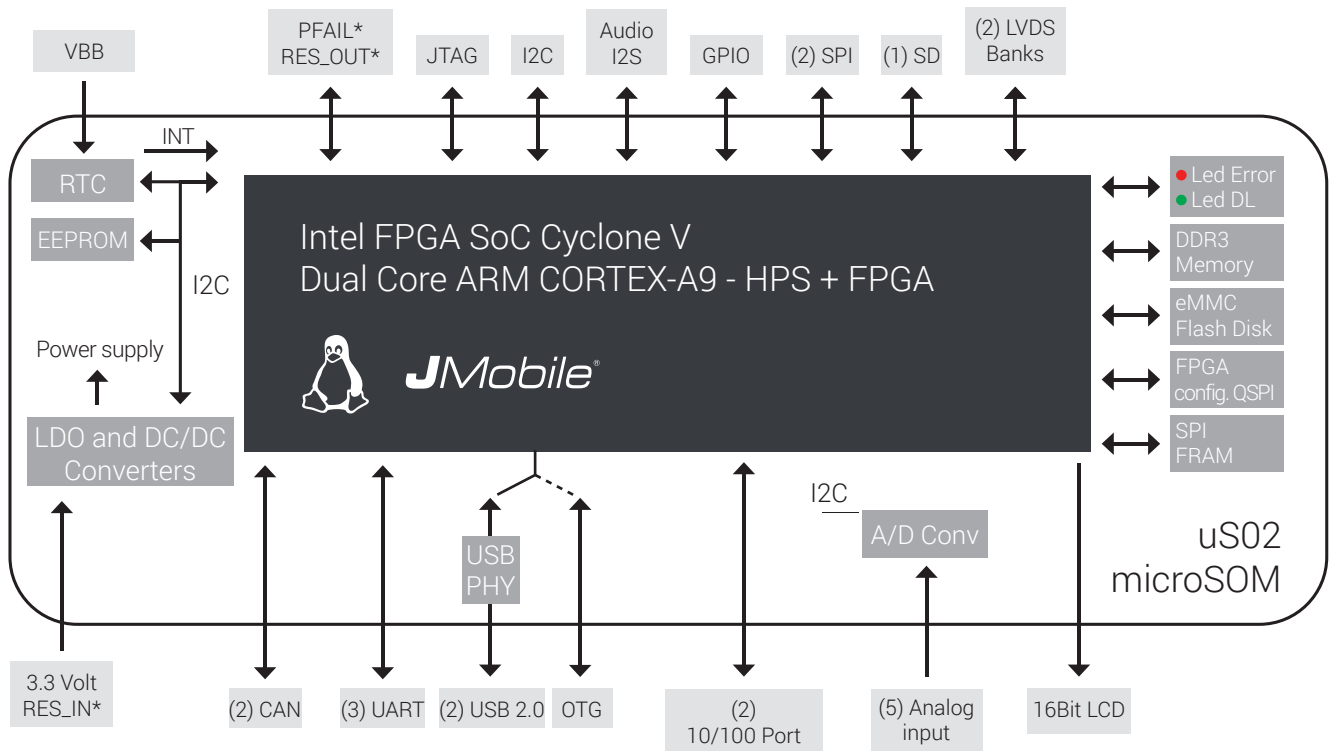
Ordering Information

Model	Part Number	Description
uS02-0001	+US02-0001	Cyclone V SoC - 110 KLE - 1GB DDR3 - 4 GB Flash Disk - Operating Temp. -40 to +85°C
uS02-0002	+US02-0002	Cyclone V SoC - 25 KLE - 1GB DDR3 - 4 GB Flash Disk - Operating Temp. -40 to +85°C
uS02 Dev. Kit	+AL15EK-0001	microSOM uS02 Development Kit

# microSOM uS03 - Technical Data

uS03 is highly innovative, high performance i.MX 6 Quad/ Dual/DualLite/Solo core ARM Cortex-A9 of microSOM family. The uS03 microSOM solution ideal for applications requiring multimedia capabilities and/or high levels of parallel computing.

Dimensions	46x35 mm
Temperature Range	-40°C to +85°C
CPU	i.MX6S Solo up to 800 MHz, i.MX6DL DualLite up to 800 MHz, iMXD Dual up to 800 MHz, i.MX6Q Quad up to 800 MHz
DDR	Up to 2 GBytes high performance LVDDRAM2 Dual Channel mode (2x32 bit)
Flash Disk	Up to 8 Gbytes eMMC
EEPROM	4 Kbits
FRAM	64-Kbytes (optional)
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	2 (Host V2.0), 1 (OTG)
Ethernet	1 (RMII 10/100 Mb) or 1 (RGMII 10/100/1000 Mb)
SD	2
Serial Port	3
SPI	2
I2C	1
CAN	2
Audio	1 (I2S Channel)
Video OUT	1 (Video Out Controller 24 Bit), 1 (Video Out LVDS Dual Ch. or 2 Single Channel), 1 (HDMI 1.4), 1 (MIPI DSI)
Video IN	1 (Camera int. MIPI CSI), 1 (Camera parallel input up to 12 bits)
Analog Input	5
GPIO	27
PCIe	GEN1 (2,5 Gbps)

Software configurable. Not all selections can be combined
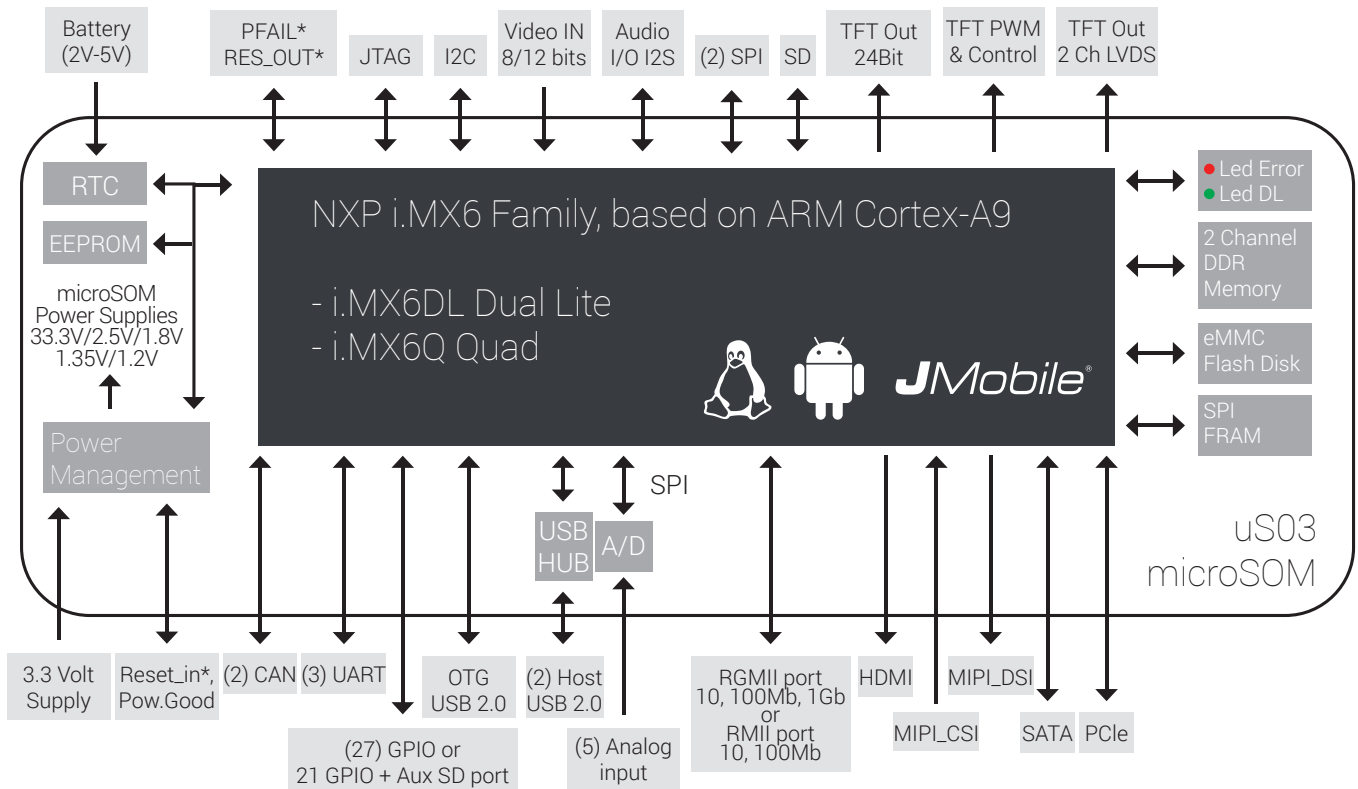
Ordering Information

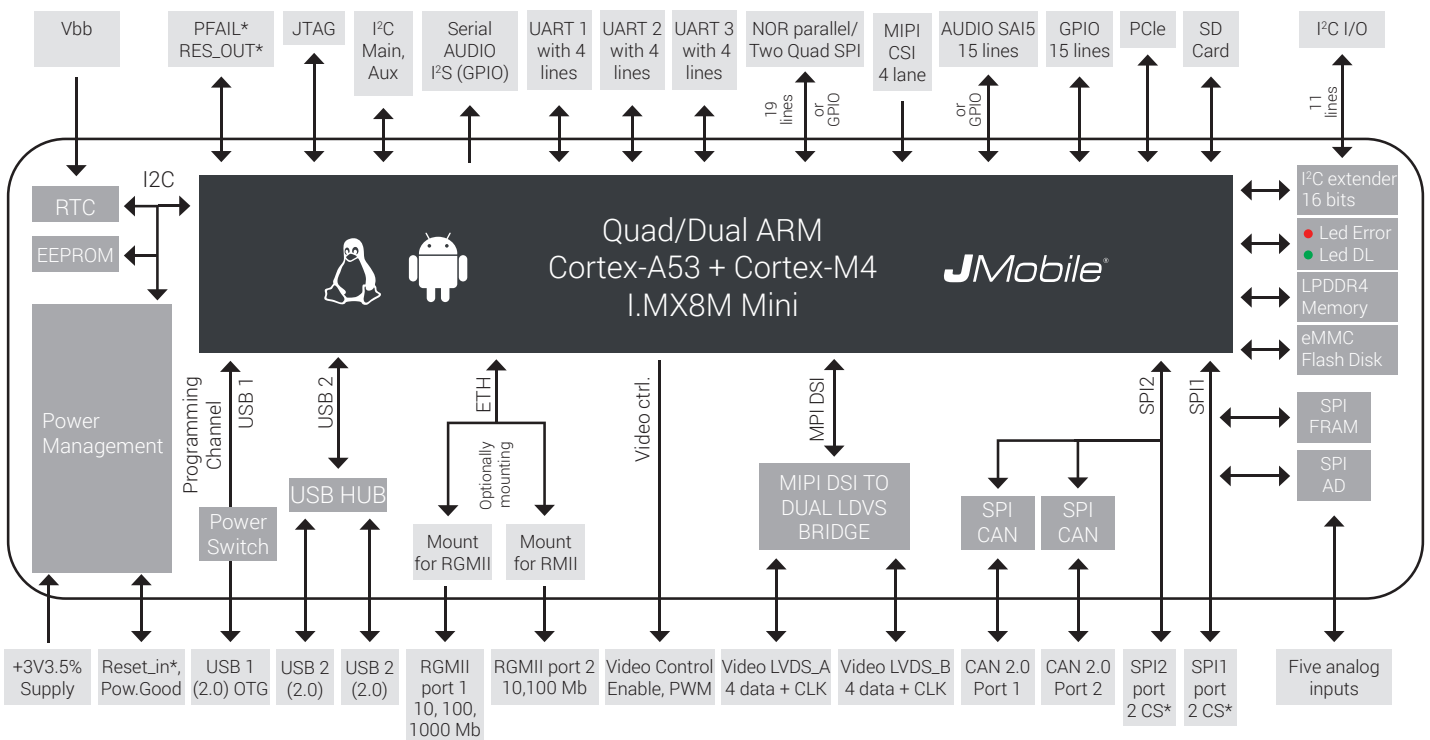| Model	Part Number	Description
uS03-0001	+US03-0001	i.MX6 DualLite 800Mhz - 1GB DDR - 4GB Flash Disk - Operating Temp. -40 to +85°C
uS03-0002	+US03-0002	i.MX6 Quad 800Mhz - 2GB DDR - 8GB Flash Disk - Operating Temp. -40 to +85°C
uS03 Kit	+EE16EK-0001	microSOM uS03 Development Kit

microSOM uS04 - Technical Data

Dimensions	46x35 mm
Temperature Range	-40°C to 85°C
CPU	i.MX8M Mini Quad/Dual ARM Cortex-A53 at 1.6 Ghz
DDR	LPDDR4 x32 @ 3000 MT / 2 GB
Flash Disk	eMMC 5.0, up to 32 GB on board
EEPROM	I²C, 4 Kbits
FRAM	64 Kbytes
External memory (*)	Direct support for NOR parallel flash or 2 QSPI or additional eMMC SD interface (in case of using must be mounted at external carrier board)
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	1 (OTG 2.0), 2 (Host 2.0)
Ethernet	US04-0001 and US04-0003: 1 (RMII port 10/100 Mb) US04-0002 and US04-0004: 1 (RGMII port 10/100/1000 Mb)
SD	Yes, via external connector
Serial Port	3 UARTS (4 lines)
SPI	2 channels with two CS*
I²C	2
CAN	2 using onboard SPI/CAN bridges
Audio	1 (I2S), 1 (Generic audio channel with 15 signals)
Video out	1 Video Out LVDS Single or dual Channel
Video in	1 (MIPI CSI 4 lanes)
GPIO	15 signals from CPU and 13 signals from on board I2C extenders
Analog input	5 single ended channels, 12bits, 1V8 Max
PCIe	Single lane, GEN1, GEN2
Current Consumption	1A @ 3V3 (cpu Quad Core)

microSOM uS04 is highly innovative, high performance module, based at i.MX8M mini family, that is one ideal successor of well known i.MX6. This family incorporates quad/dual Arm® Cortex®-A53, with addition one Cortex-M4 core.

* Software configurable. In case of not using some special interface all pins can be used as GPIO

Ordering Information

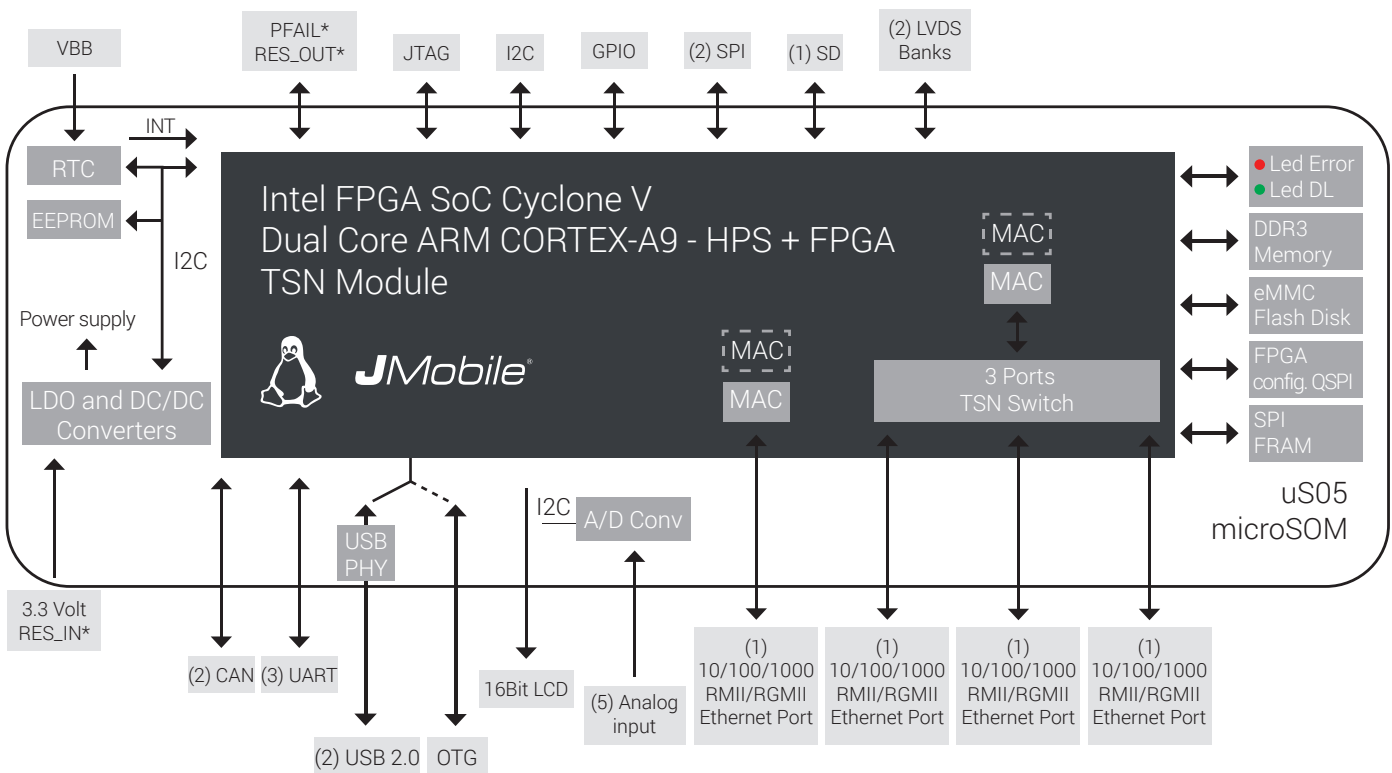| Model	Part Number	Description
uS04-0001	+US04-0001	i.MX8M Mini Quad ARM Cortex-A53 1.6 GHz - 2 GB LPDDR4 - 8GB - RMII - Operating Temp. -40 to +85°C
uS04-0002	+US04-0002	i.MX8M Mini Quad ARM Cortex-A53 1.6 GHz - 2 GB LPDDR4 - 8GB - RGMII - Operating Temp. -40 to +85°C

microSOM uS05 TSN Version - Technical Data

Dimensions	46x35 mm
Temperature Range	-40°C to +85°C
CPU	Intel 5CSEBA6 Dual ARM Cortex - A9 925 MHz Integrated with FPGA 110 KLE
DDR	1 Gbyte DDR3
Flash Disk / QSPI	4 GByte eMMC / 256 Mbits
EEPROM	4 Kbits
FRAM	64-Kbytes
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	2 (Host V2.0) or 1 (OTG)
Ethernet	4 (RGMII 10/100/1000 Mb Ethernet MAC)
TSN	3 Ports Ethernet TSN Switch (RGMII)
SD	1
Serial Port	3
SPI	2
I2C	1
CAN	2
Video	1 (Video Out Controller 16 Bit)
Analog Input	5
GPIO	Several GPIO available depending of FPGA configuration, 2 LVDS I/O with 5 lanes each

microSOM uS05 Intel FPGA now support new Time-Sensitive Networking (TSN) mechanisms. Devices using this product have successfully completed interoperability tests in the renowned Industrial Internet Consortium TSN testbed.

Software configurable. Not all selections can be combined

Ordering Information

Model	Part Number	Description
uS05-0001	+US05-0001	Cyclone V SoC - 110 KLE - 1GB DDR3 - 4 GB Flash Disk - TSN Support - Operat. Temp. -40 to +85°C
uS05-0002	+US05-0002	Cyclone V SoC - 110 KLE - 1GB DDR3 - 4 GB Flash Disk - Operat. Temp. -40 to +85°C
uS05 TSN Kit	+EE16EK-0008	microSOM uS05 Development Kit

gigaSOM gS01 - Technical Data

Dimensions	81,6 x 54 x 4,9 mm
Temperature range	-40°C to +85°C
Power supply	5V,+- 5%, current (TBD)
CPU	Intel® Atom E39XX Quad or Dual cores
FPGA	Intel® Cyclone 10 GX up to 220 KLE
DDR	LPDDR4 up to 8 Gbytes for CPU and DDR3 up to 2 GBytes for FPGA
Flash memory	Up to 64 Gbytes eMMC Flash for CPU, 1 Gbytes QSPI Flash for FPGA
FRAM	64 Kbytes via CPU side
Video out interfaces	eDP, DP0 and DP1 via CPU side
Video in interfaces	CSI MIPI via CPU side (4 lanes)
Audio	HDA and I2S via CPU side
CPU high speed interfaces	6 (USB 2.0), 2 (USB 3.0), 2 (SATA3), 1 (Gigabit Ethernet), PCIe (1 lane), PCIe (2 lane)
CPU low speed interfaces	SMB bus, 5 (I2C), 3 (UART), SPI, LPC, SDIO, SD card, GPIO
FPGA high speed interfaces	34 LVDS pairs plus six 10Gb transceivers (support for FMC LPC and LPC+)
FPGA low speed interfaces	2 (CAN), 3 (SPI), 2 (I2C), 1 (UART), 1 (GPIO)
Interface CPU-FPGA	Dual Lane Gen 2 PCIe
FPGA image	Configurable via CPU

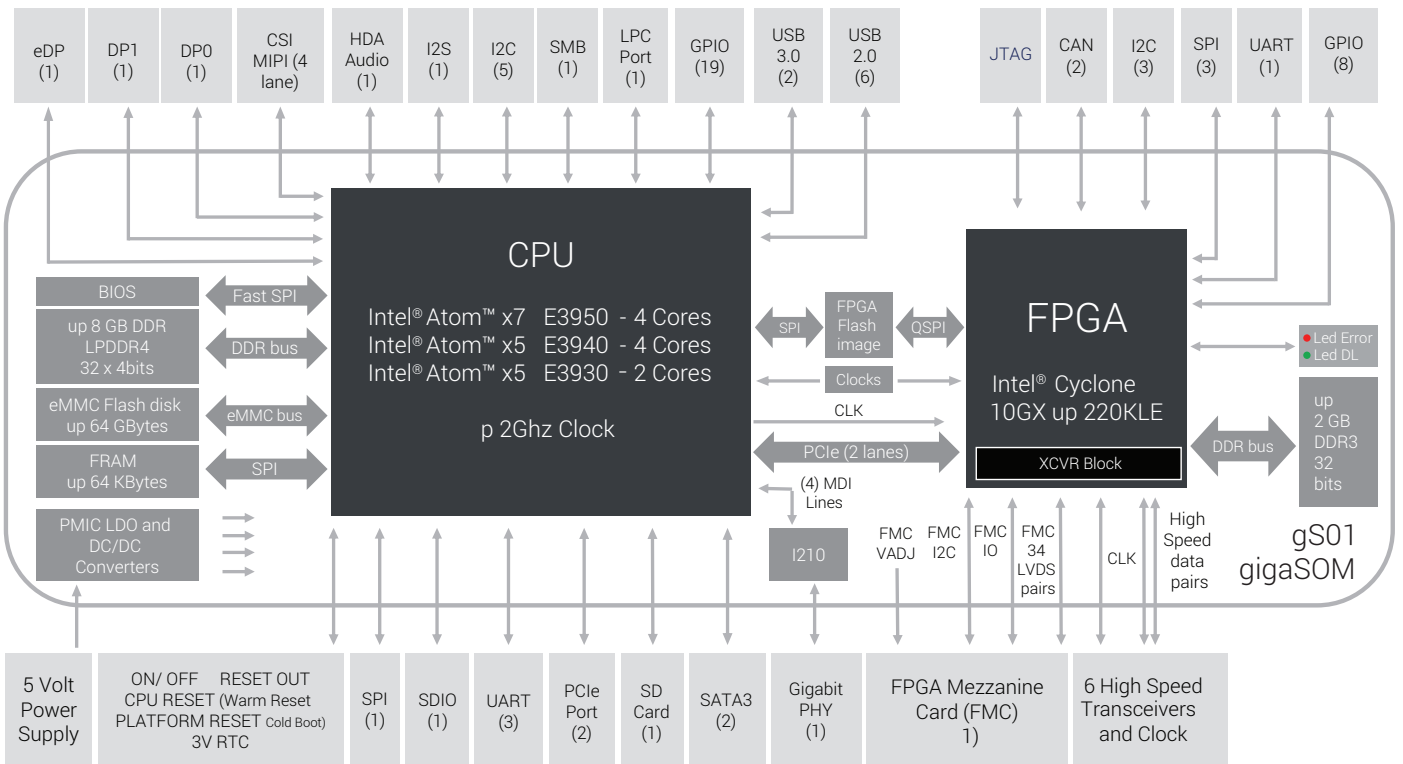GigaSOM gS01 is highly innovative, high performance very efficient, ultra compact SOM, based at Atom E39xx Intel® CPU cores and Intel® Cyclone 10 GX FPGA.

Software configurable. Not all selections can be combined

Ordering Information

Model	Part Number	Description
gS01-0001	+GS01-0001	Intel® Atom E3930 - 4GB LPDDR4 - 32GB Flash Disk - Operating Temp. -40 to +85°C
gS01-0002	+GS01-0002	Intel® Atom E3940 - 8GB LPDDR4 - 64GB Flash Disk - Operating Temp. -40 to +85°C
gS01-0003	+GS01-0003	Intel® Atom E3930 - 4GB LPDDR4 - 32GB Flash Disk - Cyclone 10GX 85KLE - Operating Temp. -40 to +85°C
gS01-0004	+GS01-0004	Intel® Atom E3940 - 8GB LPDDR4 - 64GB Flash Disk - Cyclone 10GX 220KLE - Operating Temp. -40 to +85°C
gS01 Dev. Kit	+EE16EK-0011	gigaSOM gS01 Development Kit

Create Something Different

Use the EXOR Embedded development kits and OpenHMI kits to start your own creative process.
Development kits for all the SOMs, enable software development to begin immediately. This is true even if the final hardware design has not yet been decided upon.
OpenHMI technologies guarantee the best time to market for our customers who can integrate our HW directly into their product.

gS01 Development Kit
Development Board based on GS01-0004 E3940 plus Cyclone X FPGA
Ord. code: +EE16EK-0011

Kairos Board
with 3 Ethernet port and with TSN switch support
Ord. code: +EE16EK-0010

nS01 Development Kit
Development board plus 7″ display with PCAP Touch, based on nS01-0002 nanoSOM with JMobile and CODESYS PLC demo version
Ord. code: +EE16EK-0005

uS01 Development Kit
Development board plus 7″ Display with PCAP Touch, based on uS01-0004 SOM with JMobile and CODESYS PLC demo version
Ord. code: +EE16EK-0002

uS02 Development Kit
Development board plus 7″ Display with PCAP Touch, based on US02-0001 (Cyclone V 110KLE) SOM with JMobile and CODESYS PLC demo version
Ord. code: +AL15EK-0001

uS03 Development Kit
Development board plus 7″ Display with PCAP Touch, based on US03-0002 (iMX6 Quad Core with 2 GB RAM and 8 GB eMMC) SOM and with JMobile and CODESYS PLC demo version
**Ord. code: +EE16EK-0001**

uS05 Development Kit
Development board plus 7″ Display with PCAP Touch, based on uS05 SOM with JMobile and CODESYS PLC demo version. uS05 Development Kit supports TSN protocol.
Ord. code: +EE16EK-0008

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5" OpenHMI nS01 Dev. Kit - Technical Data

OpenHMI nS01 is innovative embedded intelligent IoT controller based nS01 i.MX 6 UL ARM Cortex-A7 of nanoSOM module and it is fully integrated with high resolution 5 inch TFT 800x480 including high reliability Projective Capacitive Touch screen sensor.

CPU	
CPU Type	iMX.6UL
Core Class	Single Core Cortex-A7 528Mhz
RTC	30 ppm @25°C − Batt. backup
Memory	
eMMC	4GByte
RAM	512MByte DDR
EEPROM	4KBits
SD Card Slot	1 (Standard SD card)
Operating System	
Supported OS	Linux Yocto
Comm. Interfaces	
Ethernet	2 (10/100 Mb)
Wifi	802.11 a/b/g/n (2.4 - 5 GHz)
USB 2.0	1 (USB OTG) + 2 (USB Host)
CAN Fieldbus	1 (CAN (isolated))
Serial Port	1 (RS232/RS422/RS485)
SPI / I2C	2 (SPI) / 1 (I²C) / Serial TTL / I/O Connector
Audio	
Audio Interface	MIC/SPKL-SPKR 3,5mm Headset connector + Buzzer
Display and Touch	
Size	5"
Resolution	800x480
Brightness	300 cd/m2
Backlite Lifetime	Typ. 30.000 h.
Colors	16 bit
Touch	PCAP - Multitouch Controller
I/O	
Analog Input	2 (0 to 5 VDC)
Analog Output	2 (0 to 5 VDC)
Mechanical	
Cover Glass	Optional
Dim. / Thickness	121x76x38 mm
Power Supply	
Supply voltage	18 to 32 VDC
Consumption	Typ. 5W
Operating Conditions	
Operating Temp. / Hum.	-20 to +60°C / 5 to 90% RH
Storage temp	-30 to +85°C
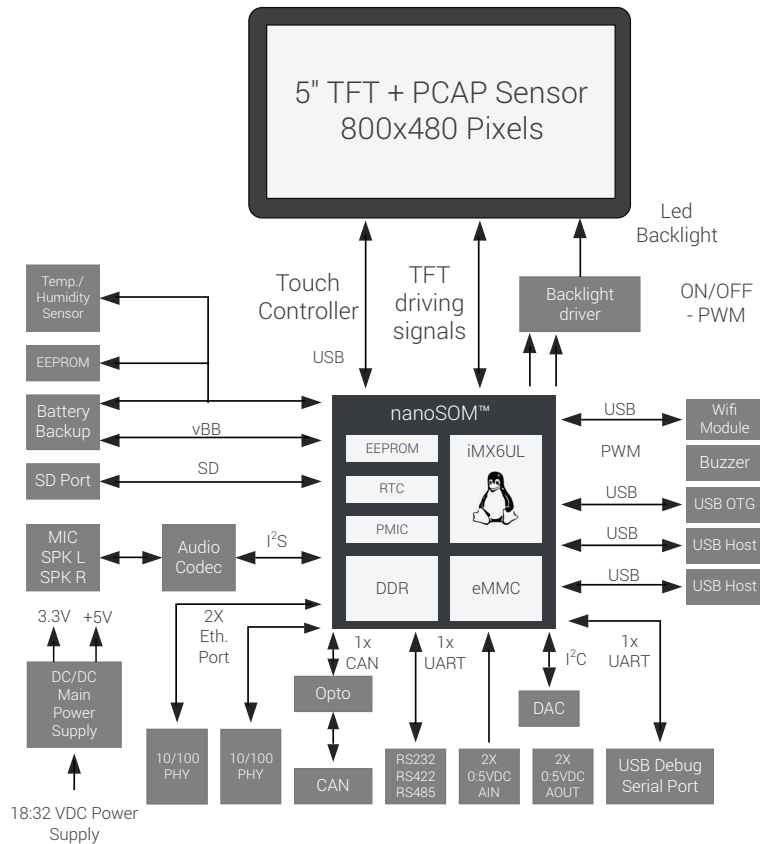
Ordering Information

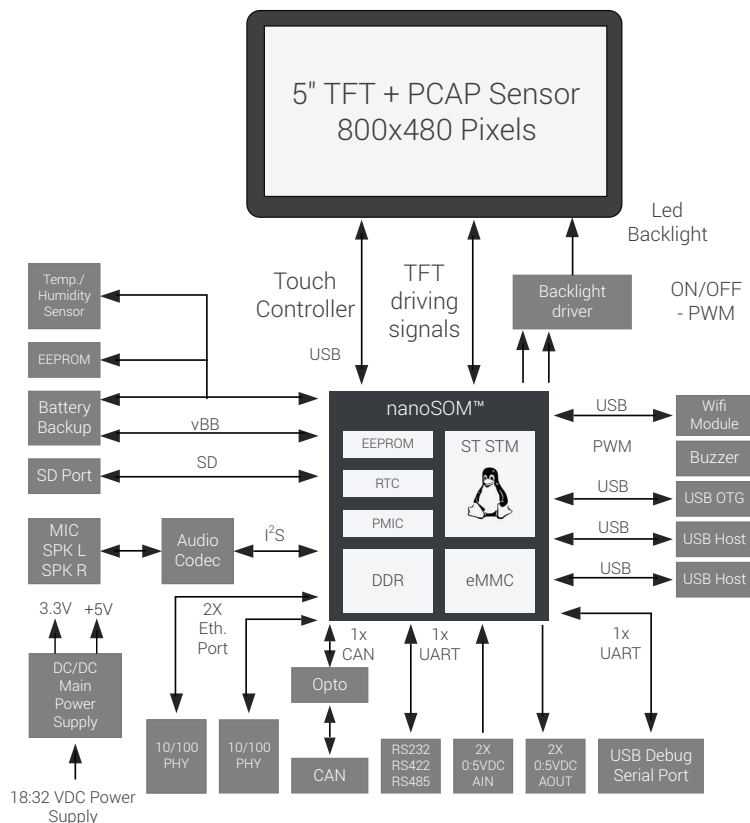| Model	Part Number	Description
5" OpenHMI nS01 Development Kit	+EE16EK-0007	i.MX6UL - Industrial - -20°C to +60°C - 528Mhz - 512MByte DDR - 4GByte Flash disk - 4Kbits EEPROM

5" OpenHMI nS02 Dev. Kit - Technical Data

STM32MP157
up to 800 Mhz

OpenHMI nS02 is innovative embedded intelligent IoT controller based nS02 STM32MP157 Dual ARM Cortex-A7 plus M4 MPU with 3D GPU and it is fully integrated with high resolution 5 inch TFT 800x480 including high reliability Projective Capacitive Touch screen sensor.

CPU	
CPU Type	STM32MP157
Core Class	Dual Cortex -A7 plus M4 MPU with 3D GPU
RTC	30 ppm @25°C – Batt. backup
Memory	
eMMC	8 GB
RAM	1 GByte DDR
EEPROM	4 KBits
SD Card Slot	1 (Standard SD card)
Operating System	
Supported OS	Linux Yocto
Comm. Interfaces	
Ethernet	2 (10/100 Mb)
Wifi	802.11 a/b/g/n (2.4 - 5 GHz)
USB 2.0	1 (USB OTG) + 2 (USB Host)
CAN Fieldbus	1 (CAN (isolated))
Serial Port	1 (RS232/RS422/RS485)
SPI / I2C	2 (SPI) / 1 (I²C) / Serial TTL / I/O Connector
Audio	
Audio Interface	MIC/SPKL-SPKR 3,5mm Headset connector + Buzzer
Display and Touch	
Size	5
Resolution	800x480
Brightness	300 cd/m2
Backlite Lifetime	Typ. 30.000 h.
Colors	16 bit
Touch	PCAP - Multitouch Controller
I/O	
Analog Input	2 (0 to 5 VDC)
Analog Output	2 (0 to 5 VDC)
Mechanical	
Cover Glass	Optional
Dim. / Thickness	121x76x38 mm
Power Supply	
Supply voltage	18 to 32 VDC
Consumption	Typ. 5W
Operating Conditions	
Operating Temp. / Hum.	-20°C to +70°C / 5 to 90% RH
Storage temp	-30°C to +80°C

Ordering Information

Model	Part Number	Description
5" OpenHMI nS02 Development Kit	+EE16EK-0009	STM32MP157 - Industrial - 20°C to +70°C - Up to 800 Mhz - 1GB DDR - 8GByte Flash disk - 4Kbits EEPROM

IoT Gateways

eXware Series

First Step IIoT Compatibility

- Plug and Forget integration into existing infrastructure
- Device data flow easily configured
- JMobile protocols and gateway functions
- JM4web HTML5 interface for web HMI
- CODESYS V3: supports network stacks and local I/O expandability
- Direct OPC UA communications
- CORVINA Cloud secure remote connectivity
- Plug-in module for system expansion
- 2 or 3 Ethernet ports for physical separation of the OT and IT networks
- Rugged and Beautiful all metal design
- Wide operating temperature range
- System settings by web browser
- Trusted and secure Linux-based operating system
- Secure HTTPS/TLS encrypted data transmissions
- Mobile Communication via PLCM09 2G/3G modem
- Support for Geo-Localization*
- IoT data distribution via MQTT

Overview

The eXware series represents a prudent first step into the implementation of IIoT and Industry 4.0 compatibility.

Acting as the **central element in IIoT landscape** the eXware can communicate between automation devices, cloud, fog and applications.

This central role offers companies the chance to start at a uncomplicated level in IIoT and yet allows enormous future expansion into more complex aspects of Industrie 4.0 as the workforce gains knowledge of this form of digital thread process and control.

For **maximum security** the physical separation of the OT and IT networks with two ethernet ports has been provided and this avoids simultaneous attacks.
Secure HTTPS/TLS encrypted data transmissions with signed and packet transfer ensures against data theft and eavesdropping.
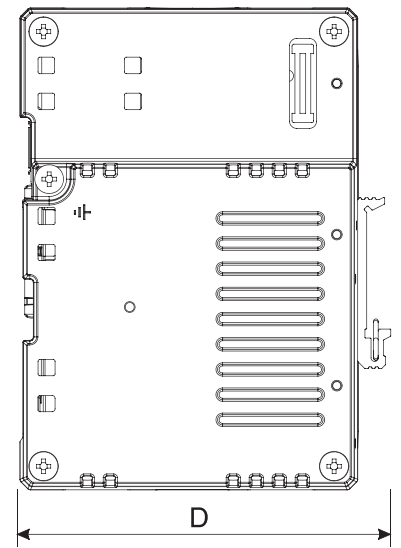
Seamless integration is achieved with the vast library of protocols that is common with JMobile software. Existing installations are easily employed and upgraded when necessary and very little programming skill is needed given the brilliant User Interface of JMobile.
Through use as a **gateway**, a powerful **HMI**, a **PLC** with CODESYS V3 or a **secure router**, the eXware facilitates data intensive and complex IIoT applications to be enabled.

* Roadmap 2020

eXware703 - Technical Data

System Resources	
CPU	ARM Cortex-A8 1 GHz
Operating System	Linux RT
Flash	4 GB
RAM	512 MB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100)
USB port	1 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 2 serial ports using plug-in modules.
SD card	Yes
Expansion	1 slot for plug-in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.35 A max. at 24 Vdc
Input Protection	Electronic
Battery	Yes
Environment Conditions	
Operating Temp	-20°C to +60°C - Plug-in modules and USB devices may limit max temperature to +50 °C.
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5 - 85% RH, non condensing
Protection Class	IP20
Dimensions and Weights	
Faceplate LxH	45x134 mm (1.77x5.27")
Depth D	102 mm (4.01")
Weight	0.6 Kg
Mounting	DIN Rail (TS35)
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments, EN 60945, EMC Emissions and Immunity for marine applications
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2: Ex nA IIC T5 Gc
ATEX	Zone 2: II 3 G Ex nA IIC T5 Gc
DNV-GL	Yes
RCM	Yes

1 Serial port
2 Power supply
3 Ethernet port 1 (10/100 Mb)
4 Ethernet port 0 (10/100 Mb)
5 USB port 1
6 Expansion slots for plug-in modules
7 SD Card slot

Ordering Information

Model	Part Number	Description
eXware 703	+EXW703U0P1	IoT controller and Gateway, 2 Ethernet ports, 1 serial port, 1 USB port

eXware707 - Technical Data

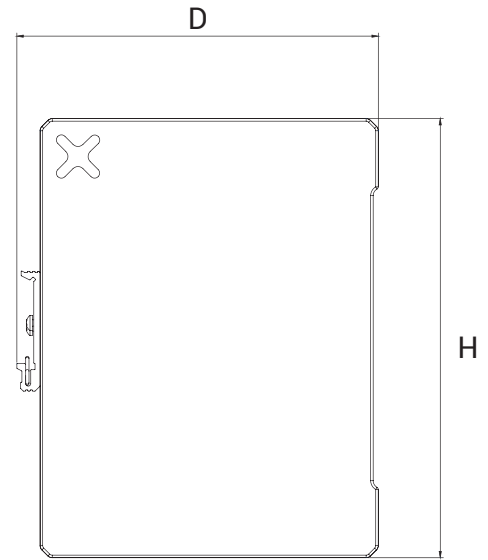| System Resources	
CPU	ARM Cortex-A9 800 MHz dual core
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slots for plug-in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.5 A max. at 24 Vdc
Input Protection	Electronic
Battery	Yes
Environment Conditions	
Operating Temp	-20°C to +60°C - Plug-in modules and USB devices may limit max temperature to +50 °C.
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5 - 85% RH, non condensing
Protection Class	IP20
Dimensions and Weights	
Faceplate LxH	44 x 174 mm
Depth D	144 mm
Weight	0.7 Kg
Mounting	DIN Rail (TS35)
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments EN 60945, EMC Emissions and Immunity for marine applications
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2: Ex nA IIC T5 Gc / -20°C ≤ Tamb ≤ +60°C. Limited to 0°C ≤ Tamb ≤ +50°C with PLIO03
ATEX	Zone 2: II 3 G Ex nA IIC T5 Gc / -20°C ≤ Tamb ≤ +60°C. Limited to 0°C ≤ Tamb ≤ +50°C with PLIO03
DNV-GL	Yes
RCM	Yes

1 Serial port
2 Power supply
3 Ethernet port 0 (10/100/1000 Mb)
4 Ethernet port 1 (10/100 Mb)
5 Ethernet port 2 (10/100 Mb)
6 USB ports 1 and 2
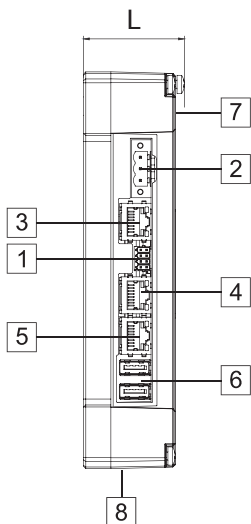7 Expansion slots for plug-in modules
8 SD Card slot

Ordering Information

Model	Part Number	Description
eXware 707	+EXW707U0P1	IoT controller and Gateway, dual core CPU, 3 Ethernet ports, 1 serial port, 2 USB ports

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eXware707Q - Technical Data

System Resources	
CPU	ARM Cortex-A9 800 MHz quad core
Operating System	Linux RT
Flash	8 GB
RAM	2 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slots for plug-in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.55 A max. at 24 Vdc
Input Protection	Electronic
Battery	Yes
Environment Conditions	
Operating Temp	-20°C to +60°C - Plug-in modules and USB devices may limit max temperature to +50 °C.
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5 - 85% RH, non condensing
Protection Class	IP20
Dimensions and Weights	
Faceplate LxH	44 x 174 mm
Depth D	144 mm
Weight	0.7 Kg
Mounting	DIN Rail (TS35)
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments EN 60945, EMC Emissions and Immunity for marine applications
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2: Ex nA IIC T5 Gc / -20°C ≤ Tamb ≤ +60°C. Limited to 0°C ≤ Tamb ≤ +50°C with PLIO03
ATEX	Zone 2: II 3 G Ex nA IIC T5 Gc / -20°C ≤ Tamb ≤ +60°C. Limited to 0°C ≤ Tamb ≤ +50°C with PLIO03
DNV-GL	Yes
RCM	Yes

1 Serial port
2 Power supply
3 Ethernet port 0 (10/100/1000 Mb)

4 Ethernet port 1 (10/100 Mb)
5 Ethernet port 2 (10/100 Mb)
6 USB ports 1 and 2

7 Expansion slots for plug-in modules
8 SD Card slot

Ordering Information

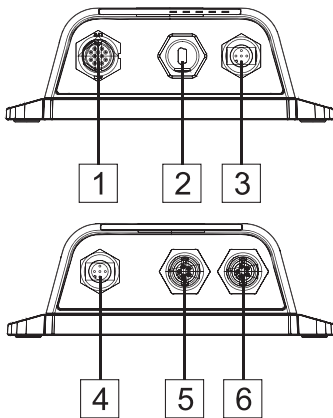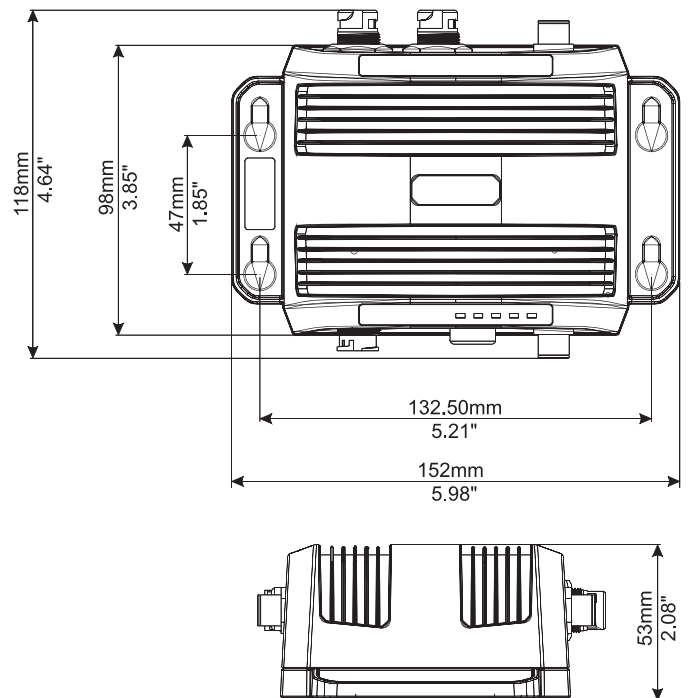| Model	Part Number	Description
eXware707Q	+EXW707QU0P1	High performance IoT controller and gateway, quad core CPU, 3 Ethernet ports, 1 serial port, 2 USB ports

eXware705 - Technical Data

System Resources	
CPU	ARM Cortex-A8 300 MHz
Operating System	Linux RT
Flash	2 GB
RAM	256 MB
FRAM	64 KB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100)
USB port	1 (Host v. 2.0, max. 100 mA)
Serial port	2 (RS-232, RS-485, RS-422, software configurable, optical isolation)
CAN Port	2 (with optical isolation)
SD card	-
Expansion	-
LED indicators	5 (power, Ethernet status)
Ratings	
Power supply	24 VDC (9 to 32 VDC)
Current Consumption	0,15A max. at 24 VDC
Input Protection	Electronic
Battery	Yes
Environment Conditions	
Operating Temp	-15°C to +55°C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5 - 85% RH, non condensing
Protection Class	IP67
Dimensions and Weights	
Faceplate LxH	152x118 mm
Depth D	53 mm
Weight	280g
Approvals	
CE	EN 60945, EMC Emissions and Immunity for marine applications, Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
DNV-GL	Yes
RCM	Yes

1 Power supply, serial port
2 USB port
3 CAN port
4 CAN port
5 Ethernet port 1 (10/100 Mb)
6 Ethernet port 2 (10/100 Mb)

Ordering Information

Model	Part Number	Description
eXware705	+EXW705U001	Ruggedized IoT controller and gateway, 2 Ethernet ports, 2 CAN ports, 2 serial ports, 1 USB port

Accessories

Model	Part Number	Description
PLCM01	+PLCM01U0P1	Plug-in module CAN
PLCM02	+PLCM02U001	Plug-in module KNX/EIB (TP interface)
PLCM03	+PLCM03U0P1	Plug-in module RS-232
PLCM04	+PLCM04U0P1	Plug-in module RS-422/485 with optical insulation
PLCM05	+PLCM05U0P2	Plug-in extender for use with PLIO03/PLIO04 (only for eX705)
PLCM06	+PLCM06U0P1	Plug-in module Profibus DP slave 12 MB
PLCM09	+PLCM09U0P1	Plug-in Wireless Modem
CODESYS V3 SoftPLC	+SWLC00R000000	CODESYS V3 activation license
PLIO03	+PLIO03U0P1	I/O Module with 20 DI 24 VDC, 12 DO 24 VDC 0,5 A, 8 AI (4 diff or 8 single or 4 PT100 or 4 TC), 4 AO, 1 PT100 Cold Junct
PLIO04	+PLIO04U0P1	I/O Module with 10 DI 24 VDC, 10 DO SSR 1.4 A, 4 Programmable AI voltage/PT100/TC, 4 AI voltage, 1 PT100
PLIO06	+PLIO06U0P1	Compact I/O module. 8 DI, 6 DO, 1 Relay Output
PLIO07	+PLIO07U001	Compact I/O module. 2 Relay Outputs

PLCM09 Plug-in Wireless Modem

PLCM09 is a compact and robust plug-in module designed to add Internet connectivity to systems based on eX700 Series and eXware.

- Designed for eX700 and eXware product families.
- Compatible with operation of CORVINA Cloud secure service
- 2G/3G wireless communication module
- Worldwide connectivity
- Supports GSM/GPRS/EDGE and UMTS/HSDPA/HSUPA cellular networks
- 2 digital inputs/2 digital outputs (SSR) with optical isolation
- 4 LED indicators (module status and network status)
- microSIM slot accessible by user
- Powered via plug-in connection.
- Plug-in extension connector

Highlights

PLCM09 is a compact and robust plug-in module designed to add Internet connectivity to systems based on eX700 Series and eXware. It is a 2G/3G wireless modem supporting GSM/GPRS/EDGE and UMTS/HSDPA/HSUPA cellular networks.
The device is compatible with operation of EXOR CORVINA Cloud secure service.
In combination with CORVINA Cloud services you can easily implement basic IIoT functions and estabilish a VPN to protect access to your devices, streamline connection to cloud services.

Mobile

Mobile

Secure Mobile HMI in your Hand

- Certified Wireless Safety SIL2 (H4)
- JMobile Integrated
- Easy to Program
- Stunning Design/Ergonomics
- Multiple Integrated Keys
- Potentiometers
- Handwheel
- State Selector
- Bluetooth Safety (H4)
- Additional Wi-Fi Connectivity (H4)
- Magnets to Hang Devices in Convenient place
- Up to 20 m connection for the H3

Overview

The Handheld device range from EXOR is a true HMI in your hand: powerful and easy to program to your needs, they remain the perfect choice for safe mobile requirements.
A specialized section of the market where strict attention must be given to the rigourous safety laws that govern the use of handheld devices.

The wireless option leads to many positive features being enhanced:

- Higher Safety in all areas with no pendant wires to causes issues
- Less injury risks
- No broken cable downtime
- Far less physical fatigue of operator
- Increased concentration of operator

The wireless connection is provided by a Unique electronic key which allows for multiple handheld – machine connections to take place simultaneously without any concern for connectivity and of course safety.

H3 - Technical Data

System Resources	
Display - Colors	TFT LED - 64K
Resolution	480x272
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 600 MHz
Operating System	Microsoft Windows CE 6.0
Flash	128 MB
RAM	256 MB
Real Time Clock, RTC Back-up	Yes
Handwheel	Yes (option)
Potentiometer	2
State Selector Switch	16 positions
Emergency stop	Yes, Hardwired
Enabling Switch	Hardwired, 3-positions
Interface	
Ethernet	10/100 Mbit (selected models)
USB port	1 Host V2.0
Serial	1 RS-232, RS-422, RS-485 (selected models)
Ratings	
Power supply (charging station)	24 Vdc (18 to 30 Vdc)
Current Consumption	0.25 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	+5 to +45°C
Storage Temp	-20 to +70°C
Operating / Storage Humidity	5-95% RH, non condensing
Protection Class	IP64
Dimensions and Weights	
Faceplate LxH	220x130 mm
Depth D+T	50 mm
Weight	Approx 0.8 Kg, (not including cable)
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508 (only +EP3H3REJ2H0YE2, +EP3H3REJ4H0YE2)
RCM	Yes

1 Cable
2 Emergency stop push-button
3 Enabling device
4 State Selector
5 Screen
6 Potentiometers
7 Handwheel (Optional)
8 Membrane Keypad
9 Touchscreen pen
10 Sticker
11 Mounting magnets
12 Status LED's
13 Rubber cup for USB
14 Protecting covers
15 Hand Grip
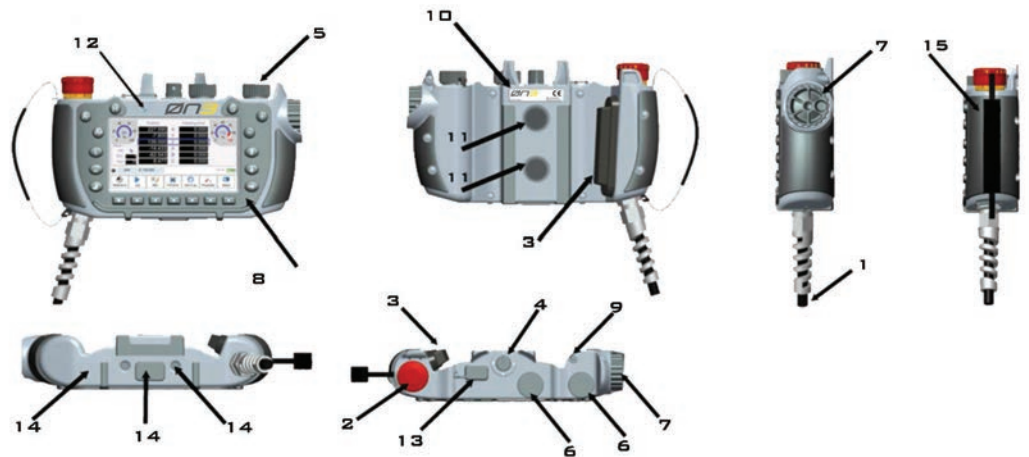
Ordering Information

Model	Part Number	Description
H3	+EP3H3REJ200YE1	HMI H3 0N3 WIRED 10 m ETHERNET JM
H3	+EP3H3REJ400YE1	HMI H3 0N3 WIRED 20 m ETHERNET JM
H3	+EP3H3REJ2H0YE1	HMI H3 0N3 WIRED 10 m ETH+HANDWHEEL JM
H3	+EP3H3REJ4H0YE1	HMI H3 0N3 WIRED 20 m ETH+HANDWHEEL JM
H3	+EP3H3RSJ200YE1	HMI H3 0N3 WIRED 10 m SERIAL JM
H3	+EP3H3RSJ2H0YE1	HMI H3 0N3 WIRED 10 m SERIAL+HANDWHEEL JM
H3	+EP3H3REJ2H0YE2	HMI H3 0N3 10 m ETH+HANDWHEEL CIRCULAR CONNECTOR JM - UL APPROVAL
H3	+EP3H3REJ4H0YE2	HMI H3 0N3 20 m ETH+HANDWHEEL CIRCULAR CONNECTOR JM - UL APPROVAL
H3	+EP3H00000X0YA2	CONNECTION BOX H3 CIRCULAR CONNECTOR - UL APPROVAL
H3	+EP3H00000B0YA0	STANDBY STATION H3 - HOLDER FOR H3

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H4 - Technical Data

System Resources	
Display - Colors	TFT LED - 64K
Resolution	480x272
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 600 MHz
Operating System	Microsoft Windows CE 6.0
Flash	128 MB
RAM	256 MB
Real Time Clock, RTC Back-up	Yes
Handwheel	Yes
Potentiometer	2
State Selector Switch	16 positions
Emergency stop	Yes
Enabling Switch	3 positions
Interface	
Ethernet	Wi-Fi 802.11
USB port	1 Host V2.0
Bluetooh	Reserved for safety functions
Ratings	
Power supply (charging station)	24 Vdc (18 to 30 Vdc)
Current Consumption	0.25 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	+5 to +45°C
Storage Temp	-20 to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP64
Dimensions and Weights	
Faceplate LxH	220x144 mm
Depth D+T	63 mm
Weight	Approx 0.8 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
Safety	2006/42/EC, EN ISO 13849-1:2008, EN 62061 :2005/A1:2013, EN 60204-1:2006/A1:2009
Safety functions	Emergency Stop cat 3, PL d / SIL 2 Enabling cat 3, PL d / SIL 2 State selector, cat 1, PL c / SIL 1
UL	cULus: UL508

1 Token receptacle
2 Stop pushbottom
3 Enabling device
4 State Selector
5 Potentiometers
6 Handwheel
7 Membrane Keypad
8 Touchscreen pen
9 Mounting magnets
10 Status LED's
11 Battery Recharging Contacts
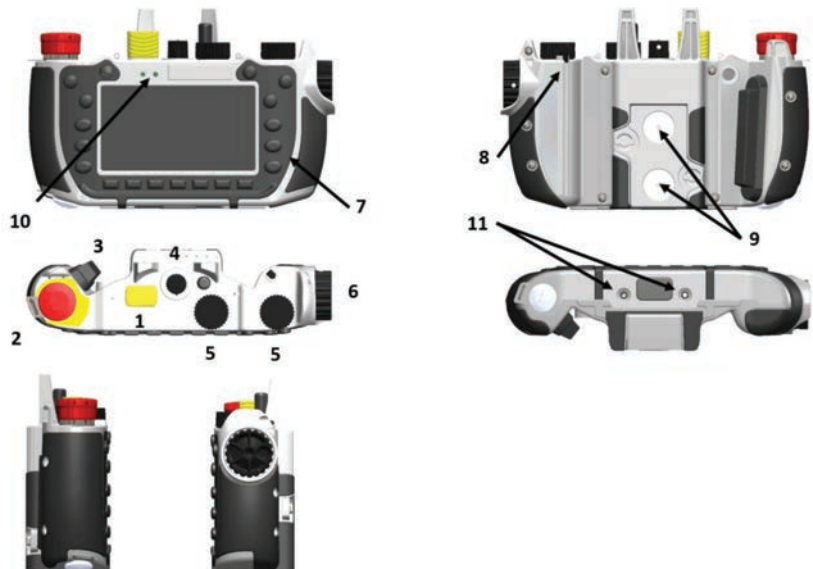
Ordering Information

Model	Part Number	Description
H4	+EP4H4SWJ0H0YE0	HMI H4 0N3 WIRELESS JM
H4	+EP4H00000A0YA0	ANTENNA + COUPLING TOKEN
H4	+EP4H00000R0YA0	RECHARGING STATION H4
H4	+EP4H00005C0YA0	CIS H4

Food & Beverage and Pharmaceutical Series

State of the Art IP69

- Extensive Guarantee despite no Protective Casing
- Ease of Cleaning
- Real World IP69 Rating
- Glass Strength with Polyester Coating
- High Pressure 80°C Water Resistant
- Perfect Stainless Steel Bezel Design
- Acid Chemical Resistant
- Food Compliant Gasket
- Front panel and gasket guidelines:
1. DIN EN1672-2
2. EHEDG / FDA 21 CFR 177.2006

Overview

Where tough legislation requires that handling, preparation, processing and packaging of food is done to be extremely hygienic, the outstanding 7" and 15" Food and Beverage HMI from Exor are the **best choice for manufacturer and final consumer.**
No other company offers such specialized solutions to the everyday problems faced in the Food and Beverage industry and in **particular the meat processing sector**.

The food & beverage and pharmaceutical sectors are very different environments from the industrial world. Although the set up of the production facilities might seem similar, **there are a series of legislative requirements and guidelines that are dramatically more onerous.**
EXOR has adapted its highly successful eTOP500 Series and eX700 Series to meet these challenges. EXOR alters the panels in many areas to comply with the CEI EN 60529 guidelines with an **incredible level of attention to eliminating the accumulation of food, grease, and product powder particles.**

The rugged stainless-steel fronts are **highly polished to allow particles to flow away** from the surface. The frame has the optimal **angle of contact to the machine surface** to both enable cleaning liquids to wash away and also not to allow bacteria or microbes to remain.
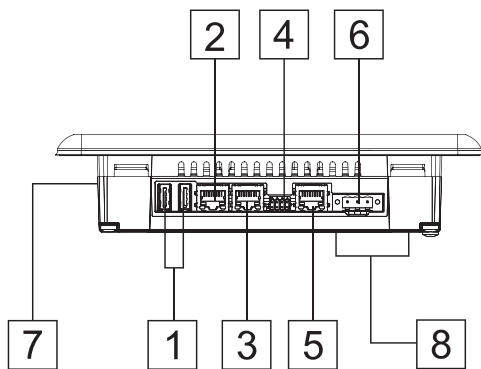All these measures and more mean that EXOR can offer this product at a **high protection front panel rating of IP6**: resistance to highly aggressive corrosive cleaning substances and resistance to frequent washing at high pressure and high temperature.

No longer will you need to contain the panel within a costly cabinet as is so often seen. Industry sectors that might require this series are the **food, pharmaceutical and chemical industries or anywhere, where the highest level of attention to hygiene is a requirement for reputational risk.**
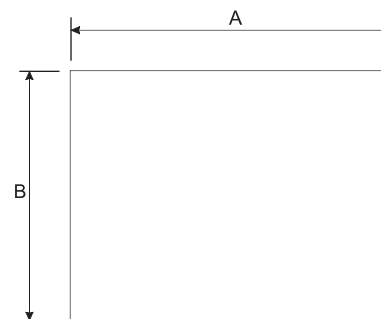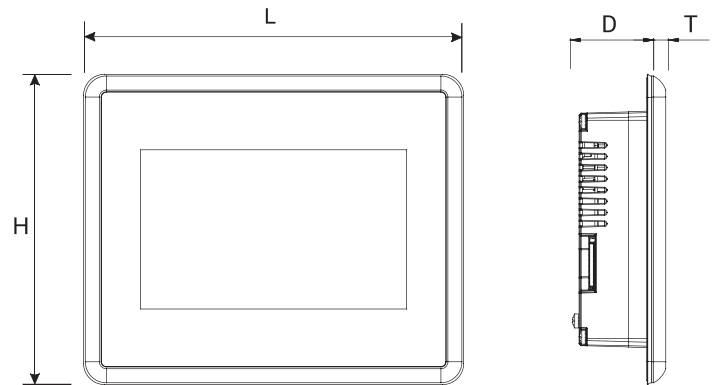
eX707FB - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 LED - 16M
Resolution	800x480, WVGA
Brightness	500 Cd/m² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 dual core 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP69 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	217x177 mm (8.54x6.96")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	45+10 mm (1.77+0.4")
Weight	2.5 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL61010-1 / UL61010-2-201
RCM	Yes

1 USB ports 1 and 2
2 Ethernet port 2 (10/100 Mb)
3 Ethernet port 1 (10/100 Mb)
4 Serial port
5 Ethernet port 0 (10/100/1000 Mb)
6 Power supply
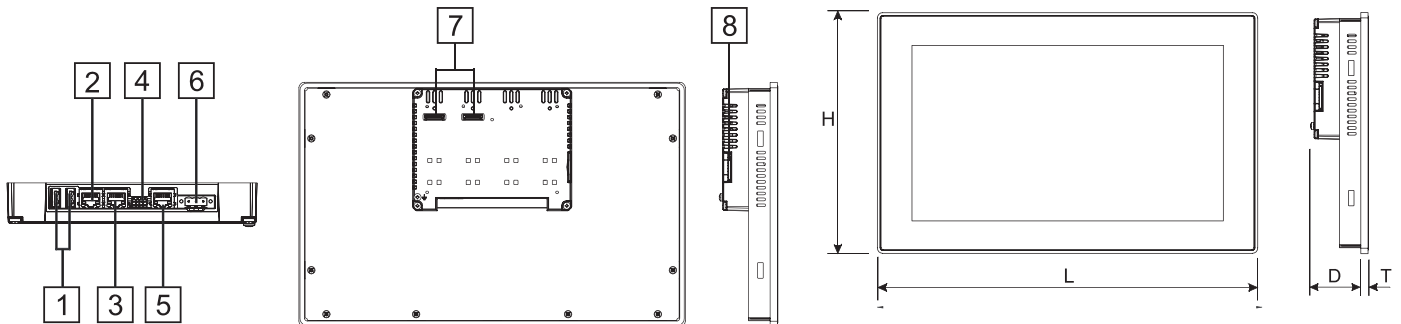7 SD Card slot
8 2 Expansion slots for plugin modules

Cut-out

Ordering Information

Model	Part Number	Description
eX707FB	+EX707U4F1	7" widescreen TFT color projected capacitive touchscreen. Stainless steel bezel. Ethernet and USB interfaces. JMobile runtime. Blue front panel

eX715FB - Technical Data

System Resources	
Display - Colors	15,6" TFT LED - 16M
Resolution	1366x768, HD
Brightness	400 Cd/m² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 quad core 800 MHz
Operating System	Linux RT
Flash	8 GB
RAM	2 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.2 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP69 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	450x295mm
Cutout AxB	411x256 mm (16.18x10")
Depth D+T	56+8 mm (2.20+0.33")
Weight	5.2 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL61010-1 / UL61010-2-201
RCM	Yes

1 USB ports 1 and 2
2 Ethernet port 2 (10/100 Mb)
3 Ethernet port 1 (10/100 Mb)
4 Serial port
5 Ethernet port 0 (10/100/1000 Mb)
6 Power supply
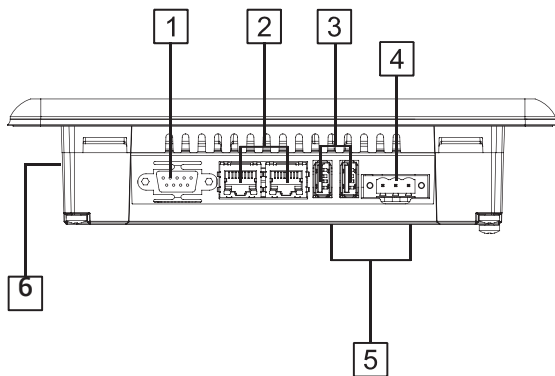7 2 Expansion slots for plugin modules
8 SD Card slot

Cut-out

Ordering Information

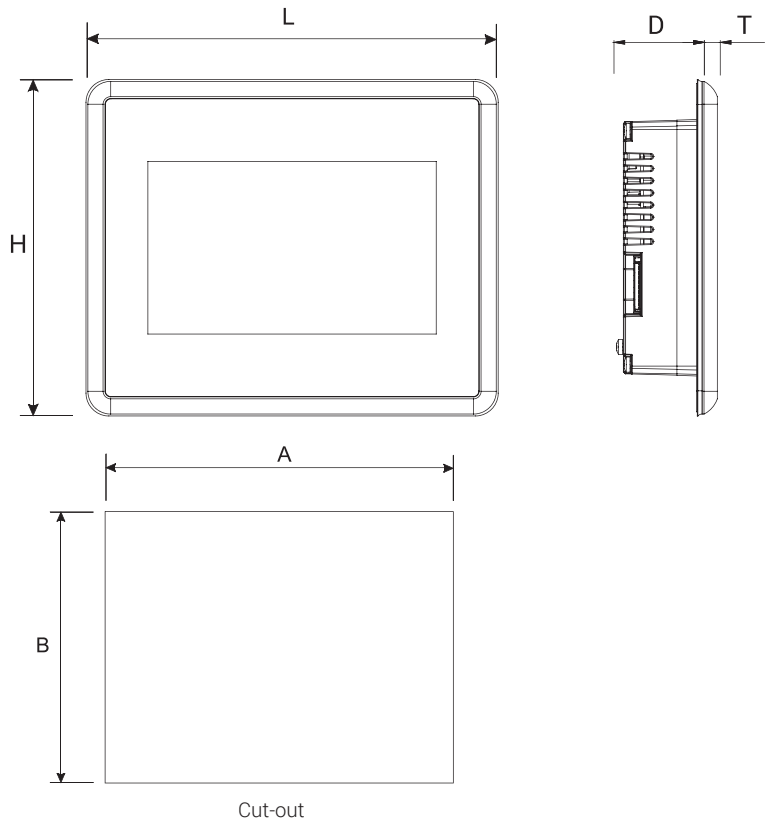| Model	Part Number	Description
eX715FB	+EX715U4F1	15" widescreen TFT color projected capacitive touchscreen. Stainless steel bezel. Ethernet and USB interfaces. JMobile runtime. Blue front panel

eTOP507MFB - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 LED - 64K
Resolution	800x480, WVGA
Brightness	400 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.9 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C
Storage Temp	-40 to +85 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP69 (front), IP20 (rear) Type: 4X
Dimensions and Weights	
Faceplate LxH	217x177 mm (8.54x6.96")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	45+10 mm (1.77+0.4")
Weight	2.5 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 2x USB Port
4 Power Supply
5 2x Expansion slots for Plugin modules
6 SD Card Slot for removable card

Cut-out

Ordering Information

Model	Part Number	Description
eTOP507MFB	+ETOP507MU1F1	7" widescreen TFT color projected capacitive touchscreen. Stainless steel bezel. White front panel.
eTOP507MFB	+ETOP507MU4F1	7" widescreen TFT color projected capacitive touchscreen. Stainless steel bezel. Blue front panel.

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Accessories

Model	Part Number	Description
PLCM01	+PLCM01U0P1	Plug-in module CAN
PLCM02	+PLCM02U001	Plug-in module KNX/EIB (TP interface)
PLCM03	+PLCM03U0P1	Plug-in module RS-232
PLCM04	+PLCM04U0P1	Plug-in module RS-422/485 with optical insulation
PLCM06	+PLCM06U0P1	Plug-in module Profibus DP slave 12 MB
PLCM07	+PLCM07U0P1	Plug-in Secure Cloud Connector
CODESYS V3 SoftPLC	+SWLC00R000000	CODESYS V3 activation license
PLCM01-CDS	+PLCM01U0P2	Plug-in module CAN + CODESYS V2
PLCM02-CDS	+PLCM02U002	Plug-in module KNX/EIB (TP interface) + CODESYS V2
PLCM05-CDS	+PLCM05U0P1	Plug-in module CODESYS V2
PLIO03	+PLIO03U0P1	I/O Module with 20 DI 24 VDC, 12 DO 24 VDC 0,5 A, 8 AI (4 diff or 8 single or 4 PT100 or 4 TC), 4 AO, 1 PT100 Cold Junct
PLIO04	+PLIO04U0P1	I/O Module with 10 DI 24 VDC, 10 DO SSR 1.4 A, 4 Programmable AI voltage/PT100/TC, 4 AI voltage, 1 PT100
PLIO06	+PLIO06U0P1	Compact I/O module. 8 DI, 6 DO, 1 Relay Output
PLIO07	+PLIO07U001	Compact I/O module. 2 Relay Outputs

Verticals: Harsh Environments

Harsh Environment Series

The Choice for Extreme Conditions

- Proven Long Term Reliability
- Brilliant Displays Readable in Full Sunlight
- PCAP Touchscreen
- All Metal Enclosure
- Coated Board Protection
- Extended operating temperature
- Module Design Plug Ins for Fieldbus + Networks
- Optional CODESYS integrated PLC
- DNV-GL, IECEx, ATEX
- cULus, cULus Haz. Loc.

Overview

The eTOP500 Glass with a **class-leading performance rating** it has become the choice for extreme conditions.

Now joined with the harsh environment version of the powerful **eX700 Glass Series**, the benefits of IIoT can reach even the most inhospitable or remote of locations.

Since 2011 EXOR Harsh Environment HMI's have been serving our customers in environments that are not only harsh for the working of the device but where its **reliable operation can be critical** for the safety of operators.

The eTOP500 Glass lived up to this challenge, with a class leading performance rate it has become the **choice for extreme conditions**.

Now joined with the harsh environment version of the powerful **eX700 Glass Series**, the benefits of IIoT can reach even the most inhospitable or remote of locations.
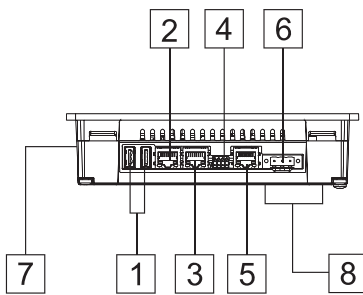
What sets the model apart is the combination of the rugged design with the use of JMobile software which renders the operation of the HMI extremely easy: an important point when the surroundings are difficult.

Connecting to a **vast array of networks and protocols** is achieved via the module design so again aiding the implementation of these HMI within existing architecture.
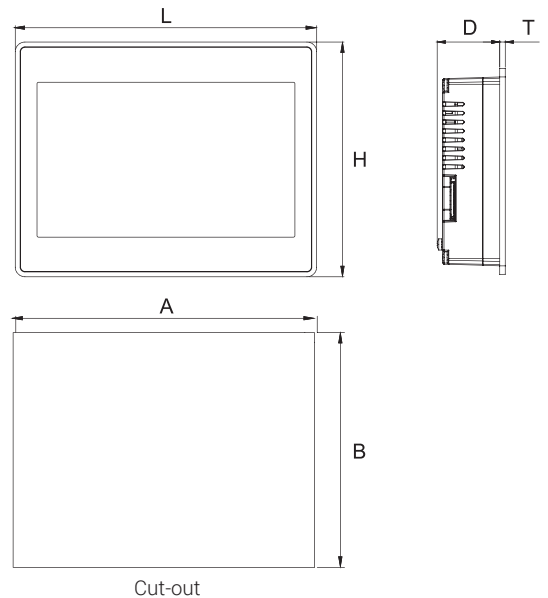
eX707G - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 LED - 16M
Resolution	800x480, WVGA
Brightness	600 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 dual core 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	47+8 mm (1.85+0.31")
Weight	1.5 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments, Emission EN 60945, Immunity EN 60945 for marine environments
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class I Div. 2
IECEx	Zone 2/22: Ex nA IIC T5 Gc, Ex tc IIIC T95°C Dc
ATEX	Zone 2/22: II 3 G Ex nA IIC T5 Gc II 3 D Ex tc IIIC T95°C Dc
DNV-GL	Yes
EU RO MR	Yes
RCM	Yes

1 USB ports 1 and 2
2 Ethernet port 2 (10/100 Mb)
3 Ethernet port 1 (10/100 Mb)
4 Serial port
5 Ethernet port 0 (10/100/1000 Mb)
6 Power supply
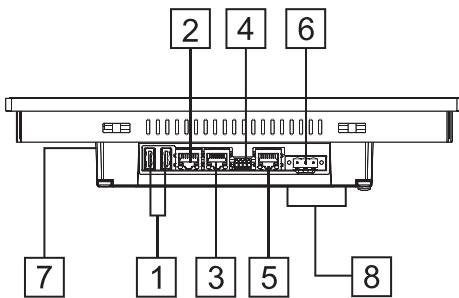7 SD Card slot
8 2 Expansion slots for plugin modules

Cut-out

Ordering Information

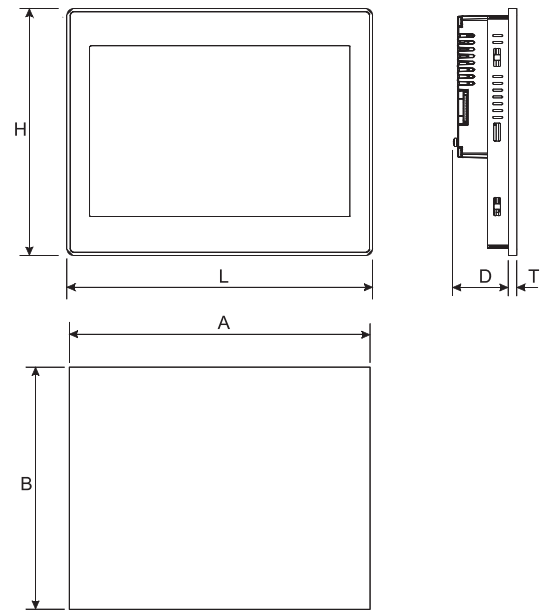| Model	Part Number	Description
eX707G	+EX707GU5P1	7" widescreen TFT color with multitouch projected capacitive touchscreen. 3 Ethernet ports, 1 serial port, 2 USB ports. JMobile runtime.

eX710G - Technical Data

System Resources	
Display - Colors	10.1" TFT 16:9 LED - 16M
Resolution	1280x800, WXGA
Brightness	800 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 dual core 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.0 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	282x197 mm (11.10x7.80")
Cutout AxB	271x186 mm (10.67x7.32")
Depth D+T	56+8 mm (2.20+0.33")
Weight	2.5 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments, Emission EN 60945, Immunity EN 60945 for marine environments
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class I Div. 2
IECEx	Zone 2/22: Ex nA IIC T5 Gc, Ex tc IIIC T95°C Dc
ATEX	Zone 2/22: II 3 G Ex nA IIC T5 Gc II 3 D Ex tc IIIC T95°C Dc
DNV-GL	Yes
RCM	Yes

1   USB ports 1 and 2
2   Ethernet port 2 (10/100 Mb)
3   Ethernet port 1 (10/100 Mb)
4   Serial port
5   Ethernet port 0 (10/100/1000 Mb)
6   Power supply
7   SD Card slot
8   2 Expansion slots for plugin modules

Cut-out
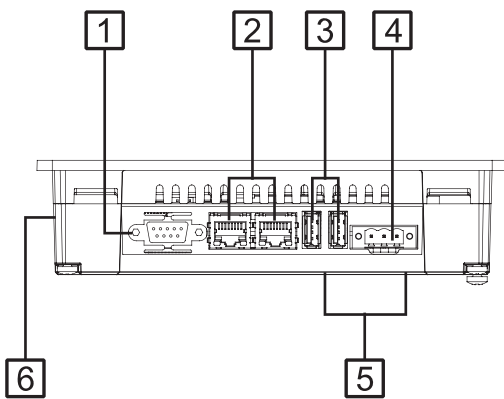
Ordering Information

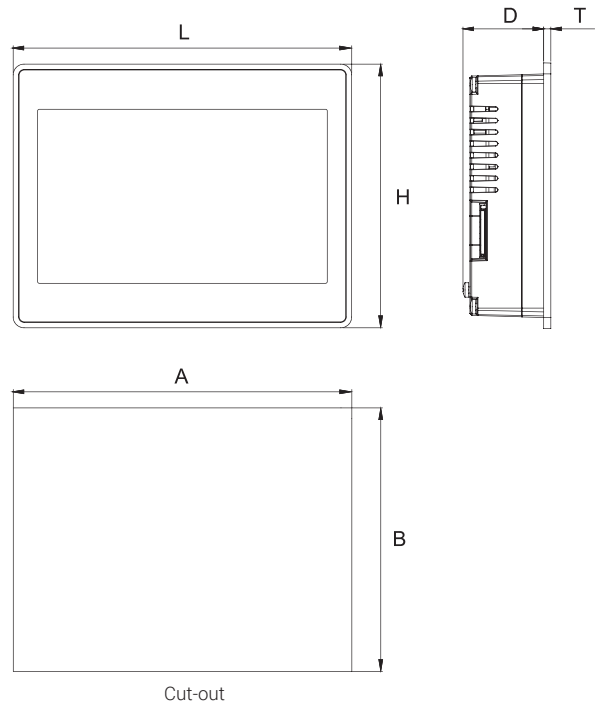| Model	Part Number	Description
eX710G	+EX710GU5P1	10.1" widescreen TFT color with multitouch projected capacitive touchscreen. 3 Ethernet ports, 1 serial port, 2 USB ports. JMobile runtime.

eTOP507G - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 LED - 64K
Resolution	800x480, WVGA
Brightness	400 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive
CPU	ARM Cortex-A8 - 600 MHz
Operating System	Microsoft Windows CE 6.0
Flash	128 MB
RAM	256 MB
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.8 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20 to +60 °C (vertical installation)
Storage Temp	-40 to +85 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP69K (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	47+8 mm (1.85+0.31")
Weight	Approx 1.0 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
IECEx	Zone 2/22: Ex nA IIC T4 Gc -20<Tamb<+60°C, Ex tc IIIC T105°C Dc
ATEX	Zone 2/22: II 3G Ex nA IIC T4 Gc -20<Tamb<+60°C II 3D Ex tc IIIC T105°C Dc
DNV-GL	Yes
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 2x USB Port
4 Power Supply
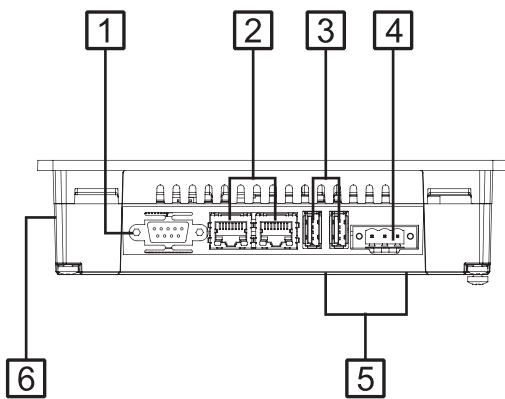5 2x Expansion slots for Plugin modules
6 SD Card Slot for removable card

Cut-out

Ordering Information

Model	Part Number	Description
eTOP507G	+ETOP507U5P1	7" widescreen TFT color projected capacitive touchscreen with Ethernet and USB interfaces. JMobile runtime.

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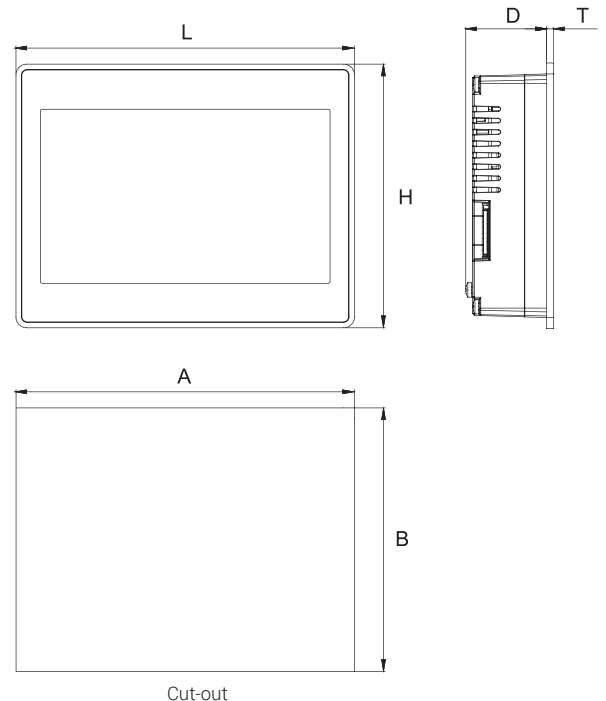
eTOP507MG - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 LED - 64K
Resolution	800x480, WVGA
Brightness	400 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.9 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20 to +60 °C (vertical installation)
Storage Temp	-40 to +85 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP69K (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	47+8 mm (1.85+0.31")
Weight	Approx 1.0 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
IECEx	Zone 2/22: Ex nA IIC T4 Gc -20<Tamb<+60°C, Ex tc IIIC T105°C Dc
ATEX	Zone 2/22: II 3G Ex nA IIC T4 Gc -20<Tamb<+60°C II 3D Ex tc IIIC T105°C Dc
DNV-GL	Yes
RCM	Yes

1. Serial Port
2. 2x Ethernet Port
3. 2x USB Port
4. Power Supply
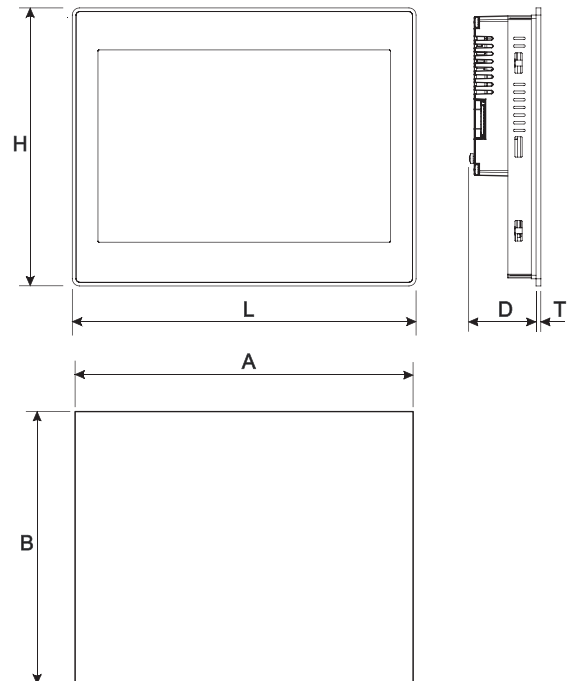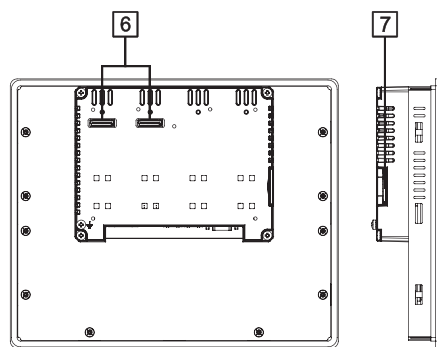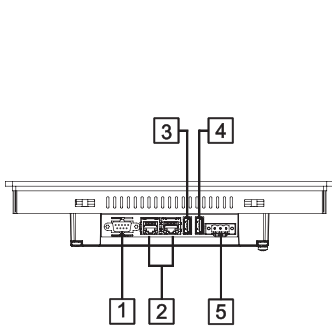5. 2x Expansion slots for Plugin modules
6. SD Card Slot for removable card

Cut-out

Ordering Information

Model	Part Number	Description
eTOP507MG	+ETOP507MU5P1	7" widescreen TFT color projected capacitive touchscreen with Ethernet and USB interfaces. JMobile runtime.

eTOP510G - Technical Data

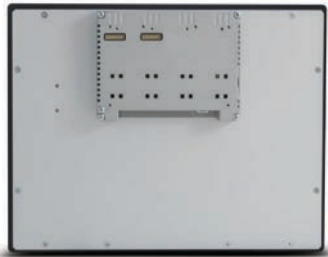| System Resources	
Display - Colors	10.1" TFT 16:9 LED - 64K
Resolution	1280x800, WXGA
Brightness	600 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.0 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20 to +60 °C (vertical installation)
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP69K (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	282x197 mm (11.10x7.80")
Cutout AxB	271x186 mm (10.67x7.32")
Depth D+T	52+8 mm (2.20+0.33")
Weight	Approx 2.7 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
IECEx	Zone 2/22: Ex nA IIC T4 Gc -20<Tamb<+60°C, Ex tc IIIC T105°C Dc
ATEX	Zone 2/22: II 3G Ex nA IIC T4 Gc -20<Tamb<+60°C II 3D Ex tc IIIC T105°C Dc
DNV-GL	Yes
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 USB port (version 2.0 - 1.1)
4 USB port (version 2.0 High speed only)
5 Power Supply
6 2x Expansion slot for Plugin module
7 SD Card Slot

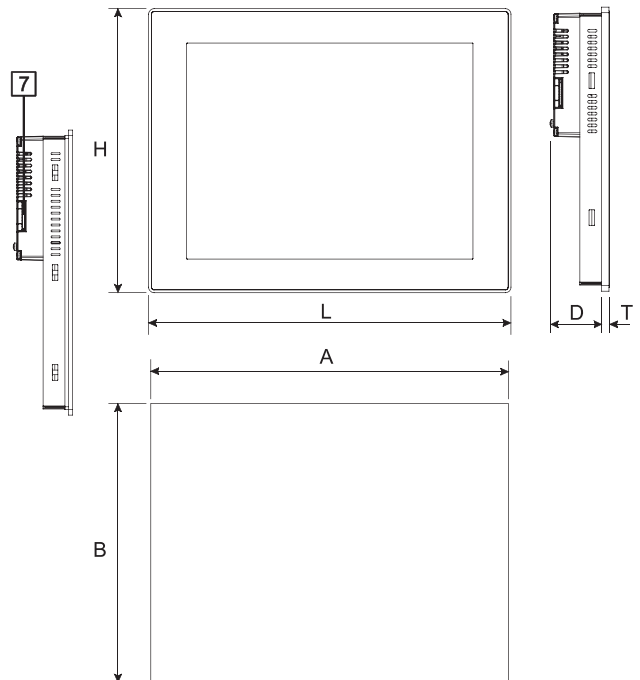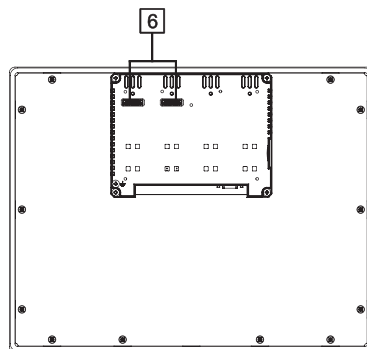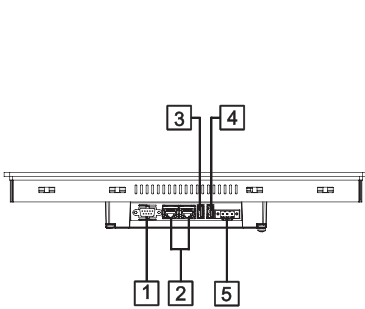Cut-out

Ordering Information

Model	Part Number	Description
eTOP510G	+ETOP510U5P1	10.1" widescreen TFT color with projected capacitive touchscreen. Ethernet and USB interfaces. JMobile runtime.

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eTOP515G - Technical Data

System Resources	
Display - Colors	15" TFT LED - 64K
Resolution	1024x768, XGA
Brightness	1500 Cd/m^2 typ
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.4 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20 to +60 °C (vertical installation)
Storage Temp	-40 to +85 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP69K (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	392x307 mm (15.43x12.08")
Cutout AxB	381x296 mm (15x11.65")
Depth D+T	56+8.5 mm (2.20+0.33")
Weight	Approx 4.0 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
IECEx	Zone 2/22: Ex nA IIC T4 Gc -20<Tamb<+60°C, Ex tc IIIC T105°C Dc
ATEX	Zone 2/22: II 3G Ex nA IIC T4 Gc -20<Tamb<+60°C II 3D Ex tc IIIC T105°C Dc
DNV-GL	Yes
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 2x USB Port
4 Power Supply
5 2x Expansion slots for Plugin modules
6 2x Plug-in slots
7 SD Card Slot for removable card

Cut-out

Ordering Information

Model	Part Number	Description
eTOP515G	+ETOP515U5P1	15" widescreen TFT color projected capacitive touchscreen with Ethernet and USB interfaces. JMobile runtime.

Accessories

Model	Part Number	Description
PLCM01	+PLCM01U0P1	Plug-in module CAN
PLCM02	+PLCM02U001	Plug-in module KNX/EIB (TP interface)
PLCM03	+PLCM03U0P1	Plug-in module RS-232
PLCM04	+PLCM04U0P1	Plug-in module RS-422/485 with optical insulation
PLCM06	+PLCM06U0P1	Plug-in module Profibus DP slave 12 MB
PLCM07	+PLCM07U0P1	Plug-in Secure Cloud Connector
CODESYS V3 SoftPLC	+SWLC00R000000	CODESYS V3 activation license
PLCM01-CDS	+PLCM01U0P2	Plug-in module CAN + CODESYS V2
PLCM02-CDS	+PLCM02U002	Plug-in module KNX/EIB (TP interface) + CODESYS V2
PLCM05-CDS	+PLCM05U0P1	Plug-in module CODESYS V2
PLIO03	+PLIO03U0P1	I/O Module with 20 DI 24 VDC, 12 DO 24 VDC 0,5 A, 8 AI (4 diff or 8 single or 4 PT100 or 4 TC), 4 AO, 1 PT100 Cold Junct
PLIO04	+PLIO04U0P1	I/O Module with 10 DI 24 VDC, 10 DO SSR 1.4 A, 4 Programmable AI voltage/PT100/TC, 4 AI voltage, 1 PT100
PLIO06	+PLIO06U0P1	Compact I/O module. 8 DI, 6 DO, 1 Relay Output
PLIO07	+PLIO07U001	Compact I/O module. 2 Relay Outputs

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Entry Level

EXOR

Entry Level - eSMART Series

Stripped Down Essential Power

When EXOR first introduced to the market the eSMART series in 2015, it was always our intention to **rethink the budget HMI sector**.

With the progress of material engineering and design, we saw no reason why the budget HMI sector had to be offered with such poor levels of technology and particularly aesthetics.
Our belief and the continued engineering investment has now been recognized by the most severe certification organizations in the world.

There is now **no low cost HMI series in the world that can offer the range of features and certificates**, opening dramatically the range of possible applications and industry verticals.

- JMobile programmable
- Browser Programming Widget
- Chromium Web Browser
- OS Linux RT
- HW and FW Optimised for Extremely Fast Operation
- Supports HTML5 and JS
- Resistive Touchscreen

- Powerful CPU
- High Memory Resources
- Extended voltage range 10-32 VDC
- OPC UA Server and Client
- Vast Library of Protocols
- Extremely Robust Design

Overview

The eSMART series of products combine the power of JMobile – the software inside X Platform with an outstandingly robust design.
With very specific applications in mind we have stripped down the eSMART to only the essential components and have created a truly class leading product.

Stripped down does not mean that the product is not robust. In fact it maintains a **IP66 protection rating** for the front of the unit and is certified to a level not seen in the low cost sector worldwide, allowing use in the most hazardous of environments.
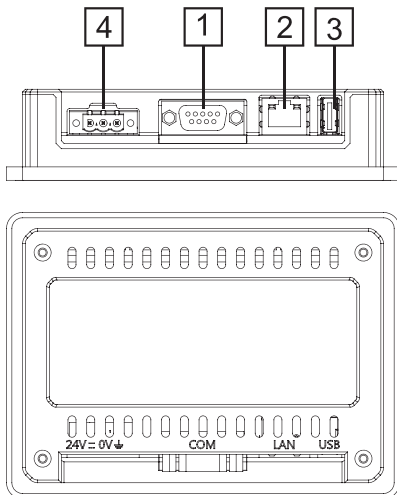
Stripped down does not mean a cheap looking ugly product. The eSMART series is without doubt the most elegant in its class. No other fully plastic housed product can match the eSMART quality.

Stripped down does not mean reduction in high level functionality. Although the display is not at the incredible real life level of the eX700 series, the unique connectivity ability of JMobile – the software inside X Platform, allows the eSMART to communicate with a vast library of critical protocols as well as OPC UA standard and pub/sub server and client.
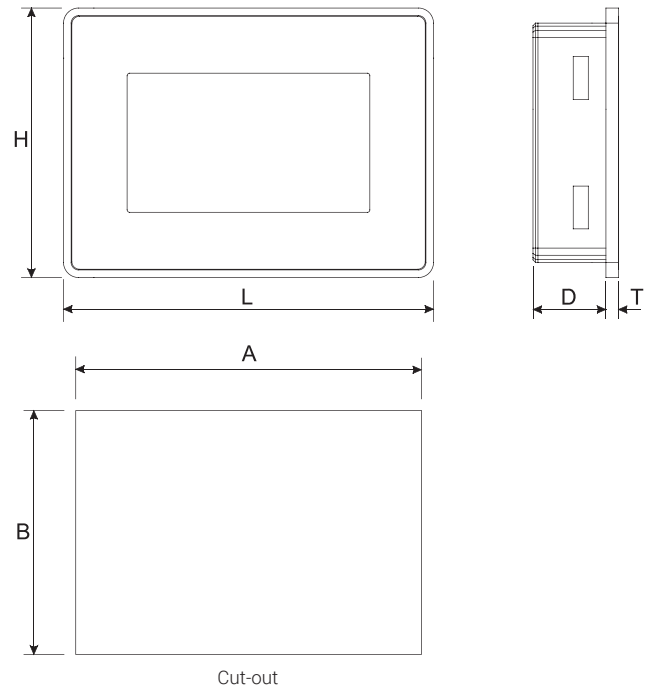
eSMART04 - Technical Data

System Resources	
Display - Colors	4.3" TFT 16:9 - 64K
Resolution	480x272
Brightness	200 Cd/m² typ.
Dimming	Yes
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 300 MHz
Operating System	Linux 3.12
Flash	2 GB
RAM	256 MB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	1 (port 0 - 10/100)
USB port	1 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable)
SD card	No
Expansion	No
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.25 A max. at 24 Vdc
Input Protection	Automatic
Battery	Yes (Supercapacitor)
Environment Conditions	
Operating Temp	0 to 50 °C (vertical installation)
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 2, 4X
Dimensions and Weights	
Faceplate LxH	147x107 mm (5.78x4.21")
Cutout AxB	136x96 mm (5.35x3.78")
Depth D+T	29+5 mm (1.14+0.19")
Weight	Approx 0.4 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments
UL	cULus: UL508
UL	cULus: Class 1 Div 2
ATEX	Zone 2: II 3 G Ex ic ec IIC T6 Gc
DNV-GL	Yes
EU RO MR	Yes
RCM	Yes

1 Serial Port
2 Ethernet Port
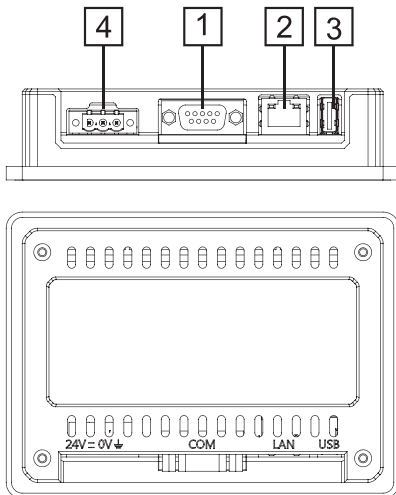3 USB port (vers. 2.0 - 1.1)
4 Power Supply

Cut-out

Ordering Information

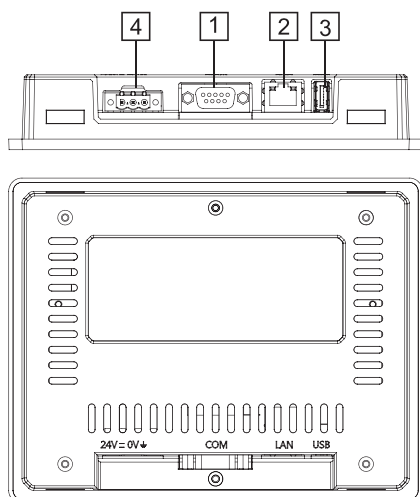| Model	Part Number	Description
eSMART04	+ESMA04U301	4" widescreen TFT color touchscreen with Ethernet and USB interfaces. JMobile runtime

eSMART04M - Technical Data

System Resources	
Display - Colors	4.3" TFT 16:9 - 64K
Resolution	480x272
Brightness	200 Cd/m² typ.
Dimming	Yes
Touchscreen	Resistive
CPU	ARM Cortex A8 1 GHz
Operating System	Linux 3.12
Flash	4 GB
RAM	512 MB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	1 (port 0 - 10/100)
USB port	1 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable)
SD card	No
Expansion	No
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.25 A max. at 24 Vdc
Input Protection	Automatic
Battery	Yes (Supercapacitor)
Environment Conditions	
Operating Temp	0 to 50 °C (vertical installation)
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 2, 4X
Dimensions and Weights	
Faceplate LxH	147x107 mm (5.78x4.21")
Cutout AxB	136x96 mm (5.35x3.78")
Depth D+T	29+5 mm (1.14+0.19")
Weight	Approx 0.4 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments
UL	cULus: UL508
UL	cULus: Class 1 Div 2
ATEX	Zone 2: II 3 G Ex ic ec IIC T6 Gc
DNV-GL	Yes
EU RO MR	Yes
RCM	Yes

1 Serial Port
2 Ethernet Port
3 USB port (vers. 2.0 - 1.1)
4 Power Supply

Cut-out

Ordering Information

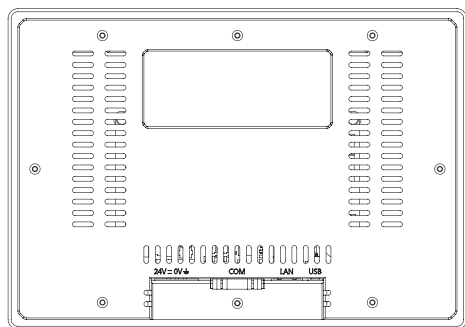| Model	Part Number	Description
eSMART04M	+ESMA04MU301	4" widescreen TFT color touchscreen with Ethernet and USB interfaces. JMobile runtime

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eSMART07M - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 - 64K
Resolution	800x480, WVGA
Brightness	200 Cd/m^2 typ.
Dimming	Yes
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Linux 3.12
Flash	4 GB
RAM	512 MB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	1 (port 0 - 10/100)
USB port	1 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable)
SD card	No
Expansion	No
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.3 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Yes (Supercapacitor)
Environment Conditions	
Operating Temp	0 to 50 °C (vertical installation)
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 2, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	29+5 mm (1.14+0.19")
Weight	Approx 0.6 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments
UL	cULus: UL508
UL	cULus: Class 1 Div 2
ATEX	Zone 2: II 3 G Ex ic ec IIC T6 Gc
DNV-GL	Yes
EU RO MR	Yes
RCM	Yes

1   Serial Port
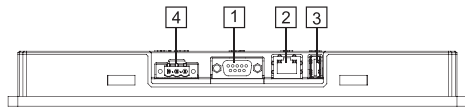2   Ethernet Port
3   USB port (vers. 2.0 - 1.1)
4   Power Supply

Ordering Information

Model	Part Number	Description
eSMART07M	+ESMA07MU301	7" widescreen TFT color touchscreen with Ethernet and USB interfaces. JMobile runtime

eSMART10 - Technical Data

System Resources	
Display - Colors	10.1" TFT 16:9 - 64K
Resolution	1024x600, WVGA
Brightness	200 Cd/m² typ.
Dimming	Yes
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Linux 3.12
Flash	4 GB
RAM	512 MB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	1 (port 0 - 10/100)
USB port	1 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable)
SD card	No
Expansion	No
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.38 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Yes (Supercapacitor)
Environment Conditions	
Operating Temp	0 to 50 °C (vertical installation)
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 2, 4X
Dimensions and Weights	
Faceplate LxH	282x197 mm (11.10x7.80")
Cutout AxB	271x186 mm (10.66x7.32")
Depth D+T	29+6 mm (1.14+0.23")
Weight	Approx 1.0 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments
UL	cULus: UL508
UL	cULus: Class 1 Div 2
ATEX	Zone 2: II 3 G Ex ic ec IIC T6 Gc
DNV-GL	Yes
EU RO MR	Yes
RCM	Yes

1 Serial Port
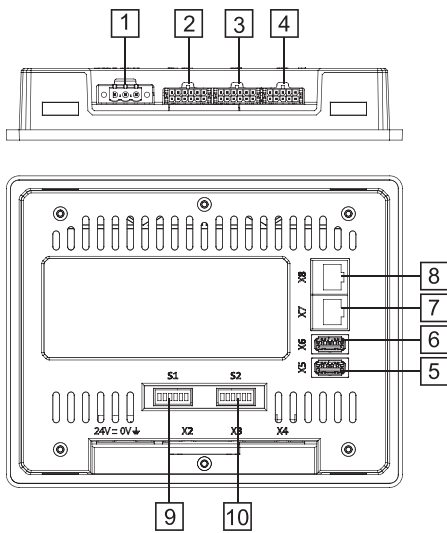2 Ethernet Port
3 USB port (version 2.0 - 1.1)
4 Power Supply

Cut-out
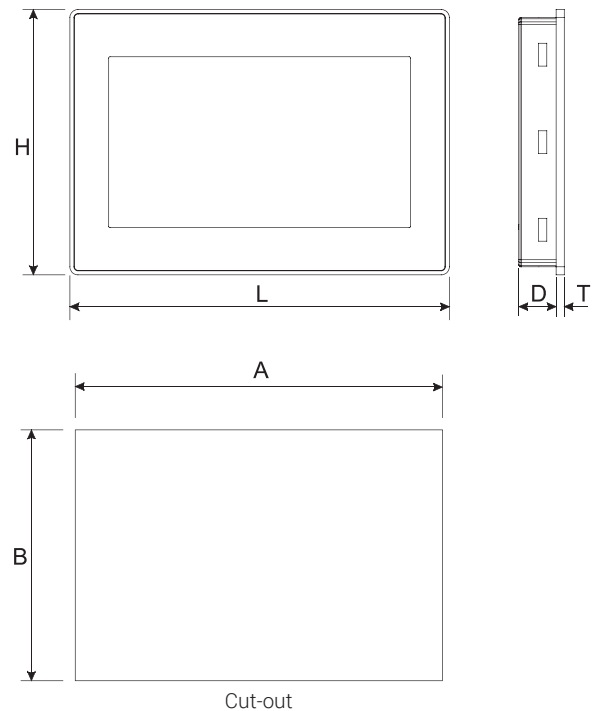
Ordering Information

Model	Part Number	Description
eSMART10	+ESMA10U301	10" widescreen TFT color touchscreen with Ethernet and USB interfaces. JMobile runtime.

eSMART107 - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 - 64K
Resolution	800x480, WVGA
Brightness	200 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A9 dual core - 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, No
Interface	
Ethernet port	2 (port 0 - 10/100/1000, port 1 - 10/100)
USB port	2 (Host V2.0, max. 100 mA)
Serial port	2 (RS-232), 2 (RS-422/RS-485 isolated), 2 (CAN 2.0b isolated)
SD card	No
Expansion	No
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.3 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Yes (Supercapacitor)
Environment Conditions	
Operating Temp	0 to +50°C (vertical installation)
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 2, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	29+5 mm (1.14+0.19")
Weight	0.875 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments Emission EN 61000-6-3, Immunity EN 61000-6-1 for installation in residential environments
UL	cULus: UL508
DNV-GL	Yes
EU RO MR	Yes
RCM	Yes

1 Power Supply
2 Serial port RS-485 + CAN
3 Serial port RS-485 + CAN
4 Serial port 2x RS-232
5 USB port
6 USB port
7 Ethernet port 0 (10/100/1000 Mb)
8 Ethernet port 1 (10/100 Mb)
9 DIP switch port configuration
10 DIP switch port configuration

Cut-out

Ordering Information

Model	Part Number	Description
eSMART107	+ESMA107U301	7" TFT color with touchscreen. 2 Ethernet ports, 2 CAN ports, 4 serial ports, 2 USB ports. JMobile runtime.

IoT Controller

IoT Controller - eX700 Series

Revolutionary IIoT Controller

Exor has updated its flagship product the eX700 Series and gone much further, creating the ultimate all-in-one solution ready for scalable applications across many industries.
Super High Performance, High Resolution Glass Cap Touch, Fully Connectable upstream & downstream, Powerful Integrated PLC w/ all the major protocols, Integrated VPN with Service Cloud, all with up to a 5 year warranty available.

- Created Within the X Platform
- Industry 4.0 Product Concept
- HW and FW Optimised for Extremely Fast Operation
- System and Project Rapid Boot-Up
- OS Linux RT
- JMobile – the software that powers the X Platform
- CODESYS V3 with Ethernet I/O Stacks
- Multitouch and Gesturing
- Brilliant 2,100,000 pixel Display

- Wide Angle Visibility
- Beautiful 16,000,000 Colors
- Resistant to Scratches, UV and Chemicals
- Total Glass Design
- Network Separation possibile via Up to 3 Ethernet
- Networks with different IP addresses
- Plug in Modules for System Expansion
- IECEx, ATEX, DNV-GL, EU RO MR, Lloyd's Register, cULus, cULus Haz. Loc., RCM

Overview

A beautiful product, created within the X Platform and hence with an unsurpassed ability to offer access and scalability into Industry 4.0. The tremendous technical flexibility is backed by a company with 45 years in the industry and still with a market price at previous models.

The eX700 Series represents a ground breaking product to come to market:
The Revolutionary IIoT Controller.

The product's concept permits a prudent investment into the implementation of IIoT and hence Industry 4.0 compatibility.
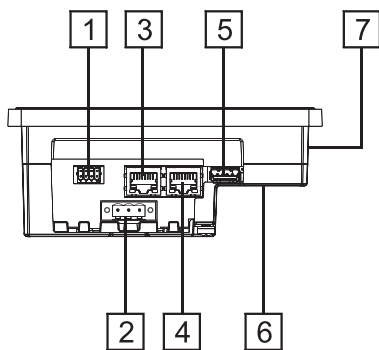As such it provides a true all-in-one solution covering many functions such as:

• As a powerful **Browser** with industry standard Web engine powering state of the art Chromium browser

• As a powerful **HMI** using JMobile inside with multi-touch operation in a brilliant high resolution display

• As a **Gateway** with up to 3 Ethernet networks, OPC UA pub/sub* Server and Client, future TSN connectivity* and multiple protocols

• As a **PLC** with the CODESYS V3 can function as Master through major protocols
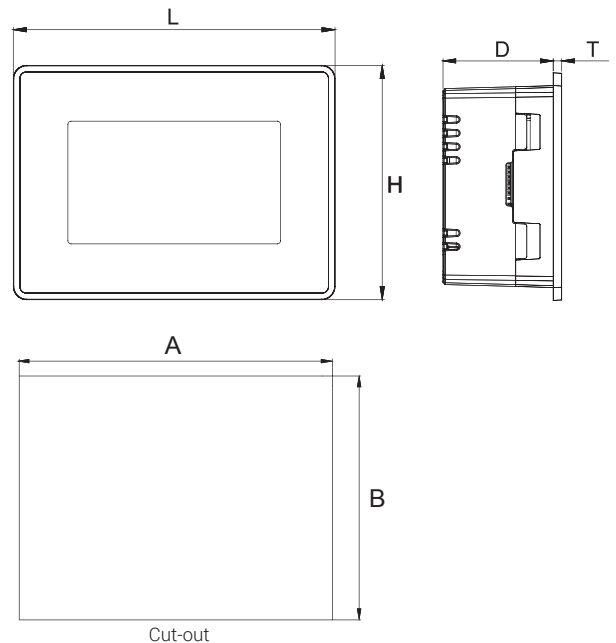
eX705 - Technical Data

System Resources	
Display - Colors	5" TFT 16:9 LED - 64K
Resolution	800x480, WVGA
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive, Multitouch
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Linux RT
Flash	4 GB
RAM	512 MB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100)
USB port	1 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 2 serial ports using plug-in modules.
SD card	Yes
Expansion	1 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.6 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	147x107 mm (5.78x4.21")
Cutout AxB	136x96 mm (5.35x3.78")
Depth D+T	52+8 mm (2.40+0.31")
Weight	1.3 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2/22: Ex nA IIC T5 Gc, Ex tc IIIC T95°C Dc
ATEX	Zone 2/22: II 3 G Ex nA IIC T5 Gc, II 3 D Ex tc IIIC T95°C Dc
DNV-GL	Yes
LR	Yes
EU RO MR	Yes
RCM	Yes

1 Serial port
2 Power supply
3 Ethernet port 1 (10/100 Mb)
4 Ethernet port 0 (10/100 Mb)
5 USB port 1
6 Expansion slots for plug-in modules
7 SD Card slot

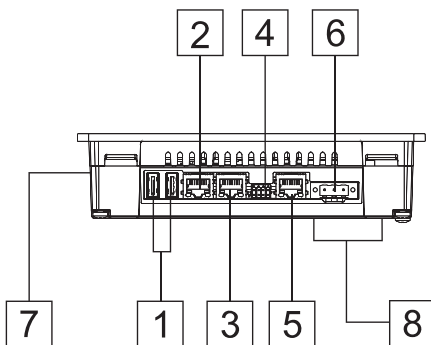Cut-out

Ordering Information

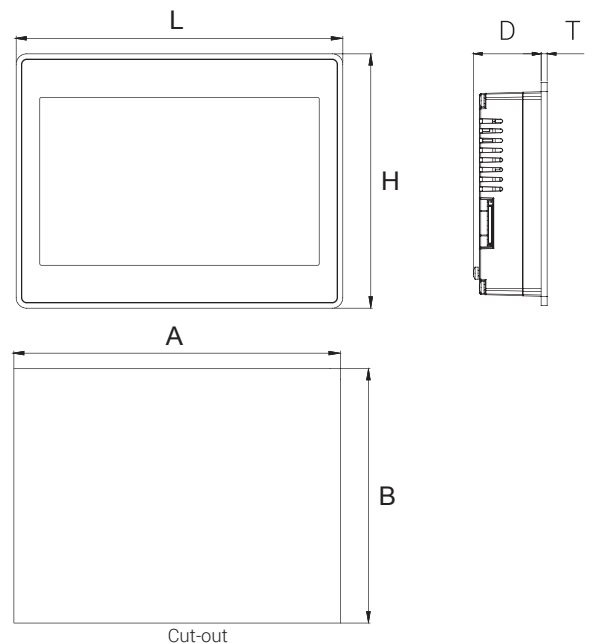| Model	Part Number	Description
eX705	+EX705U5P1	5" widescreen TFT color with multitouch projected capacitive touchscreen. 2 Ethernet ports, 1 serial port, 1 USB port. JMobile runtime.

eX707 - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 LED - 16M
Resolution	800x480, WVGA
Brightness	500 Cd/m^2 typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 dual core 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	47+8 mm (1.85+0.31")
Weight	1.5 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2/22: Ex nA IIC T5 Gc, Ex tc IIIC T95°C Dc
ATEX	Zone 2/22: II 3 G Ex nA IIC T5 Gc, II 3 D Ex tc IIIC T95°C Dc
DNV-GL	Yes
LR	Yes
EU RO MR	Yes
RCM	Yes

1 USB ports 1 and 2
2 Ethernet port 2 (10/100 Mb)
3 Ethernet port 1 (10/100 Mb)
4 Serial port
5 Ethernet port 0 (10/100/1000 Mb)
6 Power supply
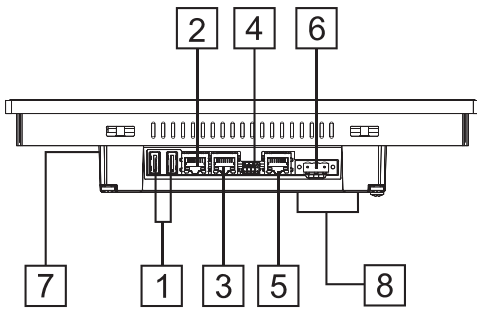7 SD Card slot
8 2 Expansion slots for plugin modules

Cut-out

Ordering Information

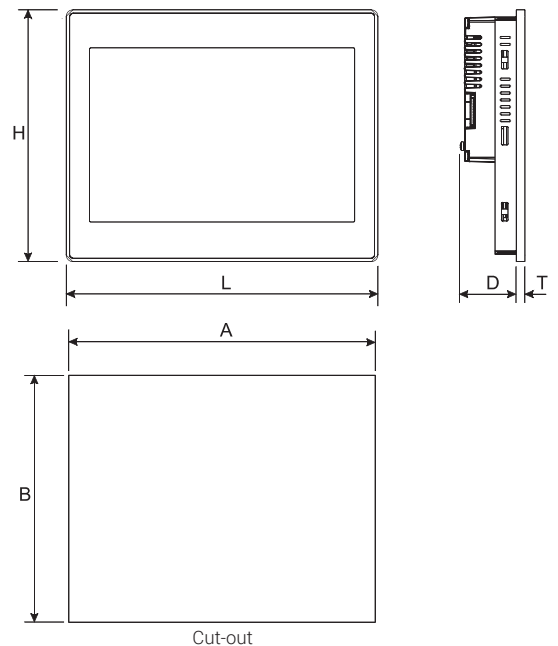| Model	Part Number	Description
eX707	+EX707U5P1	7" widescreen TFT color with multitouch projected capacitive touchscreen. 3 Ethernet ports, 1 serial port, 2 USB ports. JMobile runtime.

eX710 - Technical Data

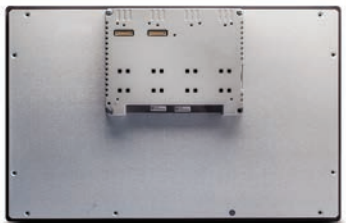| System Resources	
Display - Colors	10.1" TFT 16:9 LED - 16M
Resolution	1280x800, WXGA
Brightness	500 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 dual core 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.0 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	282x197 mm (11.10x7.80")
Cutout AxB	271x186 mm (10.67x7.32")
Depth D+T	56+8 mm (2.20+0.33")
Weight	2.5 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2/22: Ex nA IIC T5 Gc, Ex tc IIIC T95°C Dc
ATEX	Zone 2/22: II 3 G Ex nA IIC T5 Gc, II 3 D Ex tc IIIC T95°C Dc
DNV-GL	Yes
LR	Yes
EU RO MR	Yes
RCM	Yes

1. USB ports 1 and 2
2. Ethernet port 2 (10/100 Mb)
3. Ethernet port 1 (10/100 Mb)
4. Serial port
5. Ethernet port 0 (10/100/1000 Mb)
6. Power supply
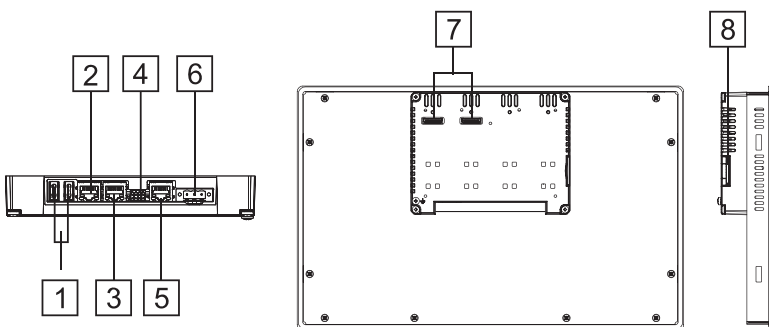7. SD Card slot
8. 2 Expansion slots for plugin modules

Cut-out

Ordering Information

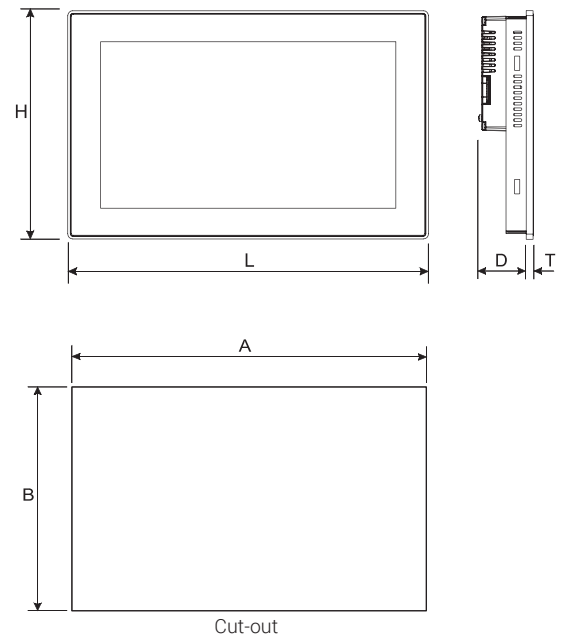| Model	Part Number	Description
eX710	+EX710U5P1	10.1" widescreen TFT color with multitouch projected capacitive touchscreen. 3 Ethernet ports, 1 serial port, 2 USB ports. JMobile runtime.

exorint.com

eX715 - Technical Data

System Resources	
Display - Colors	15,6" TFT LED - 16M
Resolution	1366x768, HD
Brightness	400 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 quad core 800 MHz
Operating System	Linux RT
Flash	8 GB
RAM	2 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.2 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	422x267 mm (16.6x10.5")
Cutout AxB	411x256 mm (16.18x10")
Depth D+T	56+8 mm (2.20+0.33")
Weight	4.1 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2/22: Ex nA IIC T5 Gc, Ex tc IIIC T95°C Dc
ATEX	Zone 2/22: II 3 G Ex nA IIC T5 Gc, II 3 D Ex tc IIIC T95°C Dc
DNV-GL	Yes
LR	Yes
EU RO MR	Yes
RCM	Yes

1 USB ports 1 and 2
2 Ethernet port 2 (10/100 Mb)
3 Ethernet port 1 (10/100 Mb)
4 Serial port
5 Ethernet port 0 (10/100/1000 Mb)
6 Power supply
7 2 Expansion slots for plugin modules
8 SD Card slot

Cut-out

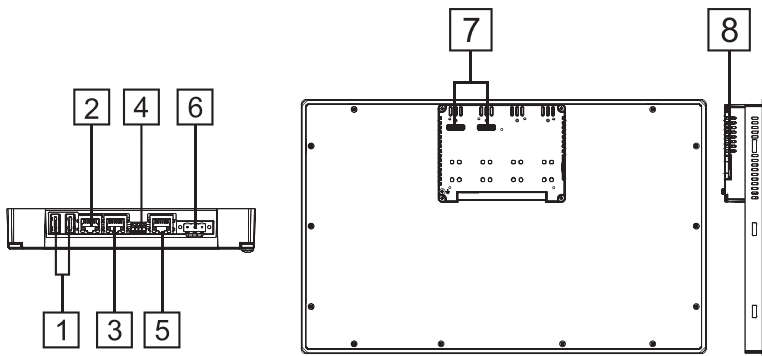# Ordering Information

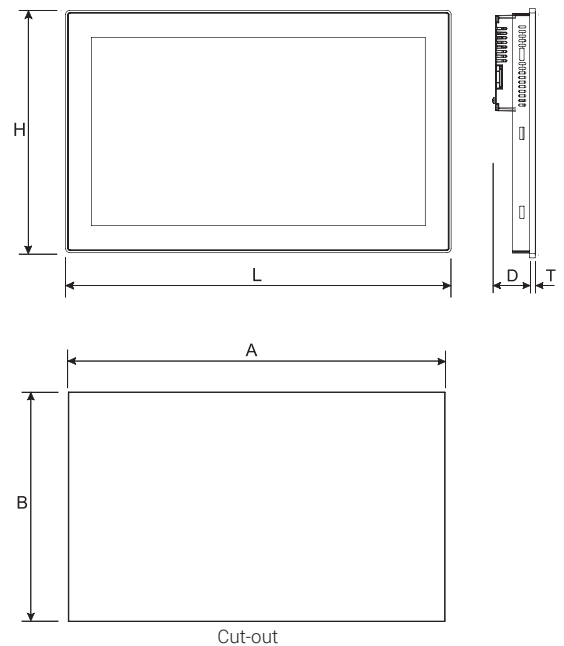| Model	Part Number	Description
eX715	+EX715U5P1	15.6" widescreen TFT color with multitouch projected capacitive touchscreen. 3 Ethernet ports, 1 serial port, 2 USB ports. JMobile runtime.

eX721 - Technical Data

System Resources	
Display - Colors	21,5" TFT LED - 16M
Resolution	1920x1080, full HD
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	True Glass Projected Capacitive, Multitouch
CPU	ARM Cortex-A9 quad core 800 MHz
Operating System	Linux RT
Flash	8 GB
RAM	2 GB
Real Time Clock, RTC Back-up, Buzzer	Yes
Interface	
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.7 A at 24 Vdc (max.)
Input Protection	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temp	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	552x347 mm (21,7x13,66")
Cutout AxB	541x336 mm
Depth D+T	56+8.5 mm
Weight	6.1 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
IECEx	Zone 2/22: Ex nA IIC T5 Gc, Ex tc IIIC T95°C Dc
ATEX	Zone 2/22: II 3 G Ex nA IIC T5 Gc, II 3 D Ex tc IIIC T95°C Dc
DNV-GL	Yes
LR	Yes
EU RO MR	Yes
RCM	Yes

1 USB ports 1 and 2
2 Ethernet port 2 (10/100 Mb)
3 Ethernet port 1 (10/100 Mb)
4 Serial port
5 Ethernet port 0 (10/100/1000 Mb)
6 Power supply
7 2 Expansion slots for plugin modules
8 SD Card slot

Cut-out

Ordering Information

Model	Part Number	Description
eX721	+EX721U5P1	21.5" widescreen TFT color with multitouch projected capacitive touchscreen. 3 Ethernet ports, 1 serial port, 2 USB ports. JMobile runtime.

Accessories

Model	Part Number	Description
PLCM01	+PLCM01U0P1	Plug-in module CAN
PLCM02	+PLCM02U001	Plug-in module KNX/EIB (TP interface)
PLCM03	+PLCM03U0P1	Plug-in module RS-232
PLCM04	+PLCM04U0P1	Plug-in module RS-422/485 with optical insulation
PLCM05	+PLCM05U0P2	Plug-in extender for use with PLIO03/PLIO04 (only for eX705)
PLCM06	+PLCM06U0P1	Plug-in module Profibus DP slave 12 MB
PLCM09	+PLCM09U0P1	Plug-in Wireless Modem
CODESYS V3 SoftPLC	+SWLC00R000000	CODESYS V3 activation license
PLIO03	+PLIO03U0P1	I/O Module with 20 DI 24VDC, 12 DO 24VDC 0,5 A, 8 AI (4 diff or 8 single or 4 PT100 or 4 TC), 4 AO, 1 PT100 Cold Junct
PLIO04	+PLIO04U0P1	I/O Module with 10 DI 24VDC, 10 DO SSR 1.4 A, 4 Programmable AI voltage/PT100/TC, 4 AI voltage, 1 PT100
PLIO06	+PLIO06U0P1	Compact I/O module. 8 DI, 6 DO, 1 Relay Output
PLIO07	+PLIO07U001	Compact I/O module. 2 Relay Outputs

Classic HMI

Classic HMI - eTOP500 Series

Solid as a rock

- 5 Year Warranty
- Innovative mechanical design and all-metal enclosure
- Available in different sizes from 4.3" to 15"
- High-performance touchscreen HMI's
- Brilliant displays with LED technology all in full color
- Gateway function, remote installation of application and remote assistance
- Ethernet, USB, serial ports and MPI integrated
- Optional plug-in modules for fieldbus systems and networks
- Support SD Card
- Coating on all Electronic Boards
- Optional IEC 61131-3 integrated PLC (CODESYS V2 or V3)
- Front available in three colors (White/Black/Silver)
- Special versions for special applications

Overview

The eTOP Series 500 combine state-of-the-art features and **top performance with an outstanding design**.

The eTOP Series 500 come with a choice of certifications and approvals that make them the **solution of choice for all requirements**.

eTOP504 - Technical Data

System Resources	
Display - Colors	4.3" TFT 16:9 LED - 64K
Resolution	480x272, WQVGA
Brightness	150 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 600 MHz
Operating System	Microsoft Windows CE 6.0
Flash	128 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	1 (port 1 - Host V2.0)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	1 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.55 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	147x107 mm (5.78x4.21")
Cutout AxB	136x96 mm (5.35x3.78")
Depth D+T	56+4 mm (2.40+0.16")
Weight	Approx 1.0 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1 Power Supply
2 Serial Port
3 2 Ethernet Ports
4 USB Port
5 Expansion slot for Plugin module
6 SD Card Slot

Cut-out
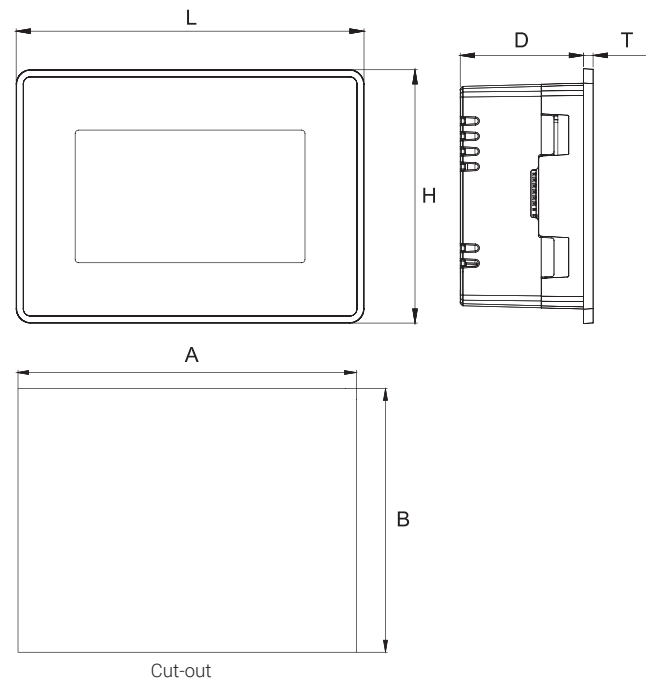
Ordering Information

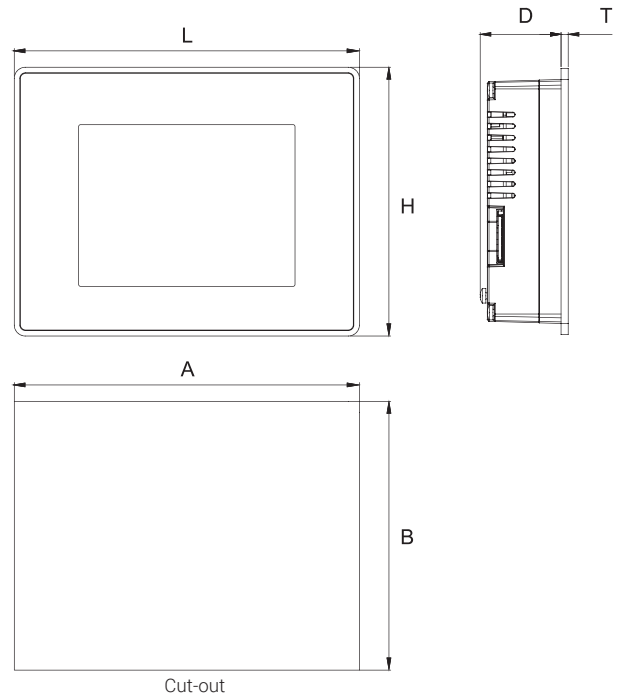| Model	Part Number	Description
eTOP504-White	+ETOP504U1P1	4.3" TFT color touchscreen panel with Ethernet interface, White front panel. JMobile runtime.
eTOP504-Silver	+ETOP504U2P1	4.3" TFT color touchscreen panel with Ethernet interface. Silver front panel. JMobile runtime.
eTOP504-Black	+ETOP504U3P1	4.3" TFT color touchscreen panel with Ethernet interface. Black front panel. JMobile runtime.
PROTFOIL-04-GL	R-PROT11	Disposable protection foil for 3.5"/3.8"/4.3" eTOP touch panels (10 pieces)
PROTFOIL-04-UV	R-PROT17	Disposable protection foil for 3.5"/3.8"/4.3" eTOP touch panels (10 pieces). UV resistant

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eTOP506 - Technical Data

System Resources	
Display - Colors	5.7" TFT LED - 64K
Resolution	320x240, QVGA
Brightness	200 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 600 MHz
Operating System	Microsoft Windows CE 6.0
Flash	128 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.65 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	47+4 mm (1.85+0.16")
Weight	Approx 1.0 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 USB port (version 2.0 - 1.1)
4 USB port (version 2.0 High speed only)
5 Power Supply
6 SD Card Slot
7 2x Expansion slot for Plugin module

Ordering Information

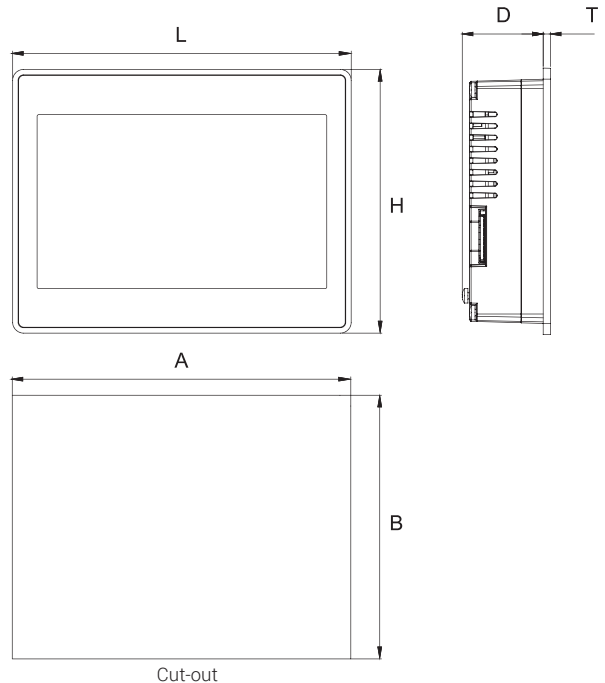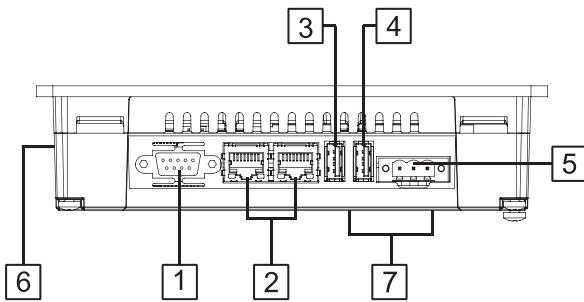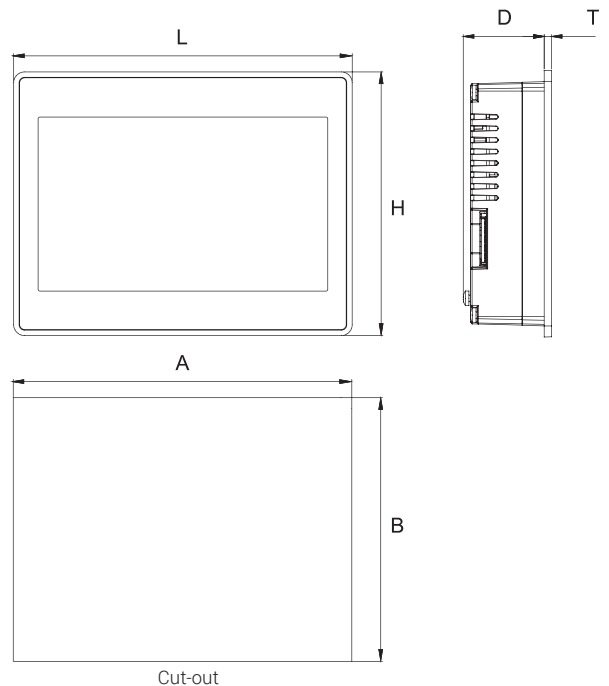| Model	Part Number	Description
eTOP506-White	+ETOP506U1P1	5.7" TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile runtime.
eTOP506-Silver	+ETOP506U2P1	5.7" TFT color touchscreen with Ethernet and USB interfaces. Silver front panel. JMobile runtime.
eTOP506-Black	+ETOP506U3P1	5.7" TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile runtime.
PROTFOIL-07-GL	R-PROT12	Disposable protection foil for 5.7" and 7" eTOP touch panels (10 pieces).
PROTFOIL-07-UV	R-PROT18	Disposable protection foil for 5.7" and 7" eTOP touch panels (10 pieces). UV resistant.

eTOP507 - Technical Data

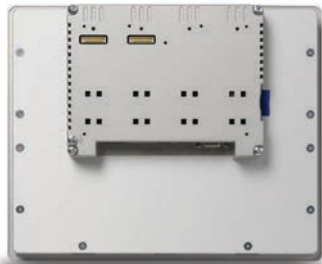| System Resources	
Display - Colors	7" TFT 16:9 LED - 64K
Resolution	800x480, WVGA
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 600 MHz
Operating System	Microsoft Windows CE 6.0
Flash	128 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	47+4 mm (1.85+0.16")
Weight	Approx 1.0 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 USB port (version 2.0 - 1.1)
4 USB port (version 2.0 High speed only)
5 Power Supply
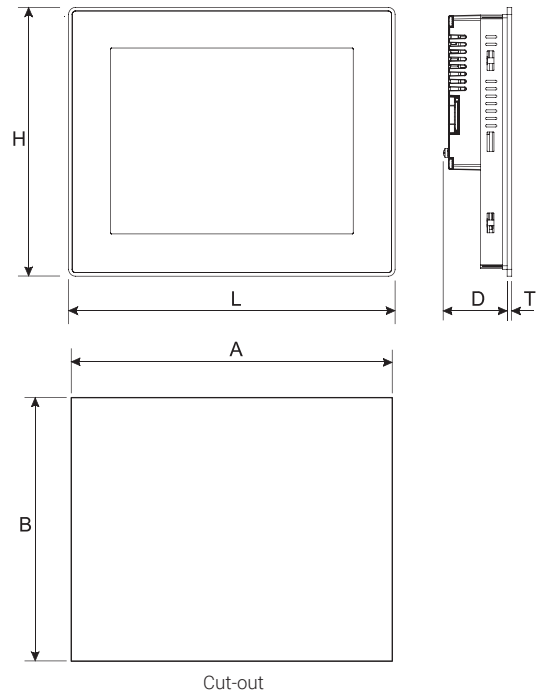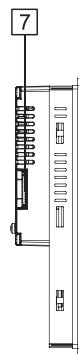6 SD Card Slot
7 2x Expansion slot for Plugin module

Cut-out

Ordering Information

Model	Part Number	Description
eTOP507-White	+ETOP507U1P3	7" widescreen TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile runtime.
eTOP507-Silver	+ETOP507U2P3	7" widescreen TFT color touchscreen with Ethernet and USB interfaces. Silver front panel. JMobile runtime.
eTOP507-Black	+ETOP507U3P3	7" widescreen TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile runtime.
PROTFOIL-07-GL	R-PROT12	Disposable protection foil for 5.7" and 7" eTOP touch panels (10 pieces).
PROTFOIL-07-UV	R-PROT18	Disposable protection foil for 5.7" and 7" eTOP touch panels (10 pieces). UV resistant.

eTOP507M - Technical Data

System Resources	
Display - Colors	7" TFT 16:9 LED - 64K
Resolution	800x480, WVGA
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Depth D+T	47+4 mm (1.85+0.16")
Weight	Approx 1.0 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1. Serial Port
2. 2x Ethernet Port
3. USB port (version 2.0 - 1.1)
4. USB port (version 2.0 High speed only)
5. Power Supply
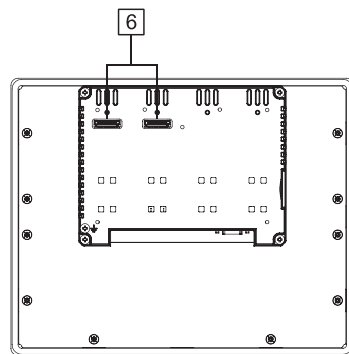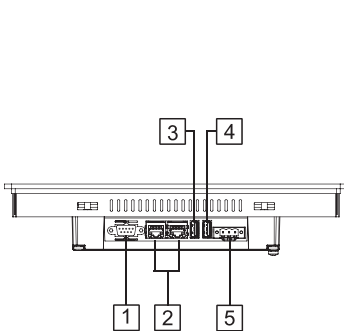6. SD Card Slot
7. 2x Expansion slot for Plugin module

Cut-out

Ordering Information

Model	Part Number	Description
eTOP507M-White	+ETOP507MU1P1	7" widescreen TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile runtime.
eTOP507M-Silver	+ETOP507MU2P1	7" widescreen TFT color touchscreen with Ethernet and USB interfaces. Silver front panel. JMobile runtime.
eTOP507M-Black	+ETOP507MU3P1	7" widescreen TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile runtime.
PROTFOIL-07-GL	R-PROT12	Disposable protection foil for 5.7" and 7" eTOP touch panels (10 pieces).
PROTFOIL-07-UV	R-PROT18	Disposable protection foil for 5.7" and 7" eTOP touch panels (10 pieces). UV resistant.

eTOP510 - Technical Data

System Resources	
Display - Colors	10"4 TFT LED - 64K
Resolution	800x600, SVGA
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	287x232 mm (11.3x9.13")
Cutout AxB	276x221 mm (10.86x8.70")
Depth D+T	56+4 mm (2.20+0.16")
Weight	Approx. 2.1 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1. Serial Port
2. 2x Ethernet Port
3. USB port (version 2.0 - 1.1)
4. USB port (version 2.0 High speed only)
5. Power Supply
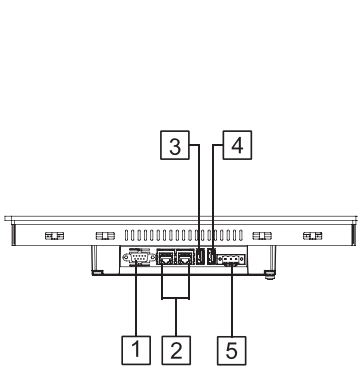6. 2x Expansion slot for Plugin module
7. SD Card Slot

Cut-out

Ordering Information

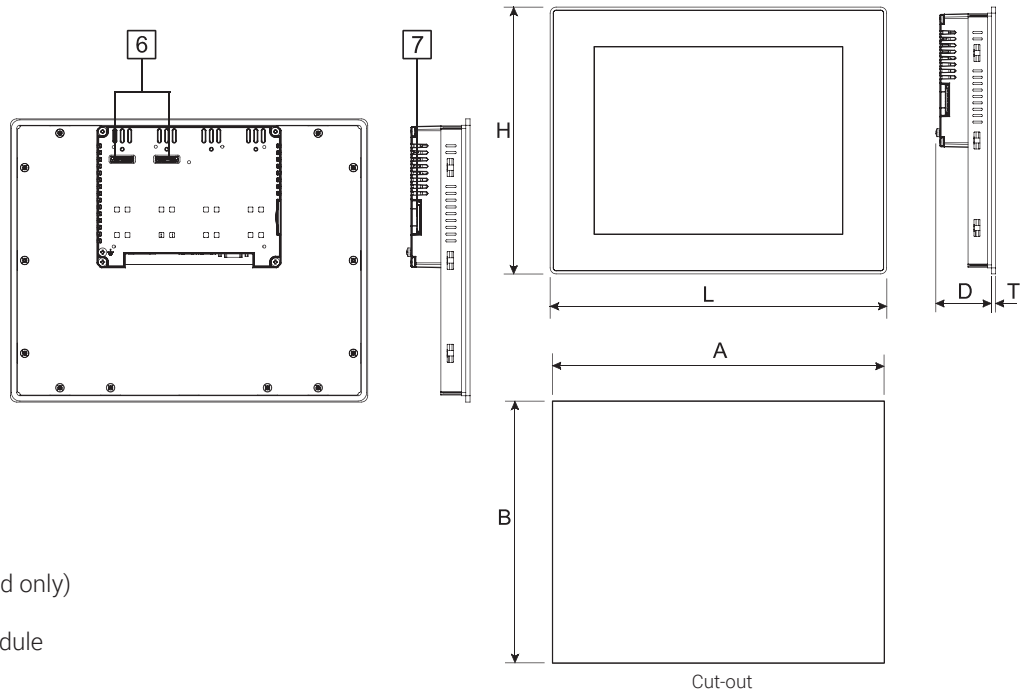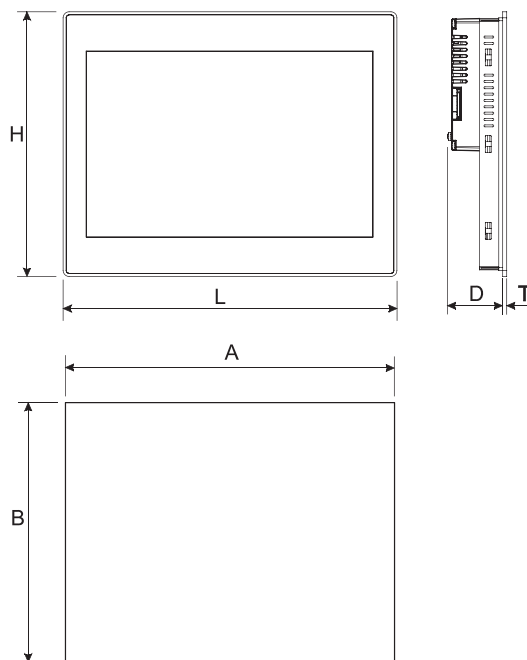| Model	Part Number	Description
eTOP510-White	+ETOP510U1P1	10"4 TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile runtime.
eTOP510-Silver	+ETOP510U2P1	10"4 TFT color touchscreen with Ethernet and USB interfaces. Silver front panel. JMobile runtime.
eTOP510-Black	+ETOP510U3P1	10"4 TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile runtime.
PROTFOIL-10-GL	R-PROT14	Disposable protection foil for 10"4 eTOP touch panels (10 pieces).
PROTFOIL-10-UV	R-PROT20	Disposable protection foil for 10"4 eTOP touch panels (10 pieces). UV resistant.

eTOP512 - Technical Data

System Resources	
Display - Colors	12"1 TFT LED - 64K
Resolution	800x600, SVGA
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.05 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	336x267 mm (13.22x10.51")
Cutout AxB	326x256 mm (12.83x10.07")
Depth D+T	56+4 mm (2.20+0.16")
Weight	Approx. 2.8 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1. Serial Port
2. 2x Ethernet Port
3. USB port (version 2.0 - 1.1)
4. USB port (version 2.0 High speed only)
5. Power Supply
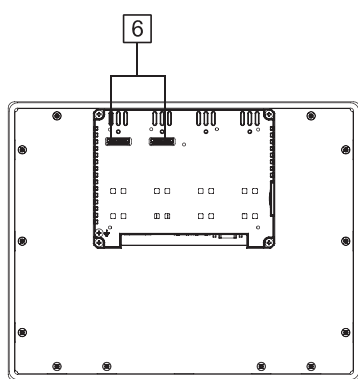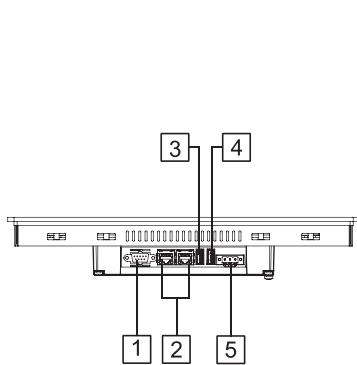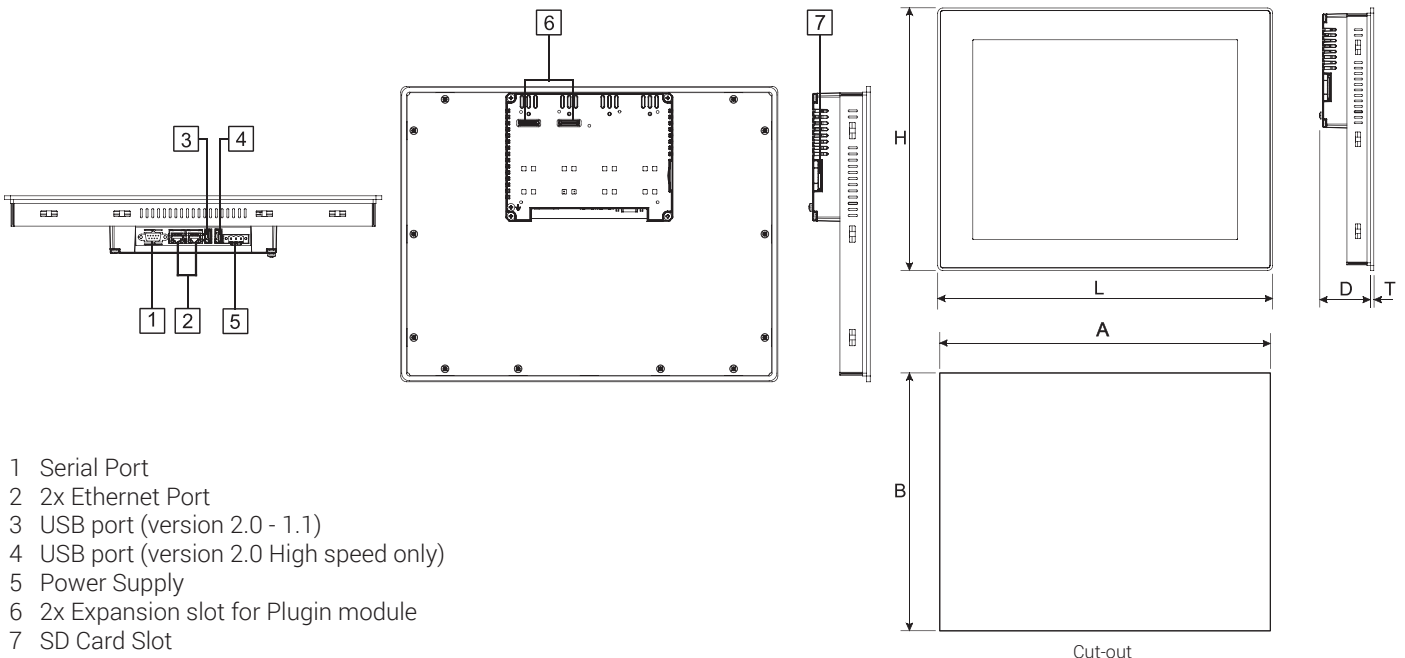6. 2x Expansion slot for Plugin module
7. SD Card Slot

Cut-out

Ordering Information

Model	Part Number	Description
eTOP512-White	+ETOP512U1P1	12"1 TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile runtime.
eTOP512-Silver	+ETOP512U2P1	12"1 TFT color touchscreen with Ethernet and USB interfaces. Silver front panel. JMobile runtime.
eTOP512-Black	+ETOP512U3P1	12"1 TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile runtime.
PROTFOIL-15-GL	R-PROT13	Disposable protection foil for 12"1 eTOP touch panels (10 pieces).
PROTFOIL-13-UV	R-PROT21	Disposable protection foil for 12"1 eTOP touch panels (10 pieces). UV resistant.

eTOP513 - Technical Data

System Resources	
Display - Colors	13"3 TFT 16:9 LED - 64K
Resolution	1280x800, WXGA
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.15 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	336x267 mm (13.22x10.51")
Cutout AxB	326x256 mm (12.83x10.07")
Depth D+T	56+4 mm (2.20+0.16")
Weight	Approx. 2.8 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 USB port (version 2.0 - 1.1)
4 USB port (version 2.0 High speed only)
5 Power Supply
6 2x Expansion slot for Plugin module
7 SD Card Slot

Cut-out

Ordering Information

Model	Part Number	Description
eTOP513-White	+ETOP513U1P1	13"3 widescreen TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile runtime.
eTOP513-Silver	+ETOP513U2P1	13"3 widescreen TFT color touchscreen with Ethernet and USB interfaces. Silver front panel. JMobile runtime.
eTOP513-Black	+ETOP513U3P1	13"3 widescreen TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile runtime.
PROTFOIL-13-GL	R-PROT15	Disposable protection foil for 13"3 widescreen eTOP touch panels (10 pieces).
PROTFOIL-13-UV	R-PROT21	Disposable protection foil for 13"3 widescreen eTOP touch panels (10 pieces). UV resistant.

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eTOP515 - Technical Data

System Resources	
Display - Colors	15" TFT LED - 64K
Resolution	1024x768, XGA
Brightness	300 Cd/m² typ.
Dimming	to 0%
Touchscreen	Resistive
CPU	ARM Cortex-A8 - 1 GHz
Operating System	Microsoft Windows CE 6.0
Flash	256 MB
RAM	256 MB DDR
Real Time Clock, RTC Back-up, Buzzer	Yes, Yes, Yes
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100) with integrated Switch
USB port	2 (port 1 - Host V2.0, port 2 - Host V2.0/1.1)
Serial port	1 (RS-232, RS-485, RS-422, MPI software configurable)
SD card	Yes
Expansion	2 slot for plug in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Current Consumption	1.25 A at 24 Vdc (max.)
Input Protection	Automatic
Battery	Rechargeable Lithium battery, not user-replaceable
Environment Conditions	
Operating Temp	0 to +50 °C
Storage Temp	-20 to +70 °C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 12, 4X
Dimensions and Weights	
Faceplate LxH	392x307 mm (15.43x12.08")
Cutout AxB	381x296 mm (15x11.65")
Depth D+T	60+4 mm (2.36+0.16")
Weight	Approx 3.5 Kg
Approvals	
CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
UL	cULus: UL508
UL	cULus: Class I Div. 2
DNV-GL	Yes
RCM	Yes

1 Serial Port
2 2x Ethernet Port
3 USB port (version 2.0 - 1.1)
4 USB port (version 2.0 High speed only)
5 Power Supply
6 2x Expansion slot for Plugin module
7 SD Card Slot

Cut-out

Ordering Information

Model	Part Number	Description
eTOP515-White	+ETOP515U1P1	15" TFT color touchscreen with Ethernet and USB interfaces. White front panel. JMobile runtime.
eTOP515-Silver	+ETOP515U2P1	15" TFT color touchscreen with Ethernet and USB interfaces. Silver front panel. JMobile runtime.
eTOP515-Black	+ETOP515U3P1	15" TFT color touchscreen with Ethernet and USB interfaces. Black front panel. JMobile runtime.
PROTFOIL-15-GL	R-PROT16	Disposable protection foil for 15" widescreen eTOP touch panels (10 pieces).
PROTFOIL-15-UV	R-PROT22	Disposable protection foil for 15" widescreen eTOP touch panels (10 pieces). UV resistant.

Accessories

Model	Part Number	Description
PLCM01	+PLCM01U0P1	Plug-in module CAN
PLCM02	+PLCM02U001	Plug-in module KNX/EIB (TP interface)
PLCM03	+PLCM03U0P1	Plug-in module RS-232
PLCM04	+PLCM04U0P1	Plug-in module RS-422/485 with optical insulation
PLCM05	+PLCM05U0P2	Plug-in extender for use with PLIO03/04 (only for eTOP504)
PLCM06	+PLCM06U0P1	Plug-in module Profibus DP slave 12 MB
PLCM07	+PLCM07U0P1	Plug-in Secure Cloud Connector
CODESYS V3 SoftPLC	+SWLC00R000000	CODESYS V3 activation license
PLCM01-CDS	+PLCM01U0P2	Plug-in module CAN + CODESYS V2
PLCM02-CDS	+PLCM02U002	Plug-in module KNX/EIB (TP interface) + CODESYS V2
PLCM05-CDS	+PLCM05U0P1	Plug-in module CODESYS V2
PLIO03	+PLIO03U0P1	I/O Module with 20 DI 24 VDC, 12 DO 24 VDC 0,5 A, 8 AI (4 diff or 8 single or 4 PT100 or 4 TC), 4 AO, 1 PT100 Cold Junct
PLIO04	+PLIO04U0P1	I/O Module with 10 DI 24 VDC, 10 DO SSR 1.4 A, 4 Programmable AI voltage/PT100/TC, 4 AI voltage, 1 PT100
PLIO06	+PLIO06U0P1	Compact I/O module. 8 DI, 6 DO, 1 Relay Output
PLIO07	+PLIO07U001	Compact I/O module. 2 Relay Outputs

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Smart Edge

Smart Edge - JSmart Series

When aesthetics and functionality meet, the market changes

- from 5.0" to 21.5" TFT color display,
- up to a resolution 1920x1080 pixel with 16M colors, dim-
  mable backlight
- PCAP Touchscreen Multitouch with swiping and zooming
- 10/100 Ethernet port PoE single cable for power and
  ethernet
- Wi-Fi Connection
- up to a ARM Cortex-A9 quad core CPU
- Full IP67 protection; ideal for mounting-arm installation
  right at the machine
- Mounts on 22 mm hole
- Includes environment and motion sensors
- Can be used with cable up to 100 m distance from source

Overview

Every once and a while a new product arrives that changes the market. It influences the perspective of all participants by encouraging them to question the status quo. And challenging that which has been done before is when innovation leads to a lasting difference being created.

EXOR International would like to invite you on this journey of imagination and discovery by introducing the JSmart family of Smart HMI Field Devices. A product that seems as if from the consumer world of smartphones, tablets and PCs and yet a robust industrial grade product that will last multiple years.

We have worked for many years to redesign nearly 80% of the internal components on the board to accommodate an incredibly beautiful and slim casing. Looking at the product from any angle there is a sense of tranquillity and purity that belies the potent technology that lies beneath.

Up to a quad-core Cortex A9, multi-touch and robust glass front, a full set of motion and environment sensors and wifi interface all add up to provide you with a vast possibility of applications.

Challenge what has come before.

JSmart705 - Technical Data

System Resources	
Display - Colors	5" TFT – 16M
Resolution	800x480
Brightness	300 cd/m² typ.
Dimming	to 0%
Touchscreen	Projected capacitive – Multitouch
CPU	ARM Cortex-A9 dual core - 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
FRAM	64 KB
Real Time Clock, RTC Back-up	Yes
Interface	
Ethernet port	10/100 PoE
USB port	1 (Host V2.0, max. 50 mA, available with special cable)
LED	1 RGB
Sensors	Temperature, 3-Axis Accelerometer
Buzzer	Yes
Ratings	
Power supply	IEEE 802.3af PoE
Power Consumption	6 W
Battery	Yes (rechargeable)
Environment Conditions	
Operating Temp	-20° to +55° C (vertical installation)
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) Type: 1, 12, 4x
Dimensions and Weights	
Faceplate LxH	148.3x105.1 mm (5.83x 4.13")
Depth D+T+T	16.5 mm (0.06")
Weight	0.5 Kg
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environment
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
RCM	Yes

Ordering Information

Model	Part Number	Description
JSmart705	+JS705BA0U5P1	Field-ready HMI 5" TFT with PCAP touchscreen

JSmart707 - Technical Data

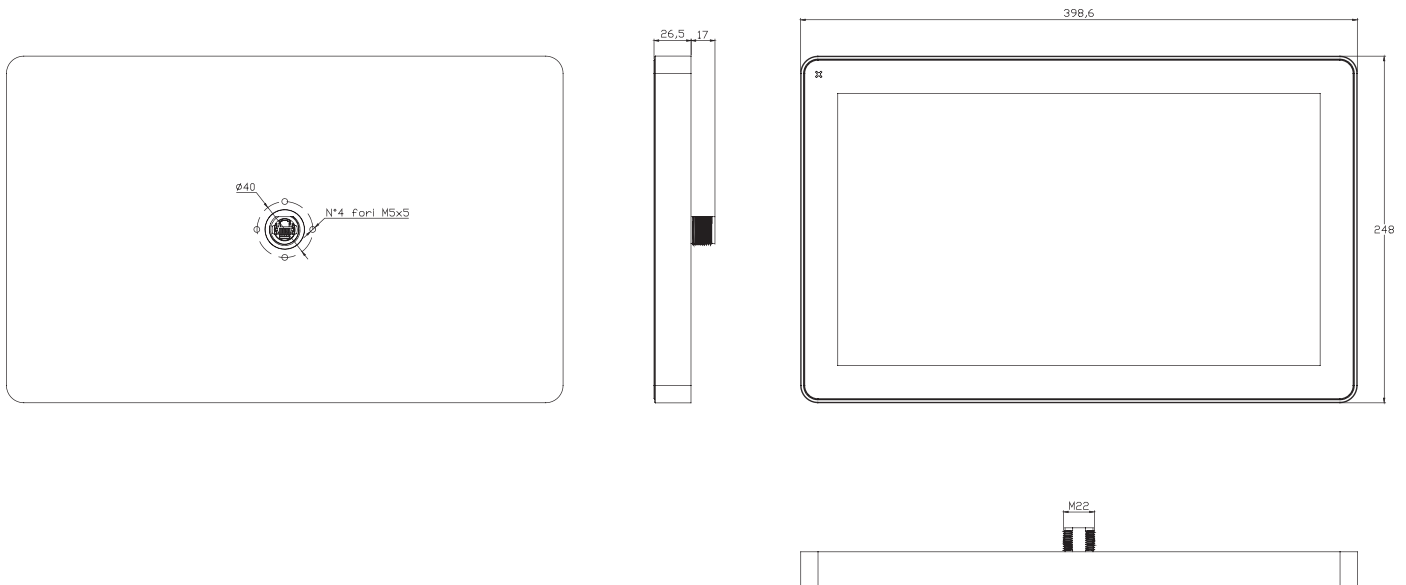| System Resources	
Display - Colors	7" TFT – 16M
Resolution	1024x600
Brightness	400 cd/m² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive – Multitouch
CPU	ARM Cortex-A9 dual core - 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
FRAM	64 KB
Real Time Clock, RTC Back-up	Yes
Interface	
Ethernet port	10/100 PoE
USB port	1 (Host V2.0, max. 50 mA, available with special cable)
LED	1 RGB
Sensors	Temperature, 3-Axis Accelerometer
Wi-Fi	IEEE 802.11a/b/g
Buzzer	Yes
Ratings	
Power supply	IEEE 802.3af PoE
Power Consumption	9 W
Battery	Yes (rechargeable)
Environment Conditions	
Operating Temp	-20° to +55° C (vertical installation)
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) Type: 1, 12, 4x
Dimensions and Weights	
Faceplate LxH	195.2x131.6 mm (7.68x5.18")
Depth D+T+T	16.5 mm (0.06")
Weight	0.7 Kg
Approvals	
CE	EN 6231, EN 61010-1, EN IEC 61010-2-201 EN 61000-6-2, EN 61000-6-4, EN 61000-6-1, EN 61000-6-3, ETSI EN 301 489-1, ETSI EN 301 489-17 ETSI EN 300 328
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
RCM	Yes

Ordering Information

Model	Part Number	Description
JSmart707	+JS707BB1U5P1	Field-ready HMI 7" TFT with PCAP touchscreen, Ethernet port PoE

JSmart710 - Technical Data
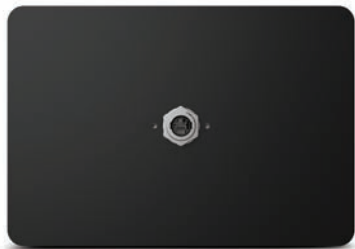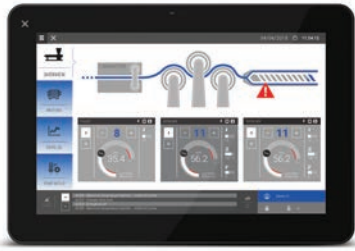
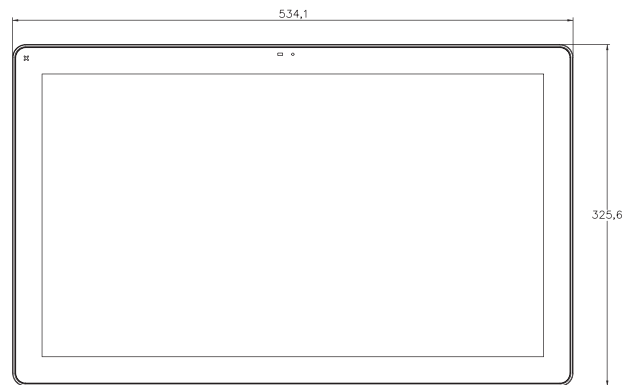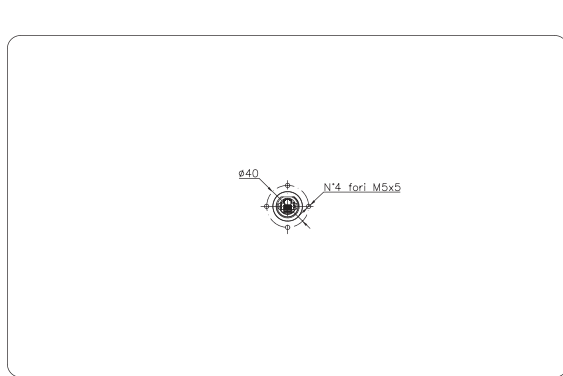| System Resources	
Display - Colors	10.1" TFT – 16M
Resolution	1280x800
Brightness	400 cd/m² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive – Multitouch
CPU	ARM Cortex-A9 dual core - 800 MHz
Operating System	Linux RT
Flash	4 GB
RAM	1 GB
FRAM	64 KB
Real Time Clock, RTC Back-up	Yes
Interface	
Ethernet port	10/100 PoE
USB port	1 (Host V2.0, max. 50 mA, available with special cable)
LED	1 RGB
Sensors	Temperature, 3-Axis Accelerometer
Wi-Fi	IEEE 802.11a/b/g
Buzzer	Yes
Ratings	
Power supply	IEEE 802.3af PoE
Power Consumption	12 W
Battery	Yes (rechargeable)
Environment Conditions	
Operating Temp	-20° to +55° C (vertical installation)
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) Type: 1, 12, 4x
Dimensions and Weights	
Faceplate LxH	264.5x183.1 mm (10.41x7.20")
Depth D+T+T	16.5 mm (0.06")
Weight	1.2 Kg
Approvals	
CE	EN 6231, EN 61010-1, EN IEC 61010-2-201 EN 61000-6-2, EN 61000-6-4, EN 61000-6-1, EN 61000-6-3, ETSI EN 301 489-1, ETSI EN 301 489-17 ETSI EN 300 328
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
RCM	Yes

Ordering Information

Model	Part Number	Description
JSmart710	+JS710BC1U5P1	Field-ready HMI 10.1" TFT with PCAP touchscreen, Ethernet port PoE

JSmart715 - Technical Data
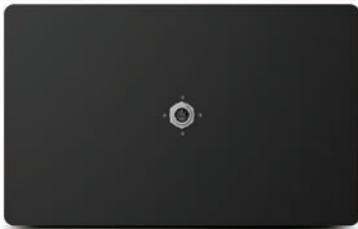
System Resources	
Display - Colors	15.6" TFT – 16M
Resolution	1366x768
Brightness	400 cd/m² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive – Multitouch
CPU	ARM Cortex-A9 quad core - 800 MHz
Operating System	Linux RT
Flash	8 GB
RAM	2 GB
FRAM	64 KB
Real Time Clock, RTC Back-up	Yes
Interface	
Ethernet port	10/100 PoE
USB port	1 (Host V2.0, max. 50 mA, available with special cable)
LED	1 RGB
Sensors	Temperature, 3-Axis Accelerometer
Wi-Fi	IEEE 802.11a/b/g
Buzzer	Yes
Ratings	
Power supply	IEEE 802.3at PoE+
Power Consumption	19 W
Battery	Yes (rechargeable)
Environment Conditions	
Operating Temp	-20° to +55° C (vertical installation)
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) Type: 1, 12, 4x
Dimensions and Weights	
Faceplate LxH	398.6x248 mm (15.69x 9.76")
Depth D+T+T	26.5 mm (1.04")
Weight	4.0 Kg
Approvals	
CE	EN 6231, EN 61010-1, EN IEC 61010-2-201
	EN 61000-6-2, EN 61000-6-4, EN 61000-6-1, EN 61000-6-3, ETSI EN 301 489-1, ETSI EN 301 489-17
	ETSI EN 300 328
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
RCM	Yes

Ordering Information

Model	Part Number	Description
JSmart715	+JS715CD1U5P1	Field-ready HMI 15.6" 1366x768 TFT with PCAP touchscreen, Ethernet port PoE

JSmart721 - Technical Data
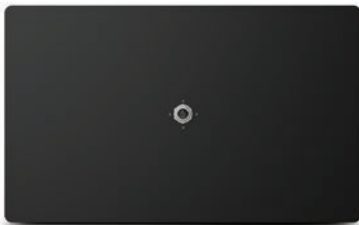
System Resources	
Display - Colors	21.5" TFT − 16M
Resolution	1920x1080
Brightness	400 cd/m² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive − Multitouch
CPU	ARM Cortex-A9 quad core - 800 MHz
Operating System	Linux RT
Flash	8 GB
RAM	2 GB
FRAM	64 KB
Real Time Clock, RTC Back-up	Yes
Interface	
Ethernet port	10/100 PoE
USB port	1 (Host V2.0, max. 50 mA, available with special cable)
LED	1 RGB
Sensors	Temperature, 3-Axis Accelerometer
Wi-Fi	IEEE 802.11a/b/g
Buzzer	Yes
Ratings	
Power supply	IEEE 802.3bt 4PPoE
Power Consumption	32 W
Battery	Yes (rechargeable)
Environment Conditions	
Operating Temp	-20° to +55° C (vertical installation)
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) Type: 1, 12, 4x
Dimensions and Weights	
Faceplate LxH	534.1x325.6 mm (21.02x 12.81")
Depth D+T+T	26.5 mm (1.04")
Weight	6.0 Kg
Approvals	
CE	EN 6231, EN 61010-1, EN IEC 61010-2-201
	EN 61000-6-2, EN 61000-6-4, EN 61000-6-1, EN 61000-6-3, ETSI EN 301 489-1, ETSI EN 301 489-17
	ETSI EN 300 328
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
RCM	Yes

Ordering Information

Model	Part Number	Description
JSmart721	+JS721CE1U5P1	Field-ready HMI 21.5" 1920x1080 TFT with PCAP touchscreen, Ethernet port PoE

JSmart Applications

1   Choose the panel size and technical specifications applicable for your needs

2   Look through the Application examples provided to help with imagining how to use the JSmart

3   Consult the pages on brackets, cables and PoE

4   Enhance the experience of working each day with a new Smart HMI Field

JSmart - Applications

Tube Attachments for JSmart705, 707, 710

Designed for direct tube fitting or more complex curving is required this application will work with the 5,7 and 10 inch panels. IP67 is achievable with this application.

The components you need for this application:

Tube Bracket

Ordering Code: +JSBRU001

Tube Bracket

Ordering Code: +JSBRU002

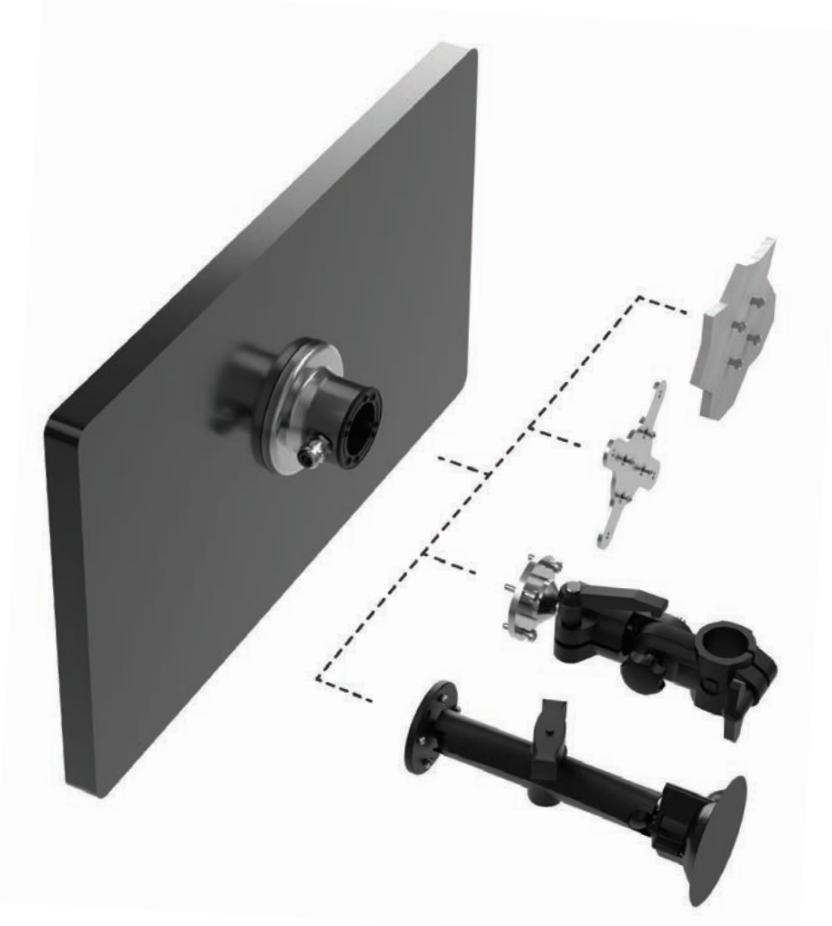### PoE Injector
DIN or Panel Mount

Choose your solution on p.104

Cable

Choose your solution on p.108

JSmart - Applications

Tube Attachments for JSmart715 and 721

Designed for direct tube fitting or more complex curving is required this application will work with the 15 and 21 inch panels. IP67 is achievable with this application.

The components you need for this application:

Tube Bracket

Ordering Code: +JSBRU002

PoE Injector
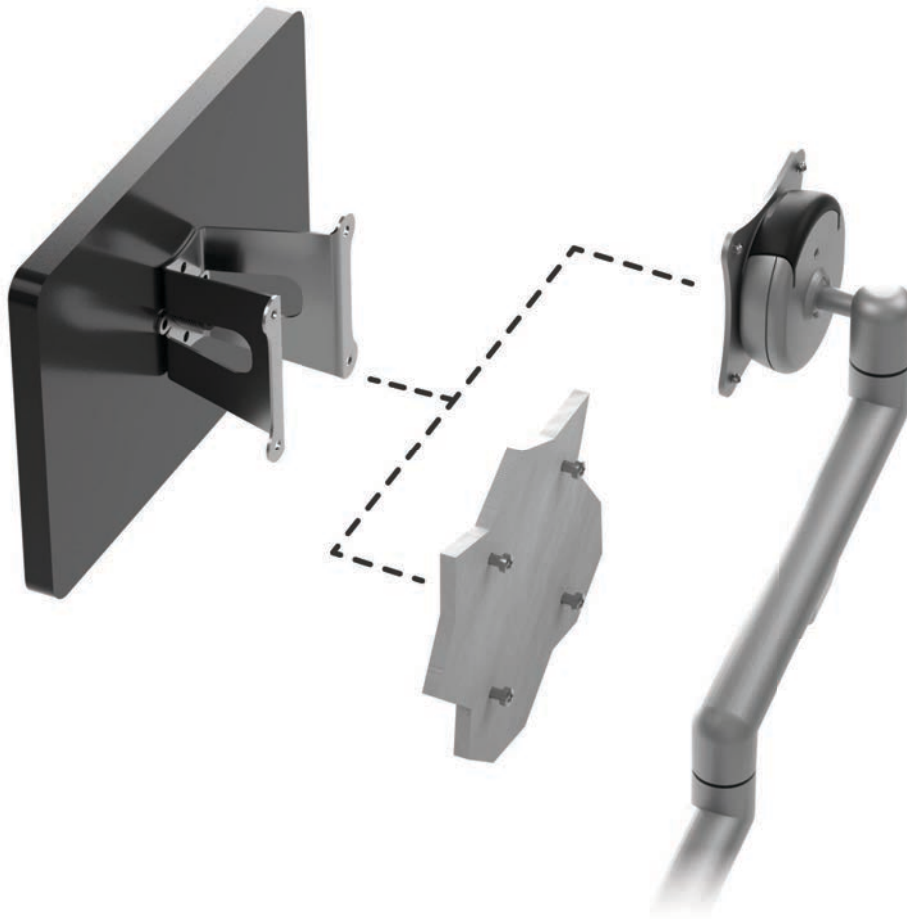DIN or Panel Mount

Choose your solution on p.104

Cable

Choose your solution on p.108

JSmart - Applications

Wall Attachment for JSmart705, 707, 710

When a simple yet sturdy attachment to a wall or cabinet is required, this application is suitable. All without losing the importance the JSmart flat casing. IP67 is achievable with this application.

The components you need for this application:

Wall Bracket
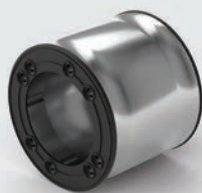
Ordering Code: +JSBRU003

PoE Injector
DIN or Panel Mount

Cable

JSmart - Applications

Wall Attachment for JSmart715 and 721

When a simple yet sturdy attachment to a wall or cabinet is required, this application is suitable. All without losing the importance the JSmart flat casing. IP67 is achievable with this application.

The components you need for this application:

Wall Bracket

Ordering Code: +JSBRU004

PoE Injector
DIN or Panel Mount

Cable

exorint.com

JSmart - Applications

Multi-use Attachments for JSmart705, 707, 710

With some universal types of arms the passage of the ethernet cable is impeded. We provide a side output with a special cable. IP67 is achievable with this application.
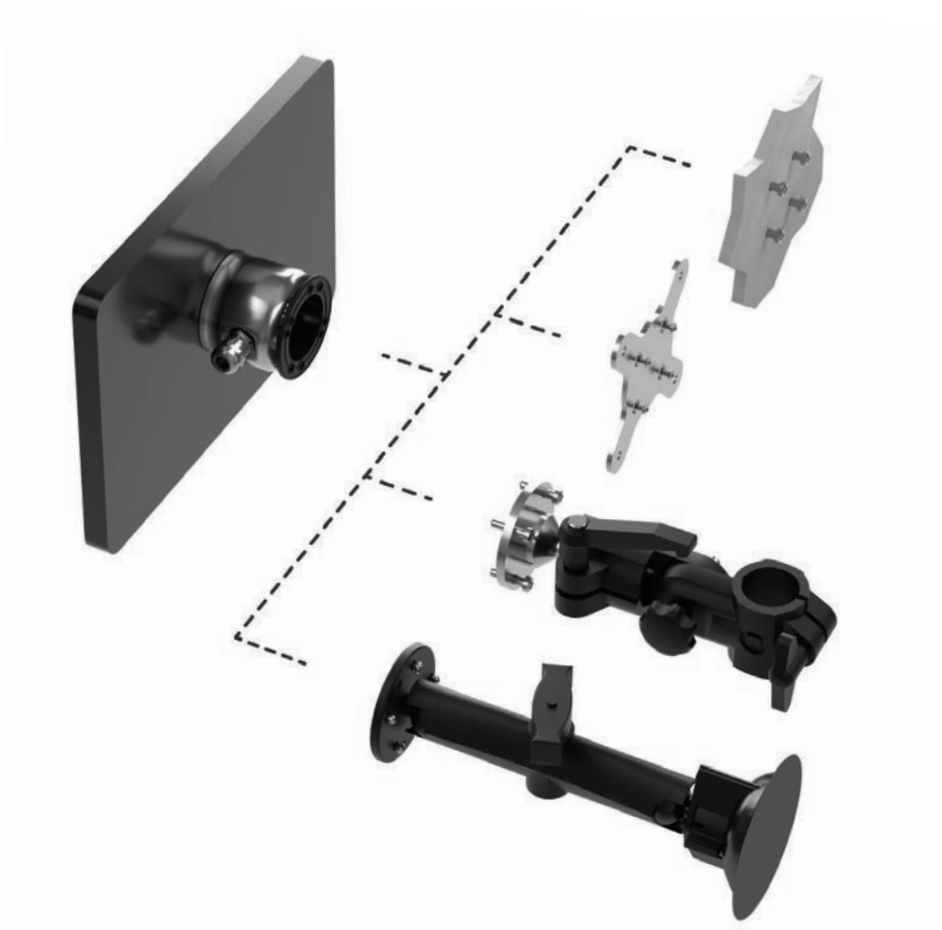
The components you need for this application:

Multi-use Bracket
with cable gland

Ordering Code: +JSBRU009

JSmart VESA
for Adapter Bracket

Ordering Code: +JSBRU008

PoE Injector
DIN or Panel Mount

Choose your solution on p.104

Ethernet Cable

Choose your solution on p.108

JSmart - Applications

Multi-use Attachments for JSmart715 and 721

With some universal types of arms the passage of the ethernet cable is impeded. We provide a side output with a special cable. IP67 is achievable with this application.

The components you need for this application:

Multi-use Bracket
with cable gland

Ordering Code: +JSBRU010

JSmart VESA
for Adapter Bracket

Ordering Code: +JSBRU008

PoE Injector
DIN or Panel Mount

Choose your solution on p.104

Ethernet Cable

Choose your solution on p.108

exorint.com

JSmart - Applications

Table Stand for JSmart all sizes

The JSmart is the quintessential "Stupid Web Browser". Except that it can be used in the heat and dust of the factory floor and last for years. This desktop table stand and USB cable for mouse permits this use in a highly stylish manner. IP67 is achievable with this application.

The components you need for this application:

JSmart Table Stand

Ordering Code: +JSBRU006

PoE Injector
DIN or Panel Mount

Cable PoE - USB

Ordering Code: +JSCAU003

JSmart - Applications

VESA Attachment for JSmart all sizes

In the very basic of situations where there is no need for the cable to be passed through the wall, this bracket can be used. IP67 is achievable with this application.

The components you need for this application:

JSmart VESA Bracket

Ordering Code: +JSBRU005

PoE Injector
DIN or Panel Mount

Cable

exorint.com

JSmart - Applications

Gooseneck Attachment for JSmart705, 707, 710

The gooseneck permits the JSmart to be used in many different situations, far away from the industrial environment.

The components you need for this application:

Gooseneck Bracket

Ordering Code: +JSBRU007

PoE Injector
DIN or Panel Mount

Choose your solution on p.104

JSmart Accessories

JSmart - Accessories

PoE Injectors

You can choose between the JSmart PoE Injector DIN rail mounting and the JSmart PoE Injector Panel mounting.

JSmart PoE Injector
DIN rail mounting

Ordering Code: +JSPOU0P1

JSmart PoE Injector
Panel mounting

Ordering Code: +JSPOU0P2

JSmart PoE Injector DIN rail mounting

Features	
PoE Standard	IEEE 802.3af/at
Output Power	36W max
DC Output Voltage	+54 Vdc
Data rates	10/100
Interface	
Ethernet IN port	10/100
Ethernet OUT port	10/100 PoE
Diagnostic LEDS	3
Ratings	
Power Supply	+24 Vdc (18-32 Vdc)
Current Consumption	2.0 A at 24 Vdc (max.)
Efficiency	80% typ
Over Voltage / Current Protection	Yes
Short Circuit Protection	Yes
Reverse Polarity	Yes
Environment Conditions	
Operating Temp	-20°C to +55° C
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing
Protection Class	IP20 EN60529
Dimensions and Weights	
Faceplate LxH	80x120 mm
Depth D	28 mm
Weight	350 g
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environment
UL	cULus: UL61010-1 / UL61010-2-201
RCM	Yes

LED	Color	Specifications
1	Red	Fault
2	Green	Status: PoE running
	Red, slow blink	Status: Over-load
	Red, fast blink	Status: Over-temperature
3	Green	Power ON

Ordering Information

Model	Part Number	Description
JSmart PoE	+JSPOU0P1	JSmart PoE Injector DIN rail mounting

JSmart PoE Injector Panel mounting

Features	
PoE Standard	IEEE 802.3af/at
Output Power	36W max
DC Output Voltage	+54 Vdc
Data rates	10/100
Interface	
Ethernet IN port	10/100
Ethernet OUT port	10/100 PoE
Diagnostic LEDS	3
Ratings	
Power Supply	+24 Vdc (18-32 Vdc)
Current Consumption	2.0 A at 24 Vdc (max.)
Efficiency	80% typ
Over Voltage / Current Protection	Yes
Short Circuit Protection	Yes
Reverse Polarity	Yes
Environment Conditions	
Operating Temp	-20°C to +55° C
Storage Temp	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing
Protection Class	IP20 EN60529
Dimensions and Weights	
Faceplate LxH	80x120 mm
Depth D	28 mm
Weight	350 g
Approvals	
CE	Emission EN 61000-6-4, Immunity EN 61000-6-2 for installation in industrial environment
UL	cULus: UL61010-1 / UL61010-2-201
RCM	Yes

LED	Color	Specifications
1	Red	Fault
2	Green	Status: PoE running
	Red, slow blink	Status: Over-load
	Red, fast blink	Status: Over-temperature
3	Green	Power ON

Ordering Information

Model	Part Number	Description
JSmart PoE	+JSPOU0P1	JSmart PoE Injector DIN rail mounting

JSmart - Accessories

Tube Brackets

Tube Bracket

37 mm distance from tube, 48 mm tube fitting, all gasket and screws included, IP67 rated

Ordering Code: +JSBRU001

Tube Bracket

50 mm distance from tube, 48 mm tube fitting, all gasket and screws included, IP67 rated

Ordering Code: +JSBRU002

Brackets for JSmart 705, 707, 710

Wall Bracket

50 mm distance from wall, all gasket and screws included, IP67 rated
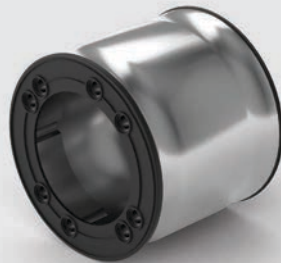
Ordering Code: +JSBRU003

Multi-use Bracket with cable gland

50 mm distance from wall, all gasket and screws included, IP67 rated

Ordering Code: +JSBRU009

Brackets for JSmart 715, 721

Wall Bracket

50 mm distance from wall, all gasket and screws included, IP67 rated

Ordering Code: +JSBRU004

Multi-use Bracket with cable gland

50 mm distance from wall, all gasket and screws included, IP67 rated

Ordering Code: +JSBRU010

exorint.com

JSmart - Accessories

Cables

Cable 90° PoE - 5 m

Ordering Code: +JSCAU001

Cable PoE - USB - 5 m

Ordering Code: +JSCAU003

Cable PoE - 5 m

Ordering Code: +JSCAU002

Cable PoE - 5 m

Ordering Code: +JSCAU004

JSmart - Accessories

Others

JSmart VESA Bracket

70 mm from wall, all gasket and screws included
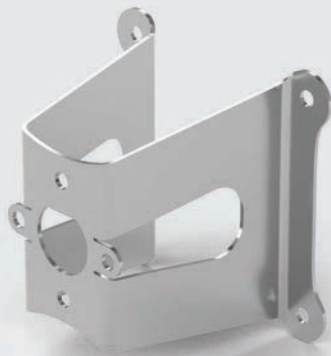
Ordering Code: +JSBRU005

JSmart Table Stand

use for desktop, 51.7 mm high, perfect height for ease of use

Ordering Code: +JSBRU006

Gooseneck Bracket

570 mm height, multi plane flexibility, IP20 rated, 5 m cable included in price

Ordering Code: +JSBRU007

JSmart VESA
for Adapter Bracket

Ordering Code: +JSBRU008

Industrial PC
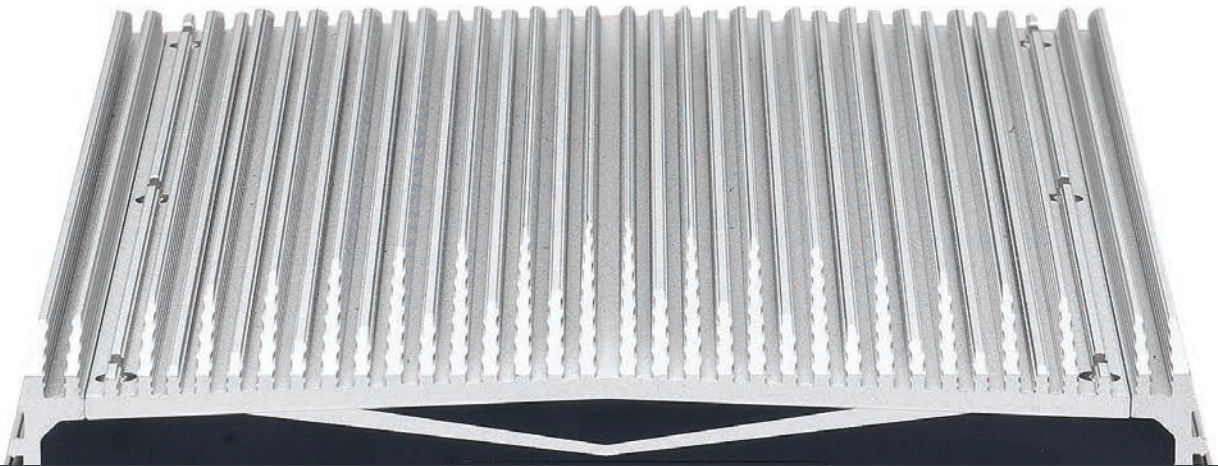
EXOR

EPC - Entry-level Panel PC

Fanless Panel PC

EXOR fanless Panel PC adopts an all-in-one concept that integrates a single board computer, TFT LCD Panel with LED backlight, and user-friendly touch screen within a slick and compact IP65 chassis.

Designed to serve as a flexible and reliable industrial computing platform, each Panel PC and Monitor is a compact, highly integrated, network-ready computer with exceptional I/O connectivity. The industrial-grade machinery computer from EXOR is designed for use in any light industrial environments.

Overview

All products are available in wide and flexible range of configurations. You will have the product that fits your needs. All products have a robust mechanical construction that will suit the most demanding of applications.

Products can be configured with a different choice of CPU, RAM, disk and operating systems.
PC offered by EXOR International are the ideal system for running applications based on JMobile PC Runtime.
An application integrating HMI on a powerful hardware platform is ready in all cases where the embedded HMIs do not meet all requirements.

eTOP-EPC0840T - Technical Data

Panel
- LCD size: 8", 4:3
- Resolution: SVGA 800 x 600
- Luminance: 400 cd/m^2
- Contrast ratio: 500
- LCD color: 262K
- Viewing angle: 50(U), 70(D), 70(L), 70(R)
- Backlight: LED

Touch screen
- 5 -wire resistive (flush panel type)
- Touch light transmission: 82%
- Touch interface: USB

System
- CPU: on-board Intel® Atom™ dual core processor E3826, 1.46GHz, 1M L2 cache
- BIOS: AMI BIOS
- System memory: 1x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 1 x mini-PCIe socket1 (support optional Wi-Fi, 3.5G module or fieldbus card)

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 3 x USB 2.0; 1 x USB 3.0
- Power switch
- Remote power switch
- Reset button
- COM #1: RS232/422/485
- COM #2: RS232/422/485
- Fieldbus: (protocol interface optional)

Audio
- HD codec: realtek ALC886-GR
- Audio interface: Line-out audio jack

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone black
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 75mm x 75mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 217.4x176.4x68.9mm
- Weight: 2.3Kg

Certifications
- CE approval
- FCC Class A

OS Support Lists
- Windows 10 IoT 32bit/64 bit
- Windows 7 32-bit/64-bit
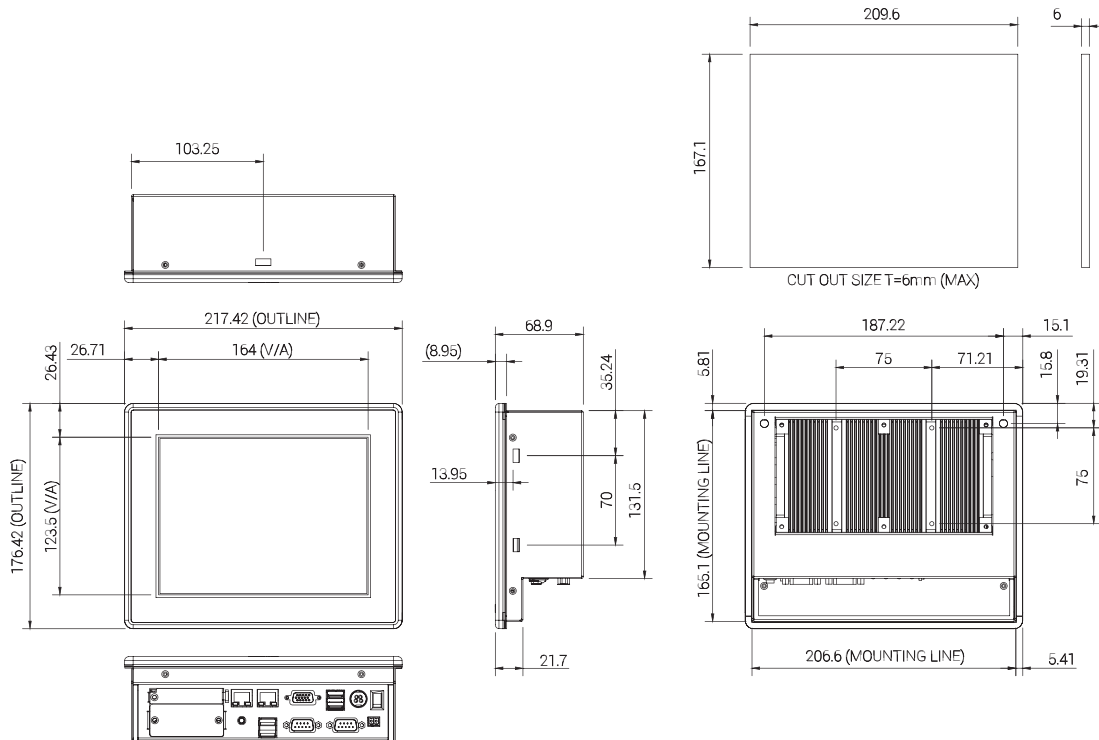
Ordering Information

Model	Part Number	Description
eTOP-EPC0840T	+71EPC0840T	8" TFT SVGA 4:3 Flush Panel PC with Intel® Atom™ E3826, 1.46GHz, Touch Screen, 2GB DDR3L, 4x USB, 2x COM and VGA

eTOP-EPC1245T Technical Data

Panel
- LCD size: 12.1", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 500cd/m2
- Contrast ratio: 700
- LCD color: 16.7M
- Viewing angle: 70(U), 70(D), 80(L), 80(R)
- Backlight: LED

Touch Screen
- 5-wire resistive (flush panel type)
- Light transmission: 80%
- Interface: USB

System
- CPU: on-board Intel® Celeron® Quad Core processor J1900, up to 2.0GHz, 2M L2 cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1x External locked CFast socket
- 1x Hard drive bay: optional 1x 2.5" SATA HDD or 1x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

Rear I/O
- Ethernet: 2x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2x USB 2.0 + 1x USB 3.0
- Power switch
- Reset button
- 2-Pin remote power on/off switch

- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

Audio
- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

Ethernet
- LAN chip: dual Intel® I210-AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane and black silver PC box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power
  Powerinput:12V~30VDC
  Poweradapter:optionalACtoDCpoweradapter(+12V,60W)
- Vibration:
  IEC682-64(w/HDD)
  1Grms@sine,5~500Hz,1hr/axis (HDDoperating)
  2Grms@sine,5~500Hz,1hr/axis (CFastoperating)
  2.2Grms@randomcondition,5~500Hz,0.5hr/axis (non-operating)
- Shock:
  IEC682-27
  HDD:20G@wallmount,halfsine,11ms
- Temperature
  Operating temperature: -5°C~60°C
  Storage temperature: -20°C~75°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 317 x 243 x 65.5 mm
- Weight: 3.6 kg

Certifications
- CE approval
- FCC Class A
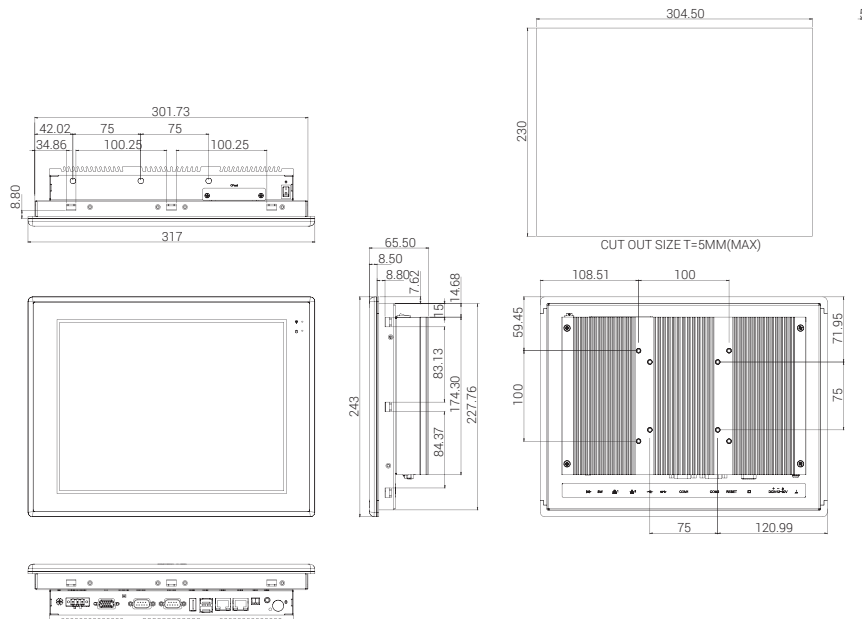
Ordering Information

Model	Part Number	Description
eTOP-EPC1245T	+71EPC1245TJ	12.1" TFT XGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.0GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM

eTOP-EPC1540T - Technical Data

Panel
- LCD size: 15", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 400cd/m2
- Contrast ratio: 2500
- LCD color: 16.7M
- Viewing angle: 88 (U), 88 (D), 88 (L), 88 (R)
- Backlight: LED

Touch Screen
- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

System
- CPU: on-board Intel® Celeron® Quad Core processor J1900 processor, up to 2.42GHz, 2M L2 cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- Power switch
- Reset button
- 2-pin remote power on/off switch
- COM #1: RS232/422/485 w/ 2.5kv isolated

- COM #2: RS232/422/485 w/ 2.5kv isolated

Audio
- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane and black silver PC box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 384.37 x 309.95 x 63.2 mm
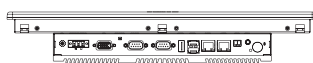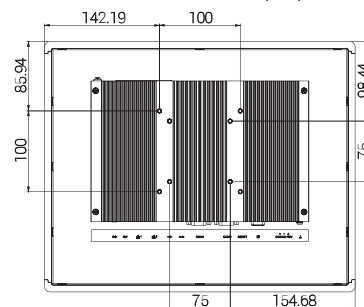- Weight: 5.1 Kg

Certifications
- CE approval
- FCC Class A

OS Support Lists
- Windows 7 32-bit/64-bit
- Windows 10 IoT 32bit/64 bit
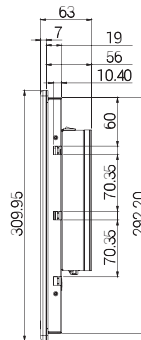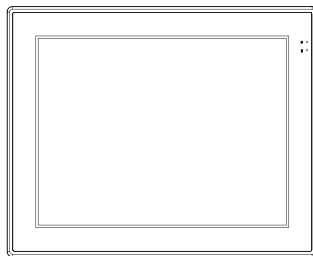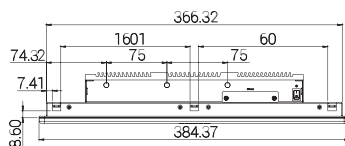
Ordering Information

Model	Part Number	Description
eTOP-EPC1540T	+71EPC1540TJ	15" TFT XGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.42GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM

eTOP-EPC1740T - Technical Data

Panel
- LCD size: 17", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m2
- Contrast ratio: 800
- LCD color: 16.7M
- Viewing angle: 60 (U), 80 (D), 80 (L), 80 (R)
- Backlight: LED

Touch Screen
- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

System
- CPU: on-board Intel® Celeron® Quad Core processor J1900, up to 2.42GHz, 2M L2 Cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C) H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- Power switch
- Reset button
- 2-pin remote power on/off switch
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

Audio
- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane and black silver PC box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity,   non-condensing limits to be at 90% RH at max 50°C
- Dimension: 410.4 x 340.4 x 65.9mm
- Weight: 6.7 Kg

Certifications
- CE approval
- FCC Class A

OS Support Lists
- Windows 7 32-bit/64-bit
- Windows 10 IoT 32bit/64 bit
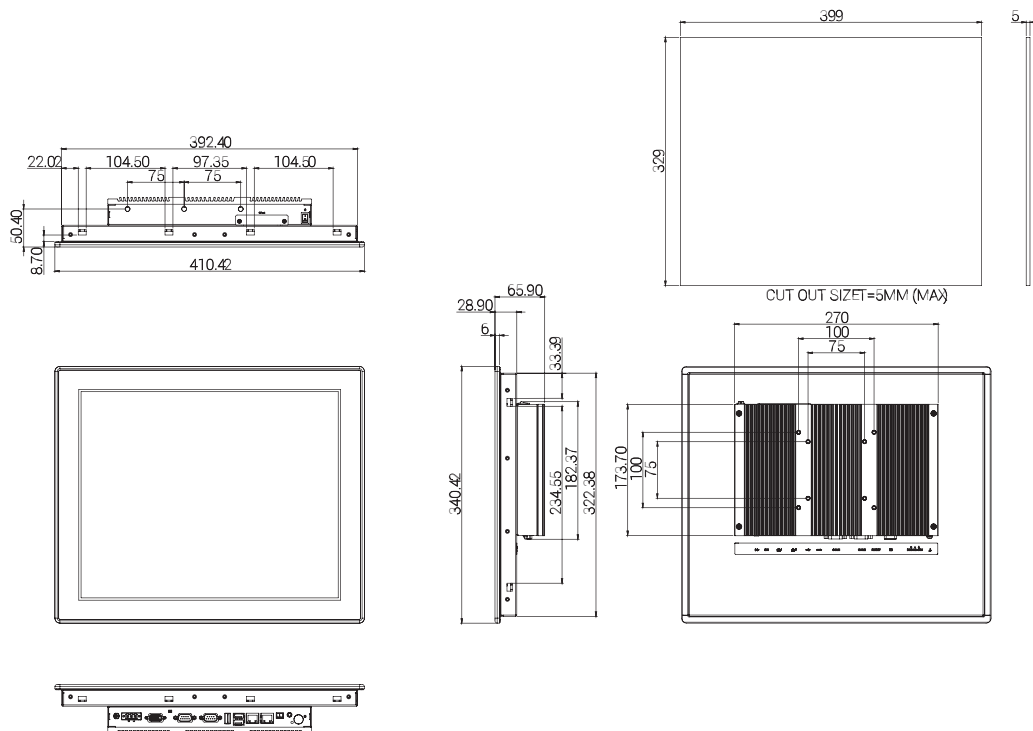
Ordering Information

Model	Part Number	Description
eTOP-EPC1740T	+71EPC1740TJ	17" TFT SXGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.42GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM

eTOP-EPC1940T - Technical Data

Panel
- LCD size: 19", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m2
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch Screen
- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

System
- CPU: on-board Intel® Celeron® Quad Core processor J1900 , up to 2.42GHz, 2M L2 cache
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device
- 1 x External locked CFast socket
- 1 x Hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- Power switch
- Reset button
- 2-Pin remote power on/off switch
- COM #1: RS232/422/485 w/2.5kv isolated
- COM #2: RS232/422/485 w/2.5kv isolated

Audio
- HD audio codec: realtek ALC886-GR
- Audio interface: Line-out

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone black\RAL 15 00 front bezel w/ Pantone 400C\RAL 090 80 10 metal style membrane and black silver PC box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power input: 12V~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -5°C~50°C
- Storage temperature: -20°C~60°C
- Operating humidity: 10%~90% relative humidity, non-condensing limits to be at 90% RH at max 50°C
- Dimension: 457.64 x 379.24 x 61.25 mm
- Weight: 6.3Kg

Certifications
- CE approval
- FCC Class A

OS Support Lists
- Windows 7 32-bit/64-bit
- Windows 10 IoT 32bit /64 bit
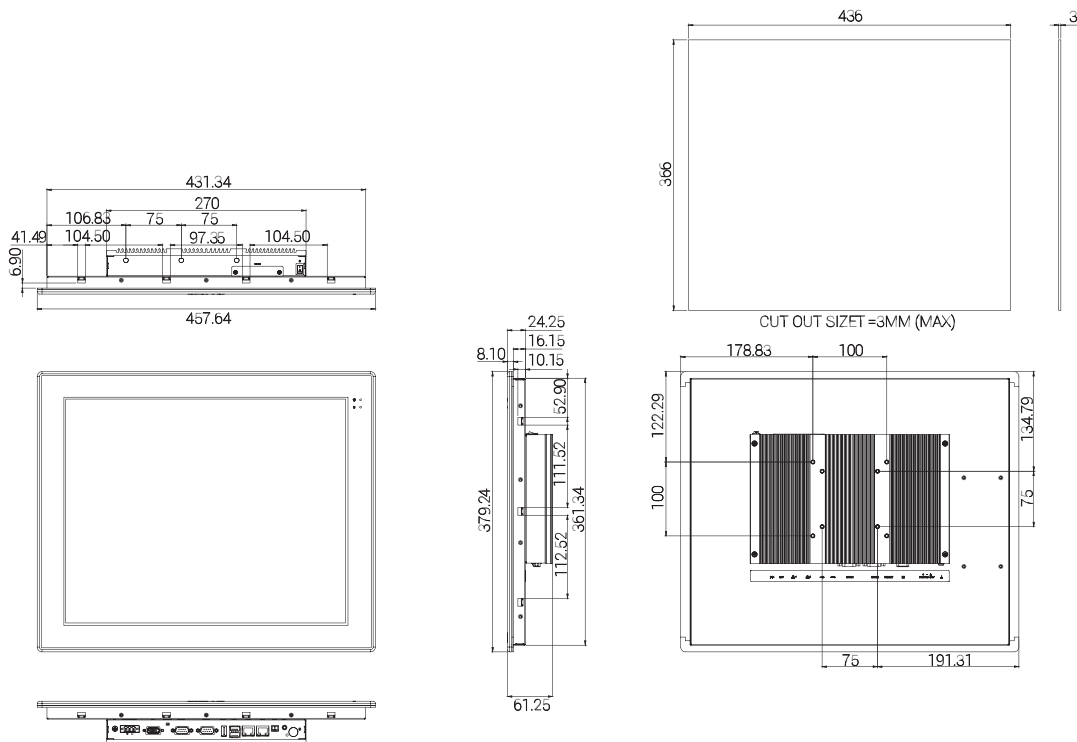
Ordering Information

Model	Part Number	Description
eTOP-EPC1940T	+71EPC1940TJ	19" TFT SXGA 4:3 Flush Panel PC with Intel® Celeron® J1900, up to 2.42GHz, Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM

IPC - High-end Panel PC

Heavy Industrial Panel PC

EXOR heavy Industrial Panel PC is equipped with powerful Intel® Processor, TFT LCD Panel with LED backlight, and user-friendly touch design.

EXOR Industrial Panel PC provides expansion slots for add-on boards in a IP66 heavy-duty aluminum front bezel and vibration-resistant, its rugged design of aluminum chassis is suitable for any harsh industrial environments.

Overview

All products are available in wide and flexible range of configurations. You will have the product that fits your needs.

All products have a robust mechanical construction that will suit the most demanding of applications.

Products can be configured with a different choice of CPU, RAM, disk and operating systems.

PC offered by EXOR International are the ideal system for running applications based on JMobile PC Runtime.

An application integrating HMI on a powerful hardware platform is ready in all cases where the embedded HMIs do not meet all requirements.

eTOP-IPC1040P - Technical Data

Panel
- LCD size: 10.1", 16:9
- Resolution: WXGA 1280 x 800
- Luminance: 300cd/m2
- Contrast ratio: 1300:1
- LCD color: 262K
- Viewing angle: 85 (U), 85 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 90%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

System
- CPU: onboard Intel® Celeron® Quad Core processor J1900, 2.0GHz, 2M L2 Cache (maximum frequency 2.42GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x External locked CFast socket
- 1 x Hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/ W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)
- Front LED indicator to show operating status

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- 2-pin remote power on/off switch
- Power switch
- Reset button

- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out audio jack

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 based-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 308 x 223 x 60.7mm
- Weight: 3.7Kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4)
- FCC class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
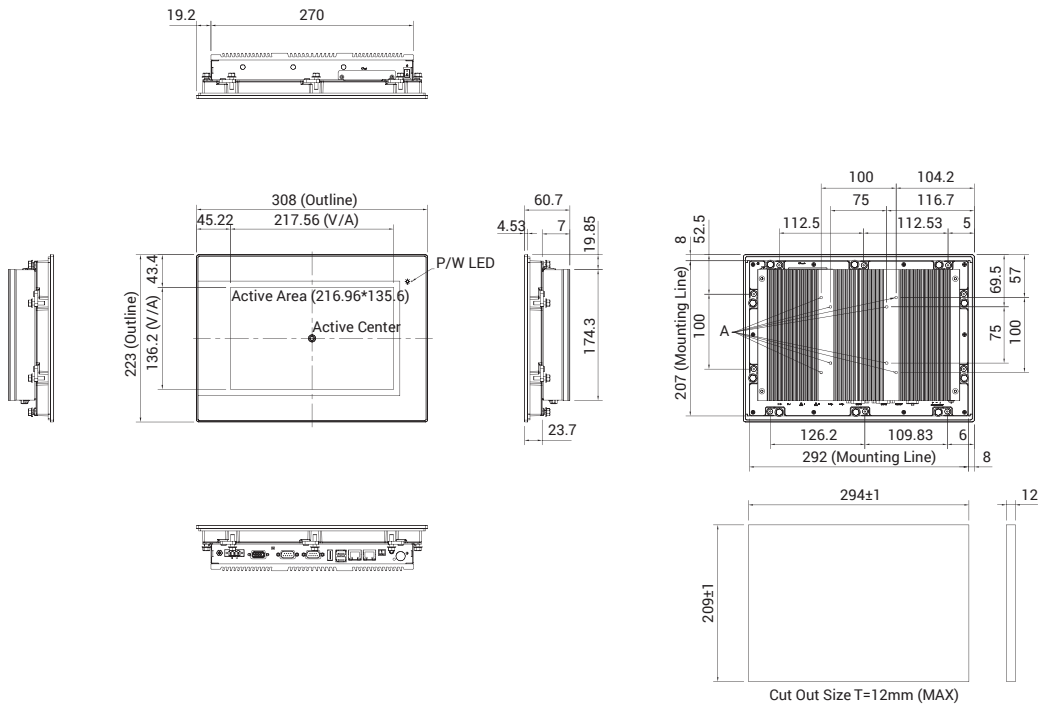
Ordering Information

Model	Part Number	Description
eTOP-IPC1040P	+72IPC1040P	10.1" TFT WXGA 16:9 Heavy Industrial Panel PC with Intel® Celeron® Quad Core Processor J1900, up to 2.42GHz, Multi-Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM

eTOP-IPC1640P - Technical Data

Panel
- LCD size: 15.6", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 400cd/m2
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

System
- CPU: onboard Intel® Celeron® Quad Core processor J1900, 2.0GHz, 2M L2 Cache (maximum frequency 2.42GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x External locked CFast socket
- 1 x Hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/ W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)
- Front LED indicator to show operating status

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0
- 2-pin remote power on/off switch
- Power switch

- Reset button
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out audio jack

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 based-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 417.4 x 312.4 x 63.75mm
- Weight: 6.4Kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4)
- FCC class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
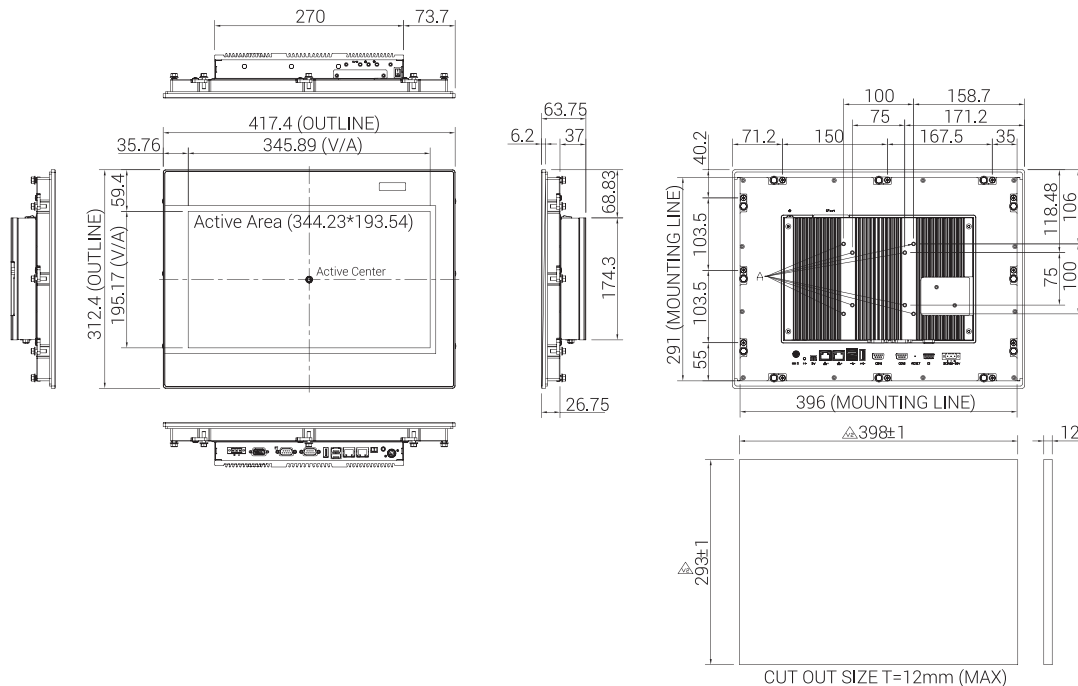
Ordering Information

Model	Part Number	Description
eTOP-IPC1640P	+72IPC1640P	15.6" TFT WXGA 16:9 Heavy Industrial Panel PC with Intel® Celeron® Quad Core Processor J1900, up to 2.42GHz, Multi-Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM

eTOP-IPC1840P - Technical Data

Panel
- LCD size: 18.5", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 300cd/m2
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

System
- CPU: onboard Intel® Celeron® Quad Core processor J1900, 2.0GHz,
- 2M L2 Cache (maximum frequency 2.42GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 8GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1x External locked CFast socket
- 1x Hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module or fieldbus card)
- Panel backlight control button: increase brightness/decrease brightness/backlight on/off
- Front logo LED indicator to show operating status

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1x Line-out
- USB: 2 x USB 2.0, 1 x USB 3.0

- 2 -pin remote power on/off switch
- Power switch
- Reset button
- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated
- Fieldbus: (protocol interface optional)

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out audio jack

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone 425C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 490.8 x 320.6 x 62.65mm
- Weight: 8.2Kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4)
- FCC class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
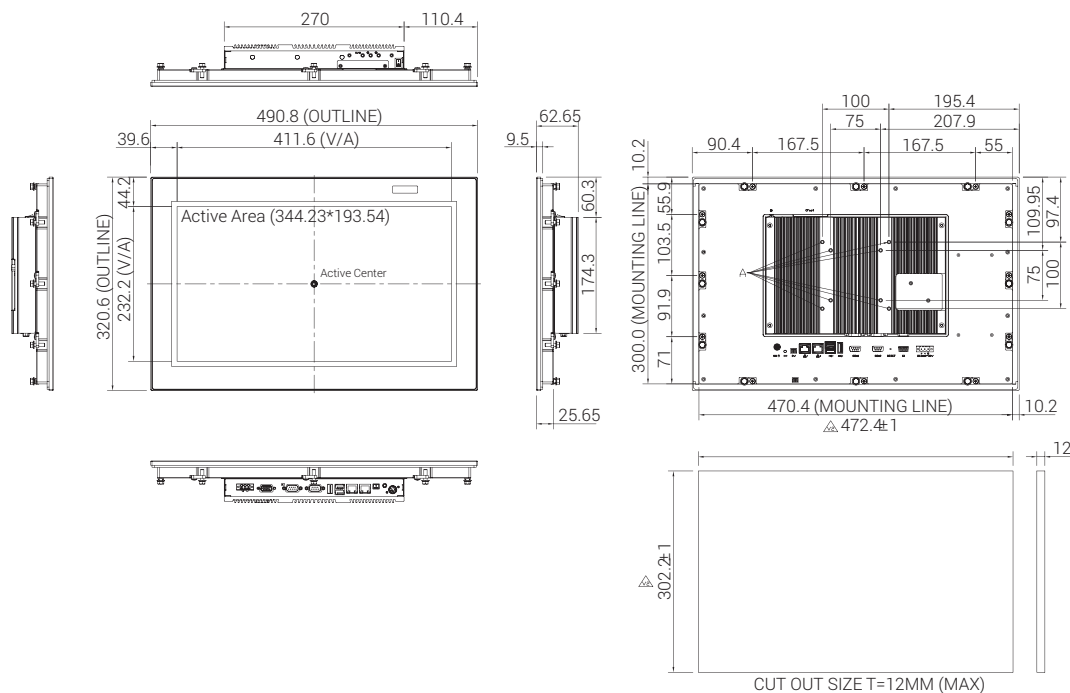
Ordering Information

Model	Part Number	Description
eTOP-IPC1840P	+72IPC1840P	18.5" TFT WXGA 16:9 Heavy Industrial Panel PC with Intel® Celeron® Quad Core Processor J1900, up to 2.42GHz, Multi-Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM and Fieldbus PortM and Fieldbus Port

eTOP-IPC2140P - Technical Data

Panel
- LCD size: 21.5", 16:9
- Resolution: Full HD 1920x1080
- Luminance: 300cd/m2
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

Touch
- Ten points P-Cap (Projected Capacitive Touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

System
- CPU: onboard Intel® Celeron® Quad Core processor J1900, 2.0GHz, 2M L2 Cache (maximum frequency 2.42GHz if turbo boost enabled)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 4GB DDR3L-1066/1333, non-ECC and un-buffered
- Storage device:
- 1 x external locked CFast socket
- 1 x hard drive bay: optional 1 x 2.5" SATA HDD or 1 x SATA DOM
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Expansion: 2 x mini-PCIe sockets (support optional Wi-Fi, 3.5G module)
- Front LED Indicator to show operating status

Rear I/O
- Ethernet: 2 x RJ45
- 2nd display VGA port: 1 x DB15
- Audio port: 1 x Line out
- USB: 2 x USB 2.0, 1 x USB 3.0
- 2-pin remote power on/ off switch
- Power switch
- Reset button

- COM #1: RS232/422/485 w/ 2.5kv isolated
- COM #2: RS232/422/485 w/ 2.5kv isolated

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out audio jack

Ethernet
- LAN chip: dual Intel® I210AT Gigabit LAN
- Ethernet interface: 10/100/1000 Based-Tx Ethernet compatible

Mechanical & Environment
- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~30VDC
- Power adapter: Optional AC to DC power adapter (+12V, 60W)
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 562.4x382.4x62.85mm
- Weight: 9.26Kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4)
- FCC Class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
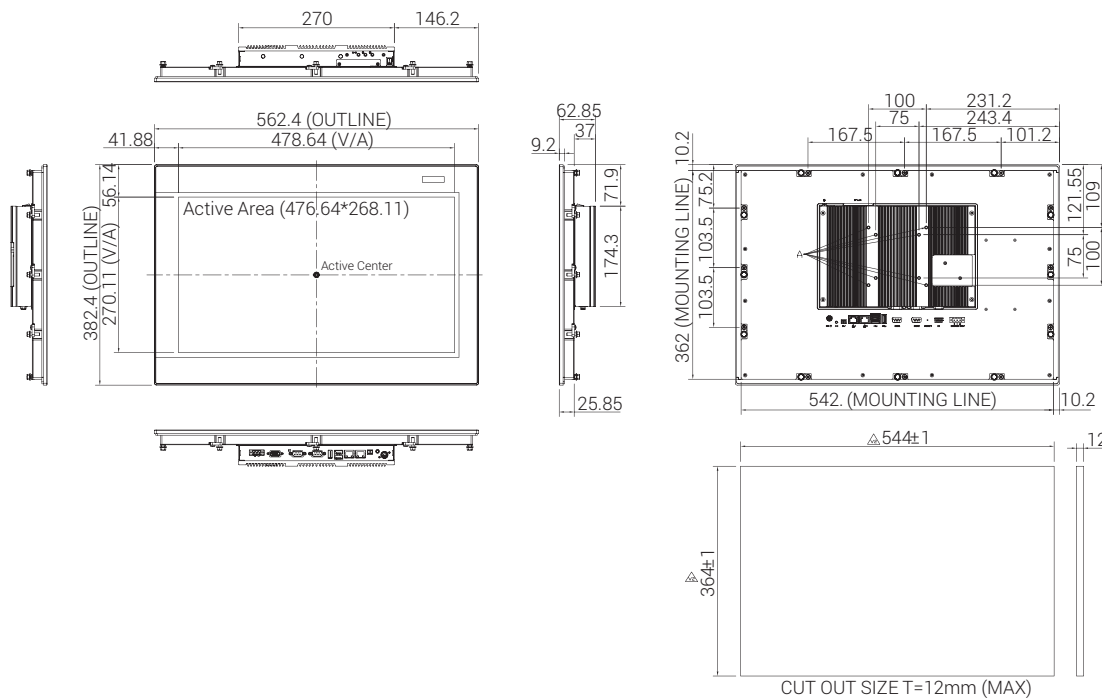
Ordering Information

Model	Part Number	Description
eTOP-IPC2140P	+72IPC2140P	21.5" TFT WXGA 16:9 Heavy Industrial Panel PC with Intel® Celeron® quad core processor J1900, up to 2.42GHz, Multi-Touch Screen, 8GB DDR3L, 3 x USB, 2 x COM

eTOP-IPC1670P - Technical Data

Panel
- LCD size: 15.6", 16:9
- Resolution: WXGA, 1366 x 768
- Luminance: 300cd/m²
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80(U), 80(D), 85(L), 85(R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Light transmission: 87%
- Interface: USB
- Anti-scratch surface: >= 7H hardness

System
- CPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency3.3GHz if turbo boost enabled)
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket, support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered
- Storage device:
- 1 x External locked CFast socket
- 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
- 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
- Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/ NVRAM/mSATA storage)
- 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
- 1 x PCI and 1 x PCIe x4 slots
- 2 x PCIe x4 slots
- 2 x PCI slots
- 1 x PCIe x16 slot

Rear I/O
- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort

[Front I/O]
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mlic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector
- Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

Top I/O
- COM#2 RS232/422/485 w/ 5V or 12V selection

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

Ethernet
- LAN chip: dual Intel® I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Fieldbus
- Two FBI Windows

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
- Power input: 12~30 VDC
- Power connector: 3-pin PHOENIX connector
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature: -10°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
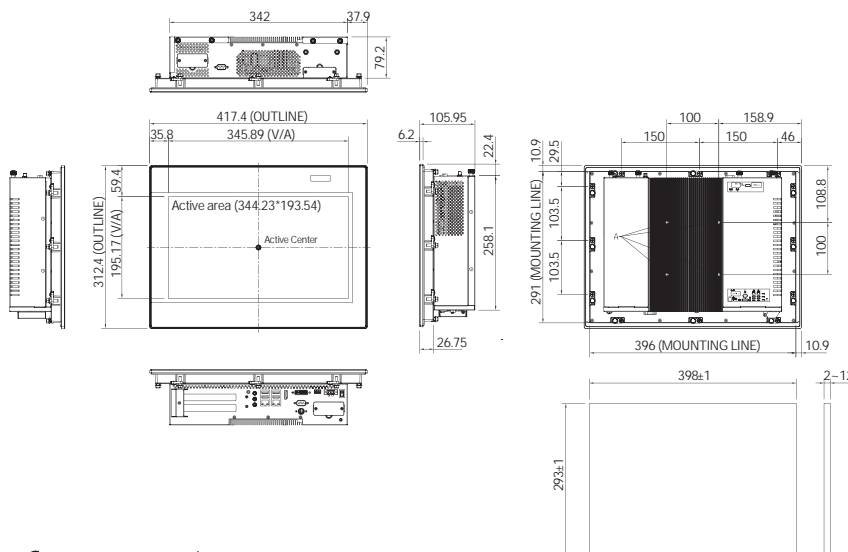
Dimension
- 417.4 x 312.4 x 105.95mm
- Weight: (barebone): 9.18kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4), FCC Class A

OS Support Lists
- Windows 7 32-bit and 64-bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 32-bit and 64-bit

Ordering Information

Model	Part Number	Description
eTOP-IPC1670P	+72IPC1670P	15.6" TFT WXGA 16:9 Heavy Industrial Panel PC with Intel® Celeron® Quad Core Processor J1900, up to 2.42GHz, Multi-Touch Screen, 4GB DDR3L, 3 x USB, 2 x COM

eTOP-IPC2170P - Technical Data

Panel
- LCD size: 21.5", 16:9
- Resolution: Full HD, 1920 x 1080
- Luminance: 300cd/m²
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89(U), 89(D), 89(L), 89(R)
- Backlight: LED

Touch (for eTOP-IPC2170P Series)
- Ten points P-Cap (projected capacitive touch)
- Light transmission: 87%
- Interface: USB
- Anti-scratch surface: >= 7H hardness

System
- CPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency3.3GHz if turbo boost enabled)
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket, support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered
- Storage device:
- 1 x External locked CFast socket
- 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
- 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)(for DC model only)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
- Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/NVRAM/mSATA storage)
- 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
- 1 x PCI and 1 x PCIe x4 slots
- 2 x PCIe x4 slots
- 2 x PCI slots
- 1 x PCIe x16 slot

Rear I/O
- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45

- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x MIic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector
- Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

Top I/O
- COM#2 RS232/422/485 w/ 5V or 12V selection

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

Ethernet
- LAN chip: dual Intel® I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Fieldbus
- Two FBI Windows

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
- Power input: 12~30 VDC
- Power connector: 3-pin PHOENIX connector
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
- Temperature:
- Operating temperature: -10°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
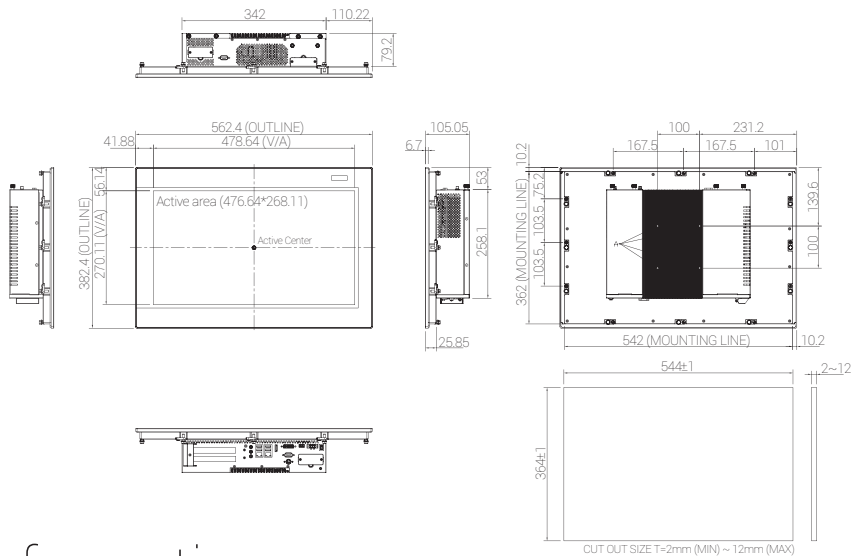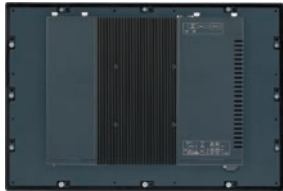
Dimension
- 562.4 x 382.4 x 105.05mm
- Weight: (barebone): 11.7kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4)
- FCC Class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit

Ordering Information

Model	Part Number	Description
eTOP-IPC2170P	+72IPC2170P	21.5" TFT Full HD 16:9 Heavy Industrial Panel PC 4th Generation Intel® Core™ i Processor

eTOP-IPC1680P Technical Data

Panel
- LCD size: 15.6", 16:9
- Resolution: HD (WXGA) 1366 x 768
- Luminance: 400cd/m2
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

System
- Support 6th generation Intel® CoreTM i5/i3 BGA type processor - Core TM i5-6300U, 3M Cache, up to 3.0GHz - CoreTM i3-6100U, 3M Cache, up to 2.3GHz (optional)
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 8GB DDR3L (default), support up to 16GB DDR3L-1866, non-ECC and un-buffered
- Storage device:
1 x M.22242B key socket: optional M.22242 storage
1 x Hard drive bay: optional 1 x 2.5" SATA HDD
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- Expansion: 1 x mini-PCIe sockets (support optional Wi-Fi module)
- Front LED indicator to show operating status

Rear I/O
- Ethernet: 2 x RJ45
- 2nd DisplayPort: 2 x DP1.2
- USB:2xUSB2.0,2xUSB3.0
- LED indicator: power/HDD/GPIO programmable LED

- Power button
- COM #1: RS232/422/485
- COM #2&3: RS232

Ethernet
- LAN chip: dual Intel® I210-AT Gigabit LAN
- Ethernet interface: 10/100/1000 based-Tx Ethernet compatible

Mechanical & Environment
- Color: black silver front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power:
Power input: 24 VDC
Power adapter: optional AC to DC power adapter (+24V, 60W)
- Vibration:
IEC 682-64 (w/HDD)
1 Grms@ sine, 5~500 Hz, 1hr/axis (HDD operating)
2 Grms@ sine, 5~500 Hz, 1hr/axis (SSD operating)
2.2 Grms@ randomcondition,5~500Hz,0.5hr/axis (non-operating)
- Shock:
IEC682-27
HDD:20G@wallmount,halfsine,11ms
- Temperature:
Operating temperature: 0 °C to 50 °C
Storage temperature: -20 °C to 75 °C
Operating humidity: 10% ~ 90% relative humidity, non-condensing
- Dimension: 417.6 x 312.6 x 81.95 mm
- Weight: 5.98 kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4)
- FCC class A

OS Support Lists
- Windows 10 64-bit
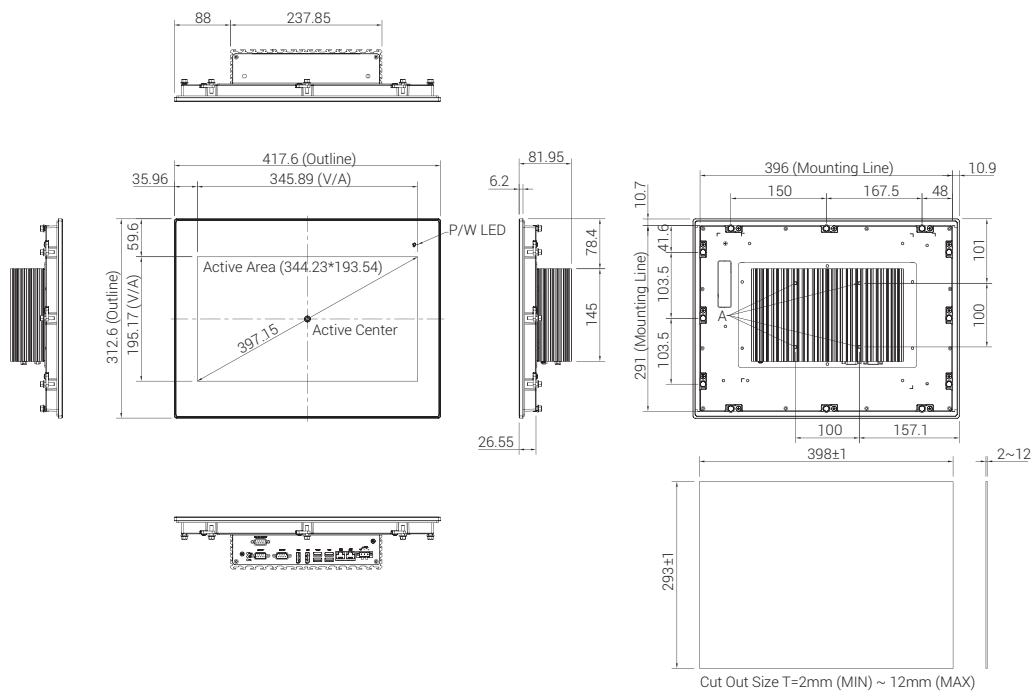
Ordering Information

Model	Part Number	Description
eTOP-IPC1680P	+72IPC1680P	15.6" TFT HD 16:9 Heavy Industrial Panel PC 6th Generation Intel® CoreTM i5-6300U, 2.40 GHz Multi-Touch Screen, 8GB DDR3L, 4 x USB, 3 x COM

eTOP-IPC2180P Technical Data

Panel
- LCD size: 21.5", 16:9
- Resolution: FHD 1920 x 1080
- Luminance: 250cd/m2
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

System
- Support 6th generation Intel® Core TM i5/i3 BGA type processor - Core TM i5-6300U, 3M Cache, up to 3.0 GHz - Core TM i3-6100U, 3M Cache, up to 2.3GHz (optional)
- CPU: onboard 6th generation Intel® CoreTM i5-6300U Processor, 2.40GHz
- BIOS: AMI BIOS
- System memory: 2 x 204-pin DDR3L SO-DIMM socket, 8GB DDR3L (default), support up to 16GB DDR3L-1866, non-ECC and un-buffered
- Storage device:
- 1x M.22242B key socket: optional M.22242 storage
- 1x Hard drive bay: optional 1 x 2.5" SATA HDD
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- Expansion: 1 x mini-PCIe sockets (support optional Wi-Fi module)
- Front LED indicator to show operating status

Rear I/O
- Ethernet: 2 x RJ45
- 2nd DisplayPort: 2 x DP1.2
- USB: 2x USB 2.0, 2x USB 3.0

- LED indicator: power/HDD/GPIO programmable LED
- Power button
- COM #1: RS232/422/485
- COM #2&3: RS232

Ethernet
- LAN chip: dual Intel® I210-AT Gigabit LAN
- Ethernet interface: 10/100/1000 based-Tx Ethernet compatible

Mechanical & Environment
- Color: black silver front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power:
- Powerinput:24VDC
- Power adapter: optional AC to DC power adapter (+24V, 60W)
- Vibration:
- IEC 682-64 (w/HDD)
- 1 Grms@ sine, 5~500 Hz, 1hr/axis (HDD operating)
- 2 Grms@ sine, 5~500 Hz, 1hr/axis (CFast operating)
- 2.2 Grms@ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 682-27
- HDD: 20 G @ wall mount, halfsine, 11 ms
- Temperature:
- Operating temperature: 0 °C to 50 °C
- Storage temperature: -20 °C to 75 °C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 562.4 x 382.4 x 80.55 mm
- Weight: 8.26 kg

Certifications
- CE (including EN61000-6-2/EN61000-6-4)   FCC class A

OS Support Lists
- Windows 10 64-bit
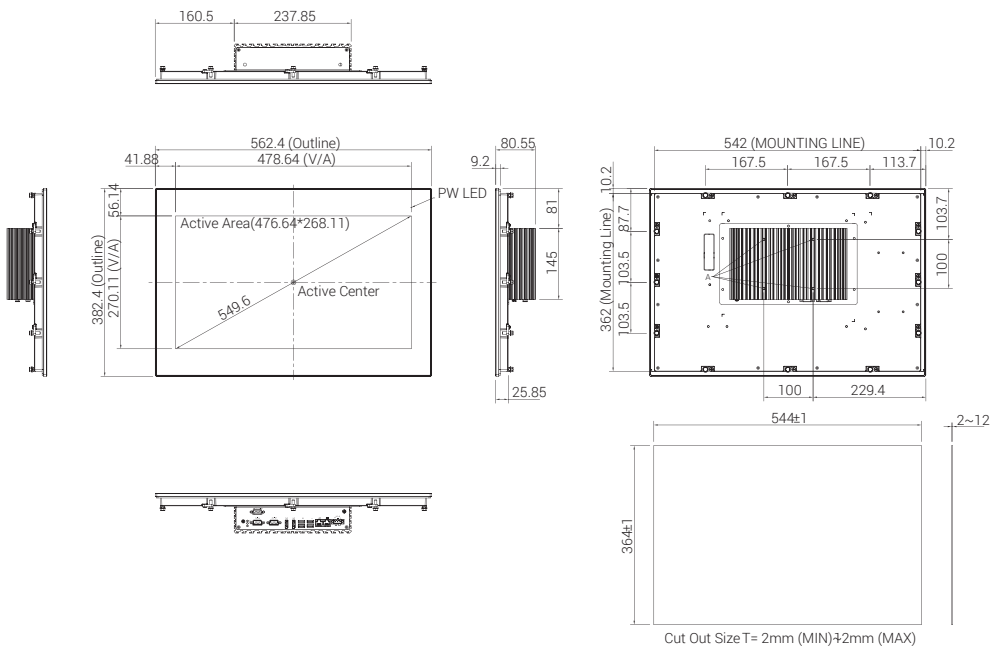
Ordering Information

Model	Part Number	Description
eTOP-IPC2180P	+72IPC2180P	21.5" TFT Full HD 16:9 Heavy Industrial Panel PC 6th Generation Intel® CoreTM i5-6300U, 2.40 GHz Multi-Touch Screen, 8GB DDR3L, 4 x USB, 3 x COM

exorint.com

eTOP-IPC1770T - Technical Data

Panel
- LCD size: 17", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m²
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

System
- CPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
  - Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
  - Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency 3.3GHz if turbo boost enabled)
  - Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
  - Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
  - Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
  - Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket, support up to 16GB DDR3/DDR3L 1333/1600, non-ECC and unbuffered
- Storage device:
  - 1 x External locked CFast socket
  - 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
  - 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
- Expansion:
  - 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/NVRAM/mSATA storage)
  - 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
  - 1 x PCI and 1 x PCIe x4 slots
  - 2 x PCIe x4 slots
  - 2 x PCI slots
  - 1 x PCIe x16 slot
- 1 x Front accessible USB 2.0

Rear I/O
- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mic-in
- USB: 4 x USB3.0
- 3-pin remote power on/off switch connector
- Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

Top I/O
- COM#2 RS232/422/485 w/ 5V or 12V selection

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

Ethernet
- LAN chip: dual Intel® I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

**Fieldbus**
- Two FBI Windows

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
- Power input: 12~30 VDC
- Power connector: 3-pin Phoenix connector
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature:
- Resistive: -10°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing (for eTOP-IPC1770T series, limits to be at 90% RH at max 50°C)
- Dimension: 451 x 375.5 x 105mm
- Weight: 9.6kg (barebone)

Certifications
- CE (including EN61000-6-2/EN61000-6-4), FCC Class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
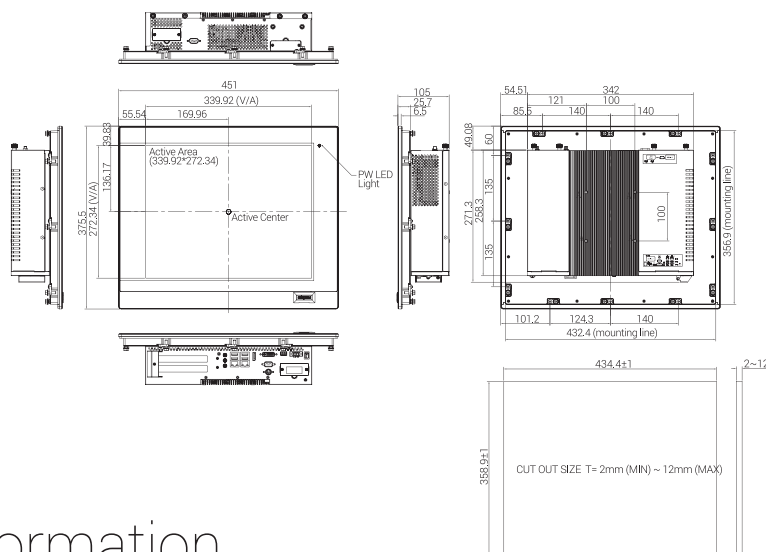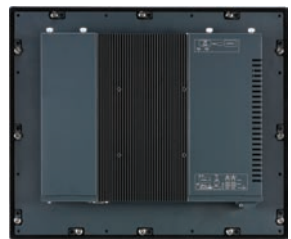
Ordering Information

Model	Part Number	Description
eTOP-IPC1770T	+72IPC1770T	17" TFT SXGA 4:3 Heavy Industrial Panel PC 4th Generation Intel® Core™ i Processor

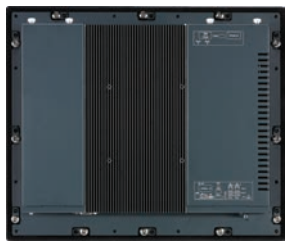# eTOP-IPC1570T - Technical Data

Panel
- LCD Size: 15", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 450cd/m²
- Contrast ratio: 800
- LCD color: 16.2M
- Viewing angle: 70 (U), 80 (D), 80 (L), 80 (R)
- Backlight: LED

Touch
- 5-wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB

System
- CPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency 3.3GHz if turbo boost enabled)
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket, support up to 16GB DDR3/ DDR3L 1333/1600, non-ECC and unbuffered
- Storage device:
- 1 x External locked CFast socket
- 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
- 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
- Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/NVRAM/mSATA storage)
- 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
- 1 x PCI and 1 x PCIe x4 slots
- 2 x PCIe x4 slots
- 2 x PCI slots
- 1 x PCIe x16 slot
- 1 x Front accessible USB 2.0

Rear I/O
- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45
- 2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mic-in
- USB: 4 x USB 3.0
- 3-pin remote power on/off switch connector
- Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

Top I/O
- COM#2 RS232/422/485 w/ 5V or 12V selection

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

Ethernet
- LAN chip: dual Intel® I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Fieldbus
- Two FBI Windows

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
- Power input: 12~30 VDC
- Power connector: 3-pin PHOENIX connector
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature
- Resistive: -20°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing (for eTOP-IPC1570T series, limits to be at 90% RH at max 50°C)
- Dimension: 400 x 330 x 104.9 mm
- Weight: 8.99kg (barebone)

Certifications
- CE (including EN61000-6-2/EN61000-6-4), FCC Class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
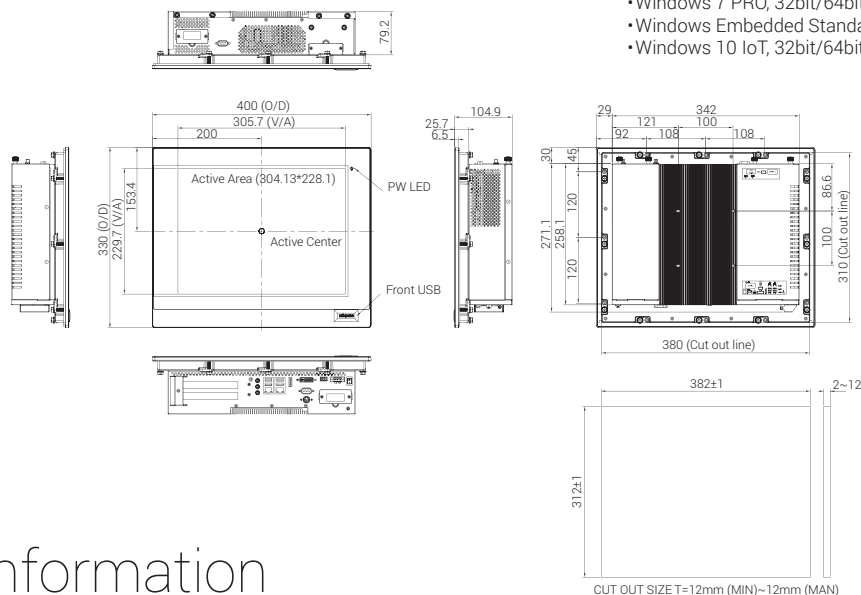
Ordering Information

Model	Part Number	Description
eTOP-IPC1570T	+72IPC1570T	15" TFT XGA 4:3 Heavy Industrial Panel PC 4th Generation Intel® Core™ i Processor

eTOP-IPC1970T - Technical Data

Panel
- LCD size: 19", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m²
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- 5-wire resistive (flush panel type)
- Light transmission: 80±3%
- Interface: USB

System
- CCPU (optional): support 4th gen. Intel® Core™ i processor family, LGA1150 socket type
- Core™ i5-4590T, Quad Core, 2.0GHz, 6M Cache (maximum frequency 3.0GHz if turbo boost enabled)
- Core™ i5-4570TE, Dual Core, 2.7GHz, 4M Cache (maximum frequency 3.3GHz if turbo boost enabled)
- Core™ i3-4350T, Dual Core, 3.1GHz, 4M Cache (no turbo boost)
- Core™ i3-4340TE, Dual, Core, 2.6GHz, 4M Cache (no turbo boost)
- Pentium® G3320TE, Dual Core, 2.3GHz, 3M Cache (no turbo boost)
- Celeron® G1820TE, Dual Core, 2.2GHz, 2M Cache (no turbo boost)
- BIOS: AMI BIOS
- System chipset: Intel® Q87 PCH
- System memory (optional): 2 x 204-pin DDR3/DDR3L SO-DIMM socket, support up to 16GB DDR3/ DDR3L 1333/1600, non-ECC and unbuffered
- Storage device:
- 1 x External locked CFast socket
- 1 x mini-PCIe w/o SIM card holder slot to support mSATA storage
- 1 x Hard drive bay: support 1 x 2.5" SATA HDD/SSD (optional)
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature and voltage
- Expansion:
- 2 x mini-PCIe sockets (support optional Wi-Fi or 3.5G module/NVRAM/mSATA storage)
- 2 x Expansion slots for add-on PCI or/and PCIe cards (optional)
- 1 x PCI and 1 x PCIe x4 slots
- 2 x PCIe x4 slots
- 2 x PCI slots
- 1 x PCIe x16 slot
- 1 x Front accessible USB 2.0

Rear I/O
- 1 x PS2 for keyboard/mouse
- Ethernet: 2 x RJ45

2nd/3rd display: additional independent DisplayPort: 1 x DVI-I (DVI-D + DVI-A) and 1 x DisplayPort
- Audio port: 1 x Line-out; 1 x Line-in; 1 x Mic-in
- USB: 4 x USB 3.0
- 3-pin remote power on/off switch connector
- Reset button
- COM#1: RS232/422/485 w/ 5V or 12V selection
- ATX power switch

Top I/O
- COM#2 RS232/422/485 w/ 5V or 12V selection

Audio
- HD codec: Realtek ALC886-GR
- Audio interface: Line-out/Line-in/Mic-in audio jack

Ethernet
- LAN chip: dual Intel® I210IT Gigabit LAN
- Ethernet interface: 10/100/1000 Base-Tx Ethernet compatible

Fieldbus
- Two FBI Windows

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power:
- Power input: 12~30 VDC
- Power connector: 3-pin PHOENIX connector
- Vibration:
- IEC 68 2-64 (w/ HDD)
- 1Grms @ sine, 5~500Hz, 1hr/axis (HDD operating)
- 2Grms @ sine, 5~500Hz, 1hr/axis (CFast operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock:
- IEC 68 2-27
- HDD: 20G @ wall mount, half sine, 11ms
- Operating temperature:
- Resistive: -10°C to 50°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing (for eTOP-IPC1970T series, limits to be at 90% RH at max 50°C)
- Dimension: 470 x 400 x 104.9 mm
- Weight: 10.25kg (barebone)

Certifications
- CE (including EN61000-6-2/EN61000-6-4)
- FCC Class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
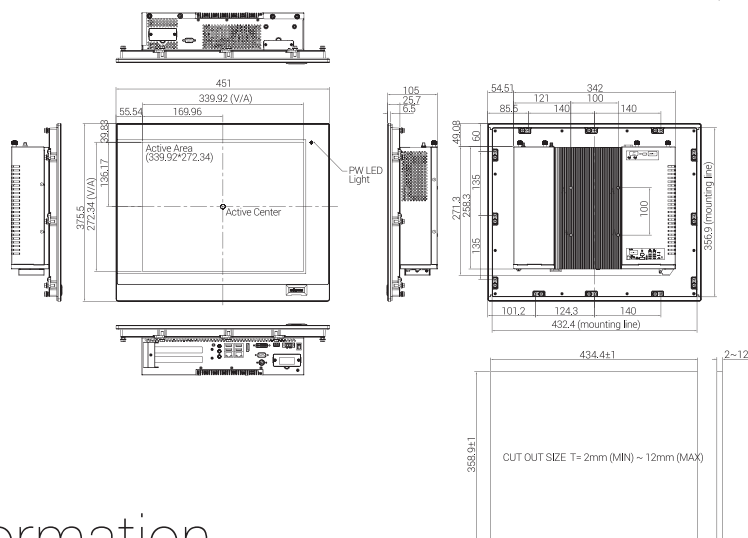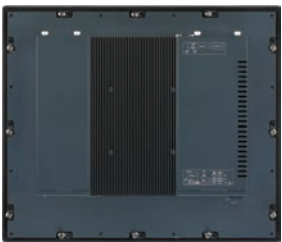
Ordering Information

Model	Part Number	Description
eTOP-IPC1970T	+72IPC1970T	19" TFT SXGA 4:3 Heavy Industrial Panel PC 4th Generation Intel® Core™ i Processor

eCC / eCCF - Compact box computers

Compact Series Fanless Computer

Powered by Intel®, these compact box computers feature significant I/O design.

The compact series fanless computer is ideal for space-critical and simple or complex applications, such as data acquisition, digital signage, gate control, self-service system, Kiosk, and POS applications.

Overview

All products are available in wide and flexible range of configurations. You will have the product that fits your needs.

All products have a robust mechanical construction that will suit the most demanding of applications.

Products can be configured with a different choice of CPU, RAM, disk and operating systems.

PC offered by EXOR International are the ideal system for running applications based on JMobile PC Runtime.

An application integrating HMI on a powerful hardware platform is ready in all cases where the embedded HMIs do not meet all requirements.

eCC51 Technical Data

CPU Support
- Default: onboard Intel® Celeron® processor N3350 Dual Core, 2.4GHz
- Option: support Intel Atom® E3900 processor family from Dual Core
- E3930 to Quad Core E3950 (by request)

Main Memory
- 1 x DDR3L SO-DIMM socket, support DDR3L 1866 8GB RAM max., un-buffered and non-ECC

Display Option
- 1 x DP display

I/O Interface-Front
- ATX power on/off switch
- 1 x Storage/2 x GPO programmable LED
- 1 x SIM card holder
- 2 x Intel® I211AT GbE LAN ports; support WoL, teaming and PXE
- 1 x DP display output
- 2 x USB 2.0
- 2 x USB 3.0
- 3 x Antenna holes for optional Wi-Fi/3.5G antenna
- I/O Interface-Rear
- 3 x DB9 for COM1 & COM2 & COM3
 - COM1/COM2: full RS232 signal
 - COM3: RS422/485 auto flow control
- 1 x Line-out
- Support 12V/24V DC input

I/O Interface - Internal
- 4 x GPI and 4 x GPO (programmable to GPI or GPO)
- 1 x DB9, only support RS232, Tx/Rx/GND single

Storage Device
- Onboard 16GB EMMC, max up to 32G by request
- Optional M.2 B, BM key 2242 module

Expansion Slot
- 1 x mini-PCIe socket for optional Wi-Fi/3.5G module and 2 x M.2 slot for optional WiFi/Bluetooth and LTE modules

Power Requirements
- Power input: 12V/24V DC +/-10%
- 1 x Optional 24V, 60W power adapter

Support OS
- Linux Kernel version 4.1 with 16GB eMMC
- Windows 10 IoT Enterprise with 32GB eMMC

Dimensions
- 162mm (W) x 26mm (H) x 150mm (D) without wall-mount bracket

Construction
- Metal chassis with fanless design

Environment
- Operating temperature:
- Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 75°C
- Relative humidity: 10% to 95% (non-condensing)
- Shock protection:
- M.2/EMMC: 50G, half sine, 11ms, IEC60068-27
- Vibration protection w/M.2 or EMMC condition:
- Random: 2Grms @ 5~500 Hz, IEC60068-2-64
- Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications
- CE
- FCC Class A

mini-PCIe	Configuration	USB	PCIe	SATA	3.5G/4G	WiFi/Bluetooth	Storage
Mini_card1	Full size	v	v	N/A	Support	Support	N/A

M.2	Configuration	USB	PCIe	SATA	3.5G/4G	WiFi/Bluetooth	Storage
M.2_Key_A1	A, AE key 2230	v	v	N/A	N/A	N/A	N/A
M.2_Key_B1	B, BM key 2242/3042	v (3042)	N/A	v (2242)	Support (3042)	N/A	Support (2242)
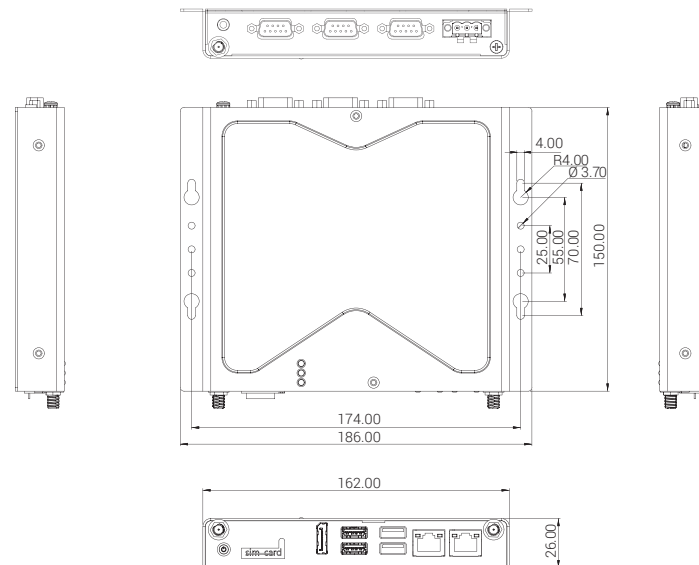
Ordering Information

Model	Part Number	Description
eCC51	+70ECC51	Intel® Celeron® Processor N3350 Dual Core Fanless System

eCC105U Technical Data

CPU Support
· Onboard Intel® Celeron® processor J1900 quad core, 2.42 GHz

Main Memory
· 1x DDR3L SO-DIMM socket, support DDR3L 1066/1333 8GB RAM max., un-buffered and non-ECC

Display Option
· Dual independent display
- HDMI and DVI-I
- HDMI and VGA (via DVI-I to VGA converter)

I/O Interface-Front
· ATX power on/off switch
· 1x Power status/1 x HDD access/1 x battery low/
· 1x programing LEDs
· 2x Intel® I210AT GbE LAN ports; support WoL, teaming and PXE
· 1x HDMI
· 1x USB 3.0 (900mA per each)
· 2x USB 2.0 (500mA per each)
· 1x DB9 for COM1 support RS232/422/485 with auto flow control
· Jumper-free setting on RS232/422/485
· 1x 2-pin DC input, support +9 to 30VDC input

I/O Interface - Rear
· 1 x Remote power on/off switch
· DVI-I display output
· 1x DB9 for COM2, support RS232/422/485 with auto flow control
· Jumper-free setting on RS232/422/485
· 2x DB9 for COM3 & COM4 support RS232 only
· 1x Mic-in & 1x Line-out
· 2x Antenna holes for optional Wi-Fi/3.5G antenna
· 1x Optional I/F for optional mini-PCIe Wi-Fi/3.5G

I/O Interface - Internal
· 4x G Pland 4 GPO (5V, TTL type)

Storage Device
· 1x M.2, support B & B+M key module (2242)

· 1x 2.5" HDD (SATA 2.0)

Expansion Slot
· 1 x mini-PCIe socket for optional Wi-Fi/3.5G

Power Requirement
· Power input: +9VDC to +30VDC
· 1x Optional 24V, 60W power adapter

Support OS
· Windows7, 32-bit/64-bit
· Windows Embedded Standard 7, 32-bit/64-bit
· Windows Embedded Compact 7, 32-bit
· Windows 10 IoT Enterprise,64-bit
· Linux Kernel version 3.8.0

Dimensions
· 185mm (W) x 131mm (D) x 54mm (H) without wall-mount bracket

Construction
Aluminum and metal chassis with fanless design

Environment
· Operating temperature Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
· Storage temperature: -30°C to 85°C
· Relative humidity: 10% to 95% (non-condensing)
· Shock protection
- HDD:20G,halfsine, 11ms, IEC 60068-2-27
- M.2:50G, halfsine, 11ms, IEC 60068-2-27
· Vibration protection w/HDD condition
- Random: 0.5 Grms @ 5~500 Hz, IEC 60068-2-64
- Sinusoidal: 0.5 Grms @ 5~500 Hz, IEC 60068-2-6
· Vibration protection w/M.2 & SSD condition
- Random: 2Grms @ 5~500 Hz, IEC 60068-2-64
- Sinusoidal: 2Grms @ 5~500 Hz, IEC 60068-2-6

Certifications
· CE
· FCC Class A
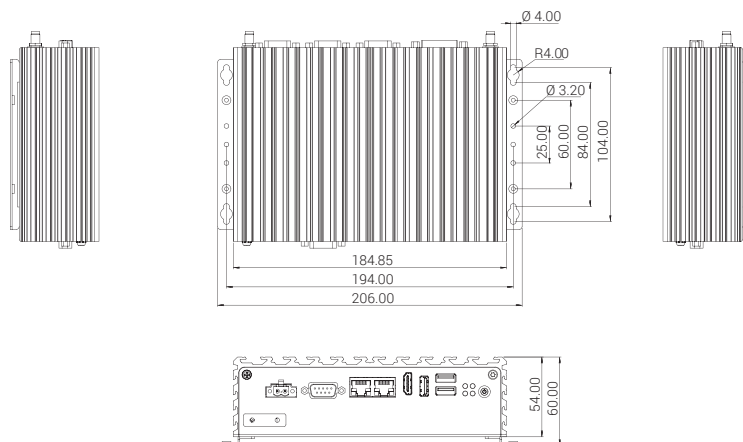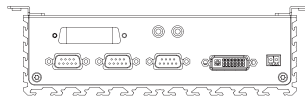
Ordering Information

Model	Part Number	Description
eCC105U	+70ECC105U	Intel® Celeron® Processor J1900 Quad Core Fanless System

eCC106 - Technical Data

CPU Support
- Onboard Intel® Pentium® Quad Core processor N3710, 2M Cache, 1.6GHz

Main Memory
- 1 x DDR3L SO-DIMM socket, support DDR3L 1600 8GB RAM max., un-buffered and non-ECC

Display Option
- 1 x HDMI + 1 x DVI-D + 1 x DP display port

I/O Interface-Front
- ATX power on/off switch
- 1 x Power status/1 x HDD access/1 x battery low/1 x programing/4 x Tx/Rx LEDs
- 2 x Intel® I210AT GbE LAN ports; support WoL, teaming and PXE
- 1 x HDMI + 1x DVI-D display output
- 4 x USB 3.0 (900mA per each)
- 1 x 3-pin DC input, support +9 to 30VDC input

I/O Interface - Rear
- 1 x DisplayPort
- 1 x SIM card holder
- 1 x External CFast socket
- 2 x DB9 for RS232/422/485 with auto flow control (COM1 and COM2)
- 2 x DB9 for RS232 (COM3 and COM4)
- 2 x Antenna holes for optional Wi-Fi/3.5G antenna
- 1 x Remote power on/off switch
- 1 x Optional I/F for optional mini-PCIe Wi-Fi/3.5G/LTE/ NEXCOM's automation module output

I/O Interface - Internal
- 4 x GPI and 4 x GPO (5V, TTL type)

Storage Device
- 1 x 2.5" HDD (SATA 3.0)

Expansion Slot
- 1 x mini-PCIe socket for optional Wi-Fi/4G LTE/3.5G modules

Power Requirement
- Power input: +9 to 30 VDC
- 1 x Optional 24V, 60W power adapter

Dimensions
- 185mm (W) x 131mm (D) x 54mm (H) without wall-mount bracket

Construction
- Aluminum chassis with fanless design

Environment
- Operating temperature:
- Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -30°C to 85°C
- Relative humidity: 10% to 95% (non-condensing)
- Shock protection:
  - HDD: 20G, half sine, 11ms, IEC60068-27
  - CFast: 50G, half sine, 11ms, IEC60068-27
- Vibration protection w/ HDD condition:
  - Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6
- Vibration protection w/ CFast & SSD condition:
  - Random: 2Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications
- CE
- FCC Class A

Support OS
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
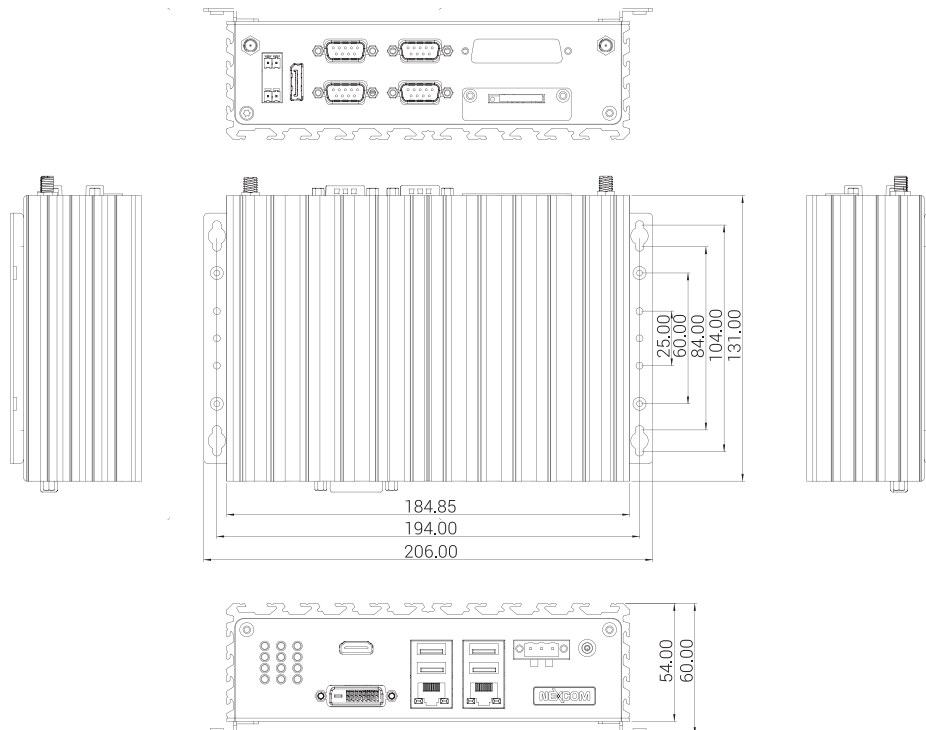
Ordering Information

Model	Part Number	Description
eCC106	+70ECC106	Intel® Pentium® processor N3710 Quad Core, 1.6GHz fanless system

eCC107 Technical Data

CPU Support
• Onboard Intel Atom® x5-E3930 Dual Core processor, 1.80 GHz, 2M Cache

Main Memory
• 1 x DDR3L SO-DIMM socket, support DDR3L 1866 8GB RAM max., un-buffered and non-ECC

Display Option
• Dual independent display: DVI-D + DP

I/O Interface-Front
• ATX power on/off switch
• LED indicator: power status, HDD access, RTC battery low, Tx/Rx, GPO programmable LEDs
• 2 x DB9 for RS232/422/485 with auto flow control
• 1 x External M.2 socket support B, B+M key module
• 1 x SIM card holder
• 1 x Optional I/F opening for optional function output or module interface use

I/O Interface-Rear
• 1 x Display port
• 1 x DVI-D port
• 4 x USB 3.0 ports (900mA per each)
• 2 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
• 1 x Line-out and 1 x Mic-in
• 2 x Antenna holes for optional Wi-Fi/3.5G antenna
• 1 x 3-pin DC input, support +9 to 30VDC input
• 1 x 3-pin remote power on/off switch

I/O Interface - Internal
• 4 x GPI and 4 x GPO (5V, TTL type)

Storage Device
• 1 x 2.5" HDD (SATA 3.0)
• 1 x M.2, support B, B+M key module

Expansion Slot
• 1 x mini-PCIe socket support optional Wi-Fi/4G LTE/3.5G modules

Power Requirements
• Power input: +9 to 30 Vdc
• 1 x Optional 24V, 60W power adapter

Dimensions
• 185mm (W) x 131mm (D) x 54mm (H) without wall-mount bracket

Construction
• Aluminum chassis with fanless design

Environment
• Operating temperature: Ambient with air flow: -20°C to 70°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
• Storage temperature: -20°C to 80°C
• Relative humidity: 95% at 40°C
• Shock protection:
HDD: 20G @ wall mount, half sine, 11ms(operation), IEC60068 2-27
M.2: 50G @ wall mount, half sine, 11ms(operation) , IEC60068 2-27
• Vibration protection w/ HDD condition:
Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6
• Vibration protection w/ M.2 & SSD condition:
Random: 2Grms @ 5~500 Hz, IEC60068-2-64
Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications
• CE approval - EN61000-6-2 - EN61000-6-4
• FCC Class A

Support OS
• Windows 10 IoT Enterprise, 64-bit
• Linux Kernel version 4.1

optional specification by request
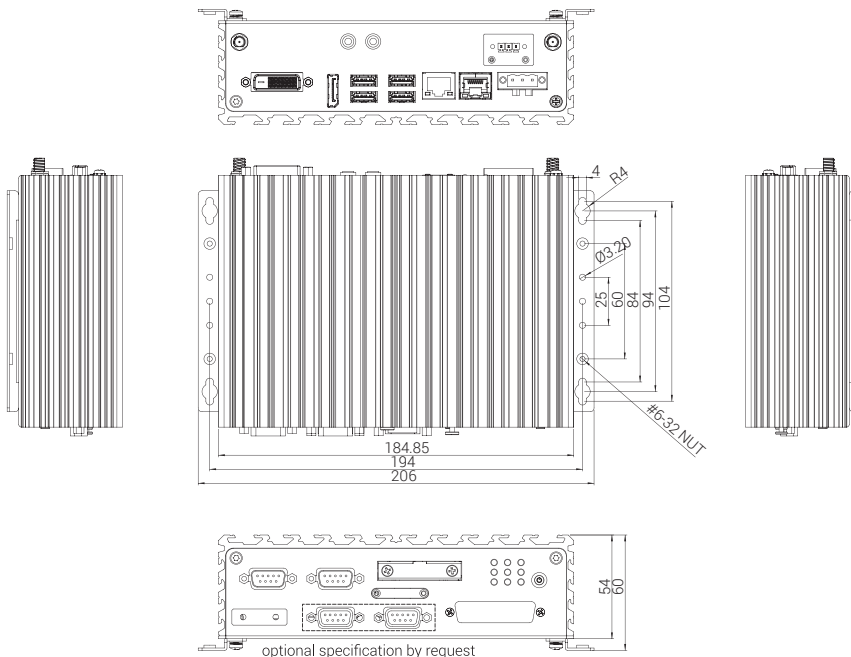
Ordering Information

Model	Part Number	Description
eCC107	+70ECC107	Intel Atom® x5-E3930 Dual Core Fanless System

exorint.com

eCC3800E - Technical Data

CPU Support
- Support 6th generation Intel® Core™ i7/i5/i3 LGA socket type embedded processor
  - Core™ i7-6700TE, Quad Core, 2.4GHz, 8M Cache
  - Core™ i5-6500TE, Quad Core, 2.3GHz, 6M Cache
  - Core™ i3-6100TE, Dual Core, 2.7GHz, 4M Cache
  - Intel® Pentium® Processor G4400TE 2.4GHz, 3M Cache
  - Intel® Celeron® Processor G3900TE 2.3GHz, 2M Cache
- Turbo-boost disabled by default

Main Memory
- 2 x DDR4 SO-DIMM socket, support up to 16GB with un-buffered an non-ECC

Display Option
- Three independent display
  - HDMI + DP+ DVI-D
- Dual independent display
  - HDMI + DP
  - HDMI + DVI-D
  - DP + DVI-D

Front I/O Interface Status LEDs
- 3 x LAN active LEDs
- 2 x GPO status/COM1/2 TX/RX LEDs
- 1 x HDD access LEDs

Front I/O Interface
- 1 x ATX power on/off switch
- 1 x DP
- 1 x Line-out and 1 x Mic-in
- 2 x Antenna holes
- 1 x External M.2 socket
- 1 x SIM card holder

Rear I/O Interface
- 2 x DB9 for COM1 & COM2
  - COM1: RS232/422/485 auto flow control
  - COM2: RS232/422/485 auto flow control
- 4 x USB 3.0 ports (900mA per each)
- 2 x USB 2.0 ports (500mA per each)
- 1 x DVI-D port
- 1 x HDMI port
- 3 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
- 1 x 2-pin remote power on/off switc
- +9V to 30V DC input

Storage Device
- 1 x External M.2 SATA 3.0 (M-key 2242) socket

- 1 x mSATA (SATA 3.0)
- 1 x 2.5" HDD (SATA 3.0)

Expansion Slot
- One PCIe x4 expansion slot
  - Add-on card length: 169mm max.
  - Power consumption: 10W/slot max.
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/mSATA/
- Fieldbus

Power Requirements
- AT/ATX power mode (default: ATX power mode)
- Power input: +9 to +30V DC
- Power adapter: optional AC to DC power adapter (24VDC, 120W)

Dimensions
- 215 mm(W) x 272mm (D) x 93mm (H) without wall mount bracket (8.5" x 10.7" x 3.7")

Construction
- Aluminum and metal chassis with fanless design

Environment
- Operating temperature:
- Ambient with air flow: -5°C to 55° (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 85°C
- Relative humidity: 10% to 93% (non-condensing)
- Shock protection:
  - HDD: 20G, half sine, 11ms, IEC60068-27
  - M.2: 50G, half sine, 11ms, IEC60068-27
- Vibration protection with HDD condition:
  - Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6
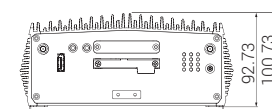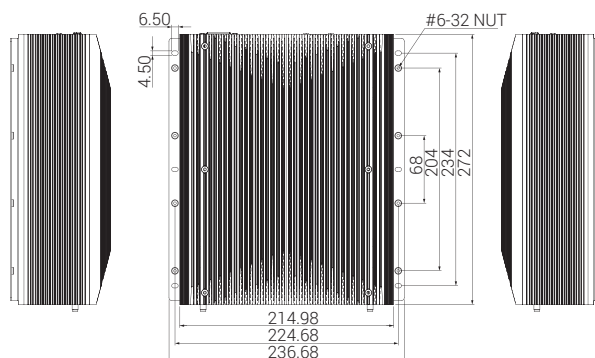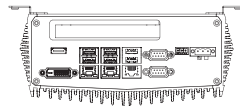
Certifications
- CE approval- EN61000-6-2- EN61000-6-4
- FCC Class A

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit

Weight Information
- Gross weight: 5.9 kg
- Net weight: 4.5 kg

Ordering Information

Model	Part Number	Description
eCC3800E	+70ECC3800E	6th Generation Intel® Core™ i7/i5/i3 LGA Fanless System with Expansion

eCC3800E-H110 Technical Data

CPU Support
- Support 6th generation Intel® CoreTM i7/i5/i3 LGA socket type embedded processor
- CoreTMi7-6700TE,QuadCore, 2.4GHz, 8M Cache
- CoreTMi5-6500TE, QuadCore, 2.3GHz,6M Cache
- CoreTMi3-6100TE, DualCore, 2.7GHz, 4M Cache
- Intel® Pentium® Processor G4400TE 2.4GHz, 3MCache
- Intel® Celeron® Processor G3900TE 2.3GHz, 2MCache
- Turbo-boost disabled by default

Main Memory
- 2 x DDR4 SO-DIMM socket, support up to 32GB with un-buffered and non-ECC

Display Option
- Two independent display - HDMI+DVI-D
- Front I/O Interface Status LEDs
- 2 x LAN active LEDs
- 2 x GPO status/COM1/2 TX/RX LEDs
- 1 x HDD access LEDs

Front I/O Interface
- 1 x ATX power on/o switch
- 2 x USB 2.0 ports (500mA per each)
- 1 x Line-out and
- 1 x Mic-in
- 2 x Antenna holes
- 1 x SIM card holder

Rear I/O Interface
- 2x DB9 for COM1 & COM2
- COM1:RS232/RS422/RS485
- COM2:RS232/RS422/RS485
- 4 x USB 3.0 ports (900mA per each)

- 1 x DVI-D port
- 1 x HDMI port
- 2 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
- 1 x 2-pin remote power on/o switch
- +9V to 30V DC input
- Storage Device
- 1 x 2.5" HDD (SATA 3.0)
- 1 x mSATA (internal mini-PCIe socket)

Expansion Slot
- One PCIe x4 expansion slot
- Add-oncardlength:169mmmax.
- Powerconsumption:10W/slotmax.
- 2 x Internal mini-PCIe socket support optional Wi-Fi/3.5G/ mSATA/ Fieldbus

Power Requirements
- AT/ATX power mode (default: ATX power mode)
- Power input: +9 to +30V DC
- Power adapter: optional AC to DC power adapter (24V DC, 120W)

Dimensions
- 215 mm(W) x 272mm (D) x 93mm (H) without wall mount bracket (8.5" x 10.7" x 3.7")

Construction
- Aluminum and metal chassis with fanless design

Environment
- Operating temperature: Ambient with air flow: -5°C to 55° (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 85°C
- Relative humidity: 10% to 93% (non-condensing)
- Shock protection:
- HDD:20G,halfsine,11ms,IEC60068-2-27
- Vibration protection with HDD condition:
- Random:0.5Grms@5~500Hz,IEC60068-2-64
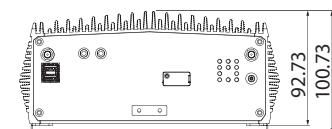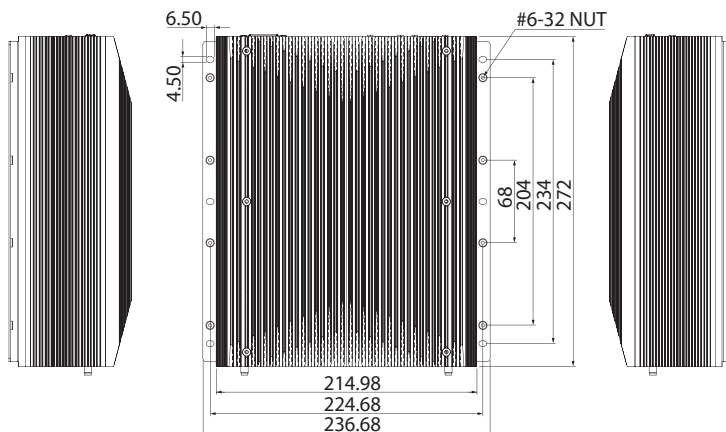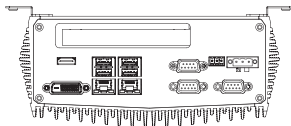- Sinusoidal:0.5Grms@5~500Hz,IEC60068-2-6

Certifications
- CE approval
- EN61000-6-2
- EN61000-6-4
- FCC Class A
- UL

OS Support Lists
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit

Weight Information
- Gross weight: 5.9kg
- Net weight: 4.5kg

6.50
4.50
#6-32 NUT
68
204
234
272
214.98
224.68
236.68
92.73
100.73

Ordering Information

Model	Part Number	Description
eCC3800EH110	+70ECC3800EH110	6th Generation Intel Core i7/i5/i3 LGA Fanless system with H110 chipset

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eCCF105 - Technical Data

CPU Support
- Onboard Intel® Atom™ x5-E3930 processor Dual Core 1.8GHz

Main Memory
- On-board type 4GB DDR3L RAM
  - Un-buffered and non-ECC

Display Output
- 1 x HDMI display

I/O Interface-Front
- 2 x Intel® I210IT GbE LAN ports; support WoL, teaming and PXE
- 4 x USB 3.0 (900mA)
- 1 x External SD card slot (data storage only)
- 1 x Power/1x HDD access LEDs
- 1 x Battery low/1x GP0 programming LED
- 2 x Tx/Rx LEDs
- 1 x ATX power on/off switch

I/O Interface-Top
- 1 x Remote switch/1 x S3
- 1 x SIM card slot
- 1 x RTC battery socket

I/O Interface-Bottom
- 2 x DB9, support RS232/422/485 with Auto Flow Control
- 1 x Optional DB9, support 4 x GPI and 4 x GPO

Internal I/O Interface
- 1 x USB2.0, 500mA max.
- 1 x COM3, pin header, RS232 with Tx/Rx/RTS/CTS signal only
- 1 x COM4, pin header, RS232 with Tx/Rx/RTS/CTS signal only

- 4 x GPI and 4 x GPO (General purpose I/O), TTL 5V

Storage Device
- Onboard 16GB eMMC
- Optional mSATA module

Power Requirement
- Power input: typical +24VDC ±20%
- 1 x Optional 24V, 60W power adapter

Dimensions
- 46.2mm (W) x 100mm (D) x 120mm (H)

Construction
- Aluminum and Metal Chassis with front access design

Environment
- Operating temperature: Ambient with air flow: -10°C to 60°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 75°C
- Relative humidity: 10% to 93% (non-condensing)
- Shock protection:
  - mSATA/eMMC: 50G, half sine, 11ms, IEC60068-27
- Vibration protection w/ mSATA or eMMC condition:
  - Random: 2Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 2Grms @ 5~500 Hz, IEC60068-2-6

Certifications
- CE approval
  - EN61000-6-2
  - EN61000-6-4
- FCC Class A

Support OS
- Windows 10 IoT , 32bit/64bit
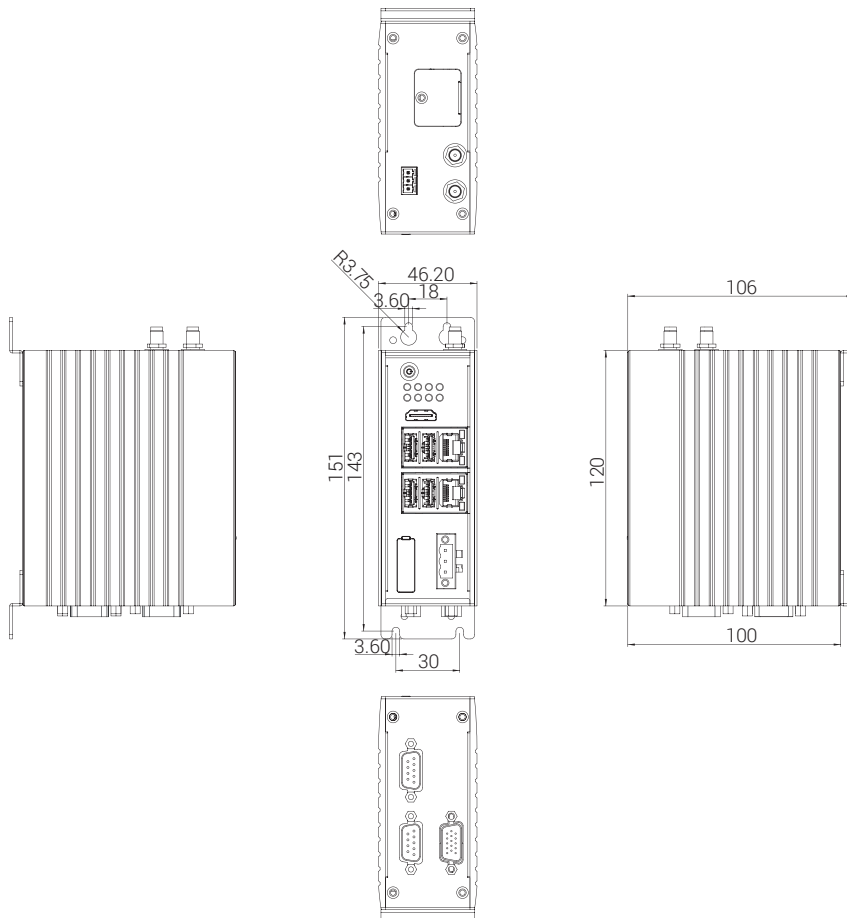
Ordering Information

Model	Part Number	Description
eCCF105	+70ECCF105	Intel® Atom™x5-E3930 Dual Core Factory Automation Fanless System with Palm Size form Factor

eCCF104M Technical Data

CPU Support
- onboard Intel Celeron® processor J1900, Quad Core 2GHz

Main Memory
- onboard type 4GB DDR3L RAM (J1900), un-buffered and non-ECC

Display Option
- HDMI

I/O Interface-Front
- LED for power, battery, TX, RX, WWAN, WLAN, GPO1, GPO2
- 1 x RS-232/485 with auto flow control (support 2.5KV isolation protection)
- 2 x Intel® I211 GbE LAN controller (both jumbo frame: 9KB)
- 1 x USB 3.0 ports (900mA per each)
- 1 x USB 2.0 ports (500mA per each)

I/O Interface-Top
- 1 x HDMI port
- 1 x System reset button
- 1 x 4-in/4-out 5V GPIO via 10-pin terminal block (5V/TTL type)

Storage Device
- optional mSATA module (no eMMC onboard)

Expansion Options
- 1 x Full size mini-PCIe socket
- USB & mSATA signal
- 1 x Half size mini-PCIe socket for optional Wi-Fi/4G/3.5G/LTE modules (USB signal & PCIe signal)

Power Requirement
- Power input: typical +24VDC ±20%
- 1 x Optional 24V, 60W power adapter

Dimensions
- 56.5mm (W) x 100mm (D) x 130mm (H)

Construction
- Aluminum and metal chassis with front access design

Environment
- Operating temperature: Ambient with air flow: -5~50°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C~80°C
- Relative humidity: 10%~93% (non-condensing)
- Shock protection:
  mSATA/eMMC:50G,halfsine,11ms,IEC60068-27
- Vibration protection w/ mSATA or eMMC condition:
  Random: 2Grms@5~500Hz,IEC60068-2-64
  Sinusoidal: 2Grms@5~500Hz,IEC60068-2-6

Certifications
- CE Approval
  EN61000-6-2
  EN61000-6-4
- FCC Class A

Support OS
- Windows 10 IoT Enterprise, 64-bit
- Windows Embedded Standard 7, 32-bit/64-bit
- Linux Kernel version 3.8.0
- Ubuntu 14.04
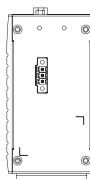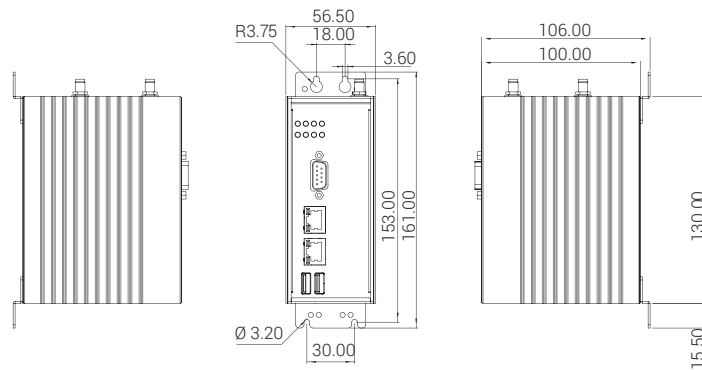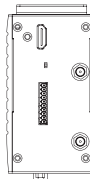
Ordering Information

Model	Part Number	Description
eCCF104M	+70ECCF104M	Intel® Celeron® (J1900) Factory Automation Fanless System in Palm Size

eCCF200 - Technical Data

CPU Support
- Onboard Intel® Celeron® processor J1900 Quad Core 2.0GHz
- Support Intel® Atom™ E3800 processor family from Single Core E3815, Dual Core E3825/E3826/E3827 and Quad Core E3845 with difference SKUs

Main Memory
- 2 x DDR3L SO-DIMM socket, support DDR3L 1066/1333 8GB RAM max., un-buffered and non-ECC

Display Option
- Dual independent display -DVI-I and DP

I/O Interface-Front
- ATX power on/off switch
- LEDs for HDD LED, batty LEDs, power LED, COM port Tx/Rx, 5x programmable GPO LEDs
- 1 x External SD card
- 1 x SIM card holder
- 2 x Intel® I210AT GbE LAN ports, support WoL, teaming and PXE
- 1 x DP display output
- 1 x DVI-I display output
- 1 x USB 3.0 (900mA per each)
- 3 x USB 2.0 (500mA per each)
- 2 x RS232/422/485 support auto flow control
  - Jumper-free setting on RS232/422/485
  - Support 2.5KV isolation protection on COM1
- 1 x 3-pin DC input, typical 24V DC input with ±20% range

Storage Device
- 1 x 2.5" SSD/HDD (SATA 2.0) - front accessible
- 1 x SD card (data storage only)
- 1 x mSATA

Expansion Slot
- 2 x mini-PCIe socket for optional Wi-Fi/3.5G/4G LTE/fieldbus modules

Power Requirement
- Typical 24V DC input with ±20% range, with reverse polarity protection
- 1 x Optional 24V, 60W power adapter

Dimensions
- 85mm (W) x 157mm (D) x 214mm (H)

Construction
- Aluminum and metal chassis with fanless design

Environment
- Operating temperature: Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage temperature: -20°C to 80°C
- Relative humidity: 10% to 95% (non-condensing)
- Shock protection:
  - HDD: 20G, half sine, 11ms, IEC60068-2-27
  - SSD: 50G, half sine, 11ms, IEC60068-2-27
- Vibration protection w/ SSD condition:
  - Random: 2Grms @ 5~500Hz, IEC60068-2-64
  - Sinusoidal: 2Grms @ 5~500Hz, IEC60068-2-64

Certifications
- CE approval
  - EN61000-6-2
  - EN61000-6-4
- FCC Class A
- LVD
- UL60950

Support OS
- Windows 7 PRO, 32bit/64bit
- Windows Embedded Standard 7, 32bit/64bit
- Windows 10 IoT, 32bit/64bit
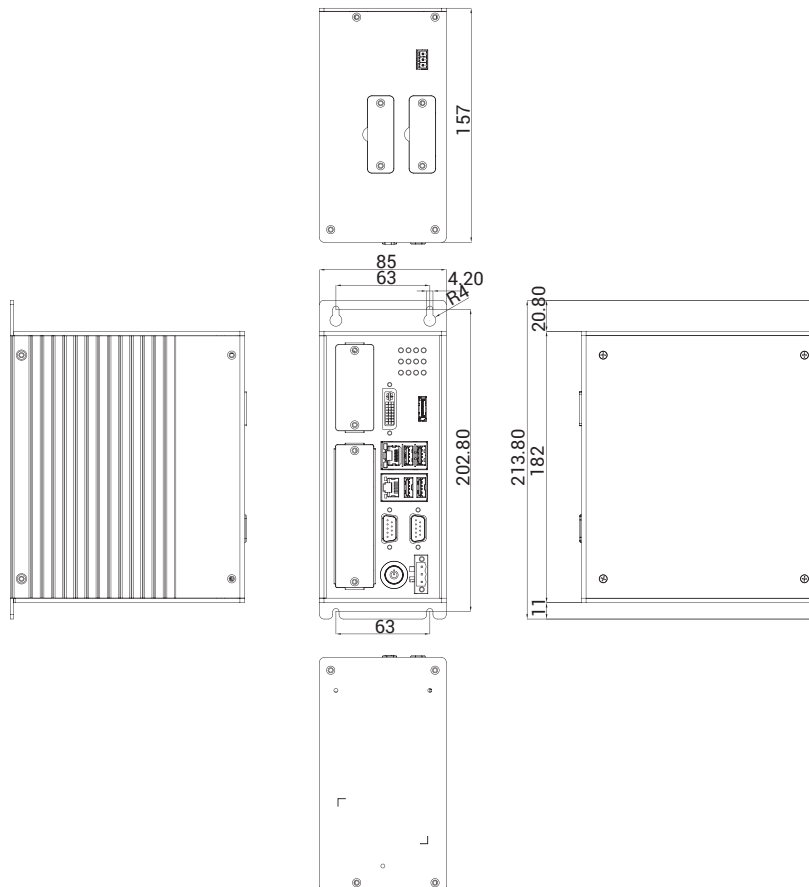
Ordering Information

Model	Part Number	Description
eCCF200	+70ECCF200	Intel® Celeron® J1900 Quad Core 2.0GHz Factory Automation Fanless System with Fieldbus Expansion Ability

eCCF300 - Technical Data

CPU Support
• Support 6th generation Intel® Core™ i7/i5/i3 LGA socket type processors
  - Core™ i7-6700TE, Quad Core, 2.4GHz, 8M Cache (maximum frequency 3.4GHz if turbo boost enabled)
  - Core™ i5-6500TE, Quad Core, 2.3GHz, 6M Cache (maximum frequency 3.3GHz if turbo boost enabled)
  - Core™ i3-6100TE, Quad Core, 2.7GHz, 4M Cache (no turbo boost)
  - Pentium G4400TE, Dual Core, 2.4GHz, 3M Cache (no turbo boost)
  - Celeron® G3900TE, Dual Core, 2.3GHz, 2M Cache (no turbo boost)

Main Memory
• 2 x DDR4 SO-DIMM socket, supports 2133MHz and up to 8GB with un-buffered and non-ECC type

Display Option
• Dual independent display -HDMI + DVI-D

Front I/O Interface Status LEDs
• 1 x Battery/1 x C-Fast LEDs
• 4 x GPO status/2 x Tx/Rx LEDs
• 1 x Power/1 x HDD access LEDs

Front I/O Interface
• 1 x ATX power on/off switch
• 1 x HDMI and 1 x DVI-D
• 4 x USB 3.0 ports (900mA per each)
• 2 x USB 2.0 ports (500mA per each)
• 1 x Line-out and 1 x Mic-in
• 2 x Antenna holes for WI-FI/ GSM
• 1 x Front access 2.5" HDD tray
• 1 x mini-PCIe expansion support optional modules
• 2 x RS232/422/485 auto with 2.5KV Isolation
• 3 x Intel® I210IT GbE LAN ports, support WoL, teaming and PXE

Top I/O Interface
• 1 x 3-pin remote switch
• 1 x CFast expansion
• 1 x SIM card

Storage Device
• 1 x CFast (SATA 3.0)
• 1 x 2.5" HDD (external, SATA 3.0)
• 1 x 2.5" HDD (internal, SATA 3.0)
• 1 x mSATA (via internal mini-PCIe socket)

Expansion Slot
• eCCF300: no expansion
• Power Requirement
AT/ ATX power mode (default with ATX power mode)
Power input: typical +24VDC ±20%, with reverse polarity protection
Power adapter: optional AC to DC power adapter (+24VDC, 120W)

Dimensions
• eCCF300: 90 mm(W) x 185mm (D) x 251mm (H)

Construction
• Aluminum and metal chassis with front access design

Environment
• Operating temperature: Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
• Storage temperature: -20°C to 85°C
• Relative humidity: 10% to 93% (non-condensing)
• Shock protection:
  - HDD: 20G, half sine, 11ms, IEC60068-27
  - CFast: 50G, half sine, 11ms, IEC60068-27
• Vibration protection w/ HDD condition:
  - Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
  - Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-64

Certifications
• CE approval
  - EN61000-6-2
  - EN61000-6-4
• FCC Class A
• LVD

OS Support Lists
• Windows 7 PRO, 32bit/64bit
• Windows Embedded Standard 7, 32bit/64bit
• Windows 10 IoT, 32bit/64bit
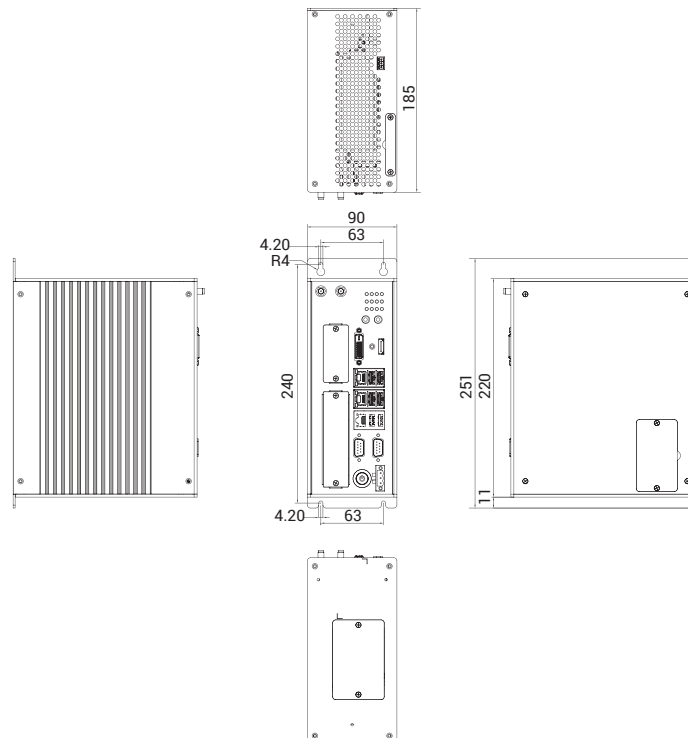
Ordering Information

Model	Part Number	Description
eCCF300	+70ECCF300	6th Generation Intel® Core™ i7/i5/i3 LGA Automation System

MON - Panel Monitors

Heavy Industrial Touch Monitor

Most of EXOR heavy Industrial Touch Monitor shares identical appearance with IPC or EPC series for the same industrial environment application.

Overview

All products are available in wide and flexible range of configurations. You will have the product that fits your needs.

All products have a robust mechanical construction that will suit the most demanding of applications.

eTOP-MON1205T1 Technical Data

Panel
- LCD size: 12.1", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 500cd/m2
- Contrast ratio: 700
- LCD color: 16.7M
- Viewing angle: 70 (U), 70 (D), 80 (L), 80 (R)
- Backlight: LED

Touch Screen
- 5-Wire resistive (flush panel type)
- Light transmission: 80%
- Interface: USB and RS232

Rear I/O
- Touch screen interface port: RS-232 (1 x DB9)/USB type A
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-I connector)/DisplayPort
- DC power input connector: 3-pin Phoenix terminal Blocks

OSD Function
- OSD keypad
- Multilanguage OSD

Mechanical & Environment
- Color: Pantone black and black silver chassis box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power
Power input: 12V~24VDC

Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration
IEC 68 2-64
2Grms @ sine, 5~500Hz, 1hr/axis (operating)
2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock
IEC 68 2-27
20G@wall mount, half sine, 11ms
Operating temperature: -5°C~50°C
Storage temperature: -20°C~75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 317 x 243 x 53.5mm
- Weight: 2.8 kg

Certifications
- CE approval
- FCC Class B
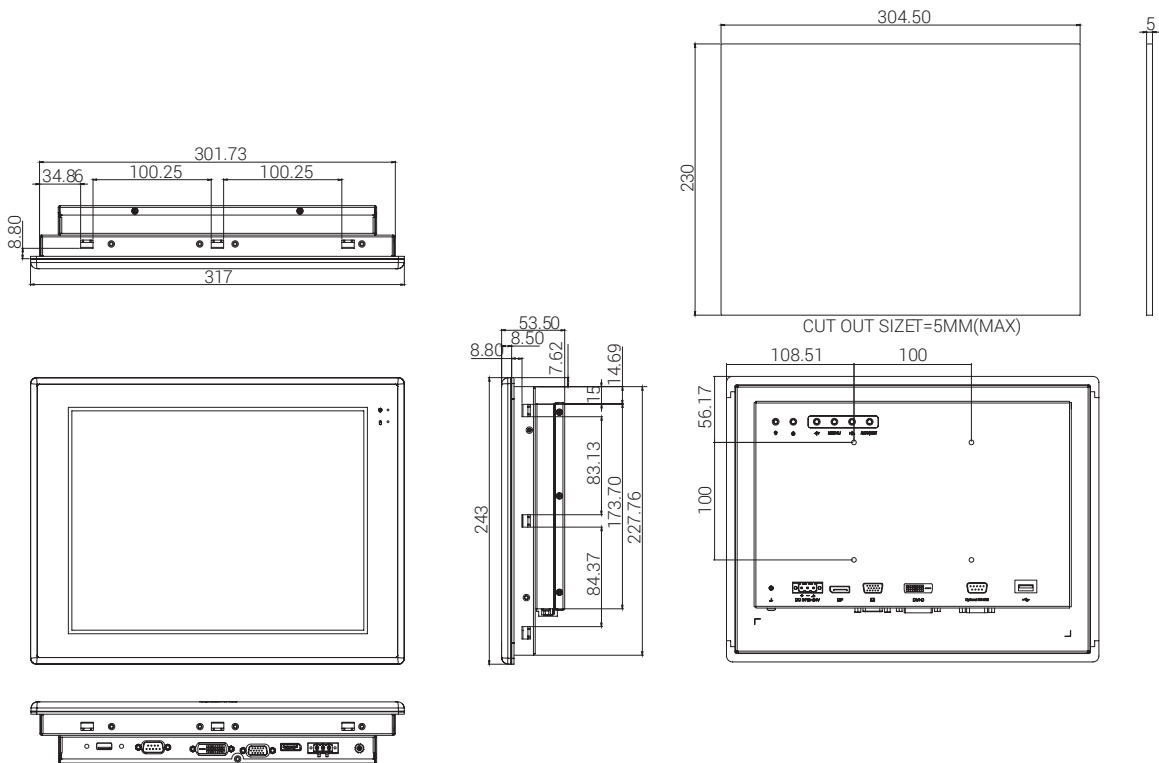
Ordering Information

Model	Part Number	Description
eTOP-MON1205T1	+73MON1205T1	12.1" IP65 Industrial 4:3 XGA LCD Flush Touch Monitor

eTOP-MON1500T1 Technical Data

Panel
- LCD size: 15", 4:3
- Resolution: XGA 1024 x 768
- Luminance: 400cd/m2
- Contrast ratio: 2500
- LCD color: 16.7M
- Viewing angle: 88 (U), 88 (D), 88 (L), 88 (R)
- Backlight: LED

Touch Screen
- 5-Wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB and RS232

Rear I/O
- Touch screen interface port: RS-232 (1 x DB9)/USB type A
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-I connector)/ DisplayPort
- DC power input connector: 3-pin Phoenix terminal blocks
- OSD Function
- OSD keypad
- Multilanguage OSD

Mechanical & Environment
- Color: Pantone black and black silver chassis box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power
Power input: 12V~24VDC
Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration
IEC 68 2-64

2Grms @ sine, 5~500Hz, 1hr/axis (operating)
2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock
IEC 68 2-27
20G@wall mount, half sine, 11ms
Operating temperature: -5°C~50°C
Storage temperature: -20°C~75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 384.37 x 309.95 x 51mm
- Weight: 3.9 kg

Certifications
- CE approval
- FCC Class B

CUT OUT SIZET=5MM(MAX)
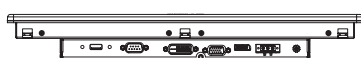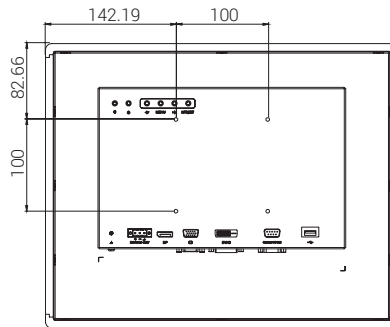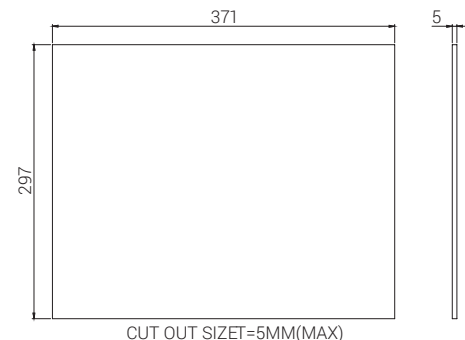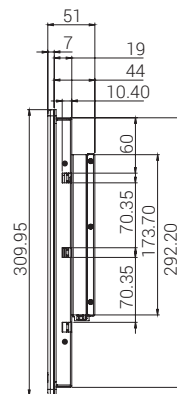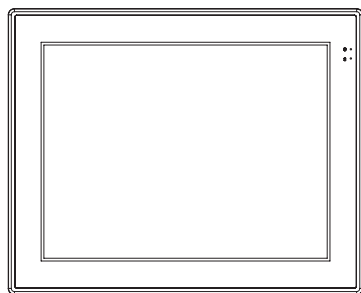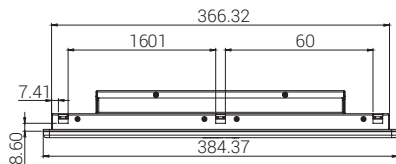
Ordering Information

Model	Part Number	Description
eTOP-MON1500T1	+73MON1500T1	15" XGA industrial 4:3 LED Backlight flush touch monitor

eTOP-MON1700T1 Technical Data

Panel
- LCD size: 17", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m2
- Contrast ratio: 800
- LCD color: 16.7M
- Viewing angle: 60 (U), 80 (D), 80 (L), 80 (R)
- Backlight: LED

Touch Screen
- 5-Wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB and RS232

Rear I/O
- Touch interface port: RS232 (1 x DB9)/USB type A
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-I connector)/ DisplayPort
- DC power input connector: 3-pin Phoenix terminal blocks

**OSD Function**
- OSD keypad
- Multilanguage OSD

Mechanical & Environment
- Color: Pantone black and black silver chassis box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power
Power input: 12V~24VDC
Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration
IEC 68 2-64

2Grms @ sine, 5~500Hz, 1hr/axis (operating)
2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock
IEC 68 2-27
20G@wall mount, half sine, 11ms
Operating temperature: -5°C~50°C
Storage temperature: -20°C~75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 410.4 x 340.4 x 53.9mm
- Weight: 4.8 kg

Certifications
- CE approval
- FCC Class B

CUT OUT SIZET=5MM(MAX)
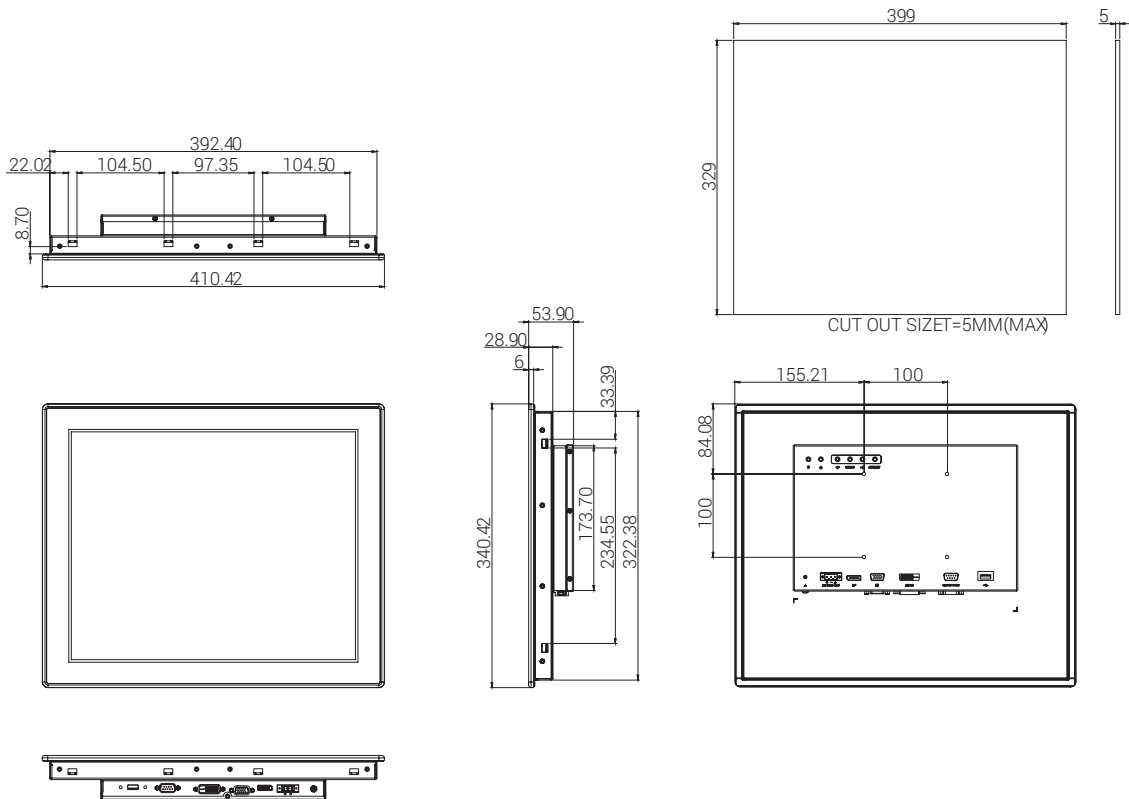
Ordering Information

Model	Part Number	Description
eTOP-MON1700T1	+73MON1700T1	17" SXGA industrial 4:3 LED Backlight flush touch monitor

exorint.com

eTOP-MON1900T1 Technical Data

Panel
- LCD size: 19", 4:3
- Resolution: SXGA 1280 x 1024
- Luminance: 350cd/m2
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch Screen
- 5-Wire resistive (flush panel type)
- Light transmission: 81%
- Interface: USB and RS232

Rear I/O
- Touch interface port: RS-232 (1 x DB9)/USB type A
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-I connector)/ DisplayPort
- DC power input connector: 3-pin Phoenix terminal blocks

**OSD Function**
- OSD keypad
- Multilanguage OSD

Mechanical & Environment
- Color: Pantone black and black silver chassis box
- IP protection: IP65 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- Power
Power input: 12V~24VDC
Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration
IEC 68 2-64

2Grms @ sine, 5~500Hz, 1hr/axis (operating)
2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non-operating)
- Shock
IEC 68 2-27
20G@wall mount, half sine, 11ms
Operating temperature: -5°C~50°C
Storage temperature: -20°C~75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 457.64 x 379.24 x 49.15mm
- Weight: 5.5 kg

Certifications
- CE approval
- FCC Class B

CUT OUT SIZET=3MM(MAX)
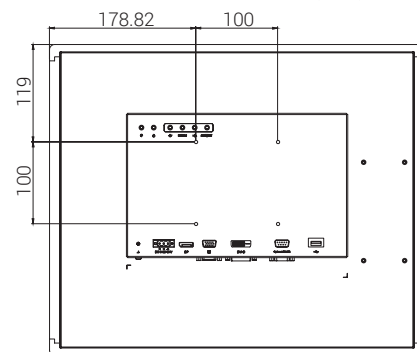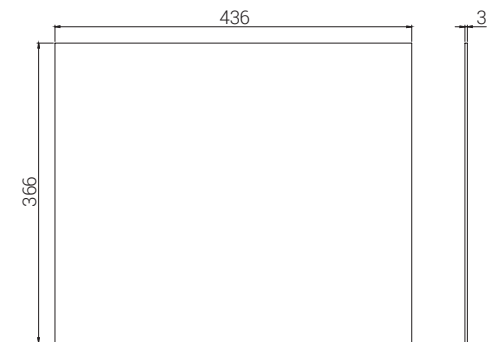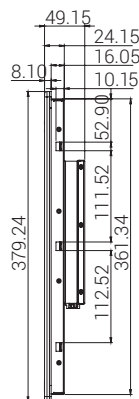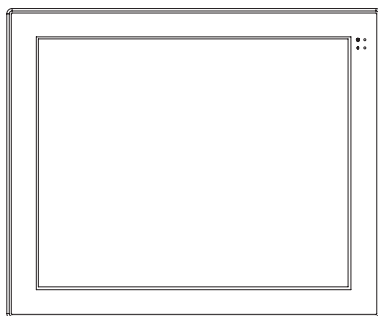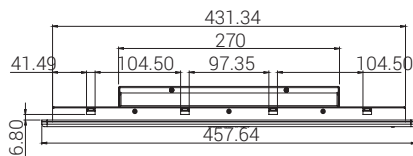
Ordering Information

Model	Part Number	Description
eTOP-MON1900T1	+73MON1900T1	19" SXGA industrial 4:3 LED Backlight flush touch monitor

eTOP-MON1600P - Technical Data

Panel
- LCD size: 15.6", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 400 cd/m^2
- Contrast ratio: 500
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB

Rear I/O
- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-D connector)/DisplayPort
- DC power input connector: 3-pin PHOENIX terminal Blocks

OSD Function
- OSD keypad
- Multilanguage OSD

Mechanical & Environment
- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)
- Vibration:

IEC 68 2-64
2Grms @ sine, 5~500Hz, 1hr/axis (operating)
2.2Grms @ random condition, 5~500Hz,
0.5hr/axis (non-operating)
- Shock:
IEC 68 2-27
HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
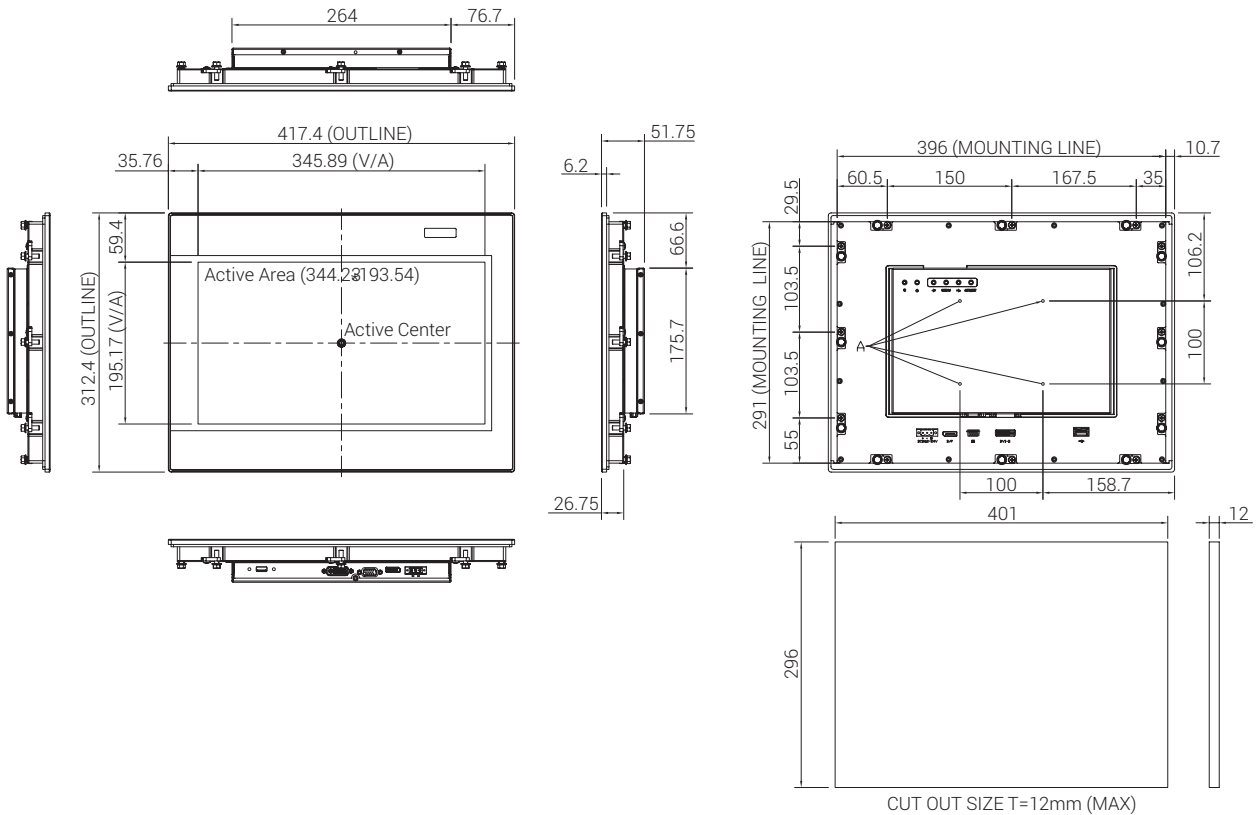- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 417.4 x 312.4 x 51.75mm
- Weight: 5.48Kg

Certifications
- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/EN61000-6-4)
- FCC Class B

Ordering Information

Model	Part Number	Description
eTOP-MON1600P	+73MON1600P	15.6" IP66 Heavy Industrial 16:9 WXGA Zero Bezel Flush Touch Monitor

eTOP-MON1800P - Technical Data

Panel
- LCD size: 18.5", 16:9
- Resolution: WXGA 1366 x 768
- Luminance: 400cd/m2
- Contrast ratio: 1000
- LCD color: 16.7M
- Viewing angle: 80 (U), 80 (D), 85 (L), 85 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

Rear I/O
- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1 x DVI-D connector)/ DisplayPort
- DC power input connector: 3-pin PHOENIX terminal blocks

OSD Function
- OSD keypad
- Multilanguage OSD

Mechanical & Environment
- Color: Pantone 432C/RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/wall/stand/VESA 100mm x 100mm
- System with panel mounting kit w/ o panel mounting hole
- Power input: 12~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)

Vibration:
- IEC 68 2-64
- 2Grms @ sine, 5~500Hz, 1hr/axis (operating)
- 2.2Grms @ random condition, 5~500Hz, 0.5hr/axis (non operating)
- Shock:
- IEC 68 2-27
- HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 490.8 x 320.6 x 50.65mm
- Weight: 6.24Kg

Certifications
- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/ EN61000-6-4)
- FCC Class B
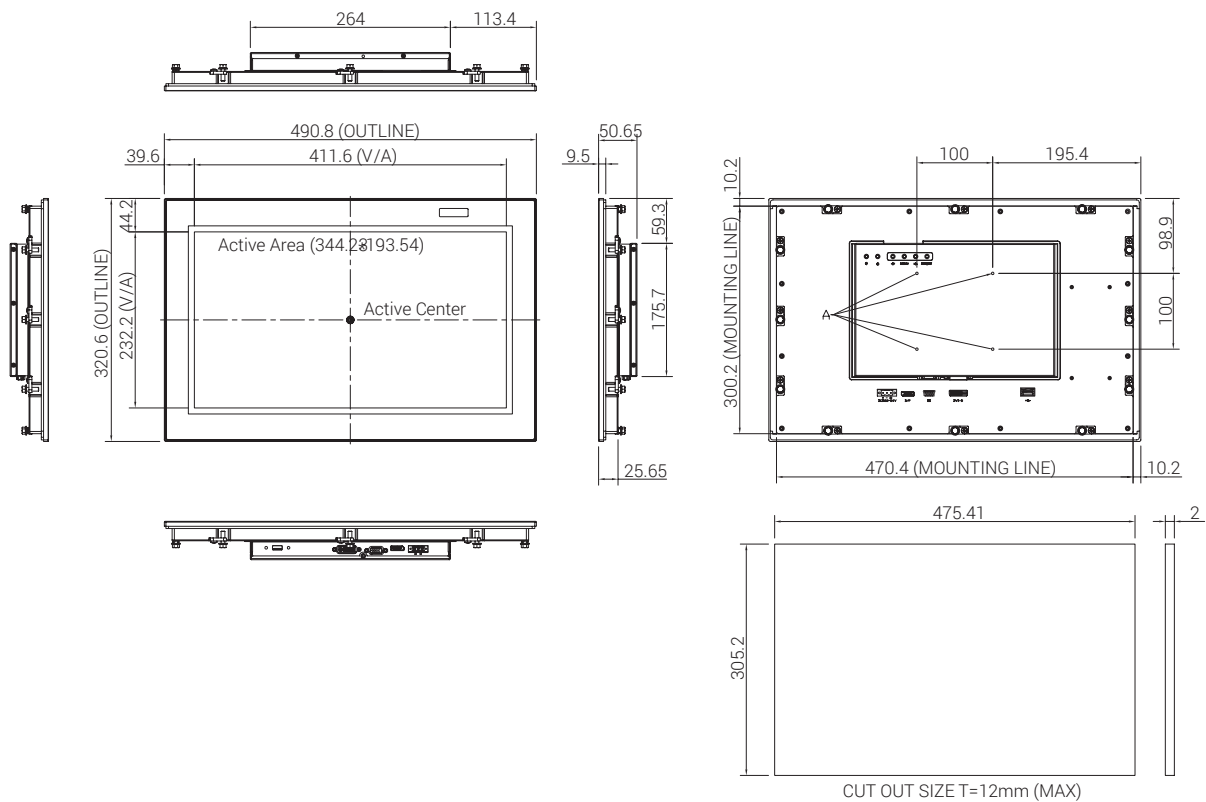
Ordering Information

Model	Part Number	Description
eTOP-MON1800P	+73MON1800P	18.5" IP66 Heavy Industrial 16:9 WXGA Zero Bezel Flush Touch Monitor

eTOP-MON2100P - Technical Data

Panel
- LCD size: 21.5", 16:9
- Resolution: full HD 1920 x 1080
- Luminance: 300cd/m2
- Contrast ratio: 5000
- LCD color: 16.7M
- Viewing angle: 89 (U), 89 (D), 89 (L), 89 (R)
- Backlight: LED

Touch
- Ten points P-Cap (projected capacitive touch)
- Touch light transmission: 87%
- Anti-scratch surface: 7H hardness
- Touch interface: USB
- Windows 8 compliance

Rear I/O
- Touch interface port: USB with Lock
- Video port: VGA (1 x DB15)/DVI-D (1x DVI-D connector)/ DisplayPort
- DC power input connector: 3-pin PHOENIX terminal blocks

OSD Function
- OSD keypad
- Multilanguage OSD

Mechanical & Environment
- Color: Pantone 432C\RAL 70 24 front bezel
- IP protection: IP66 front
- Mounting: panel/ wall/ stand/ VESA 100mm x 100mm
- System with panel mounting kit w/o panel mounting hole
- Power input: 12~24VDC
- Power adapter: optional AC to DC power adapter (+12V, 60W)

- Vibration:
  IEC 68 2-64
  2Grms @ sine, 5~500Hz, 1hr/axis (operating)
  2.2Grms @ random condition, 5~500Hz,
  0.5hr/axis (non-operating)
- Shock:
  IEC 68 2-27
  HDD: 20G@wall mount, half sine, 11ms
- Operating temperature: -10°C to 60°C
- Storage temperature: -20°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 562.4 x 382.4 x 50.85mm
- Weight: 7.87Kg

Certifications
- CE (including EN61000-6-1/EN61000-6-2/EN61000-6-3/ EN61000-6-4)
- FCC Class B
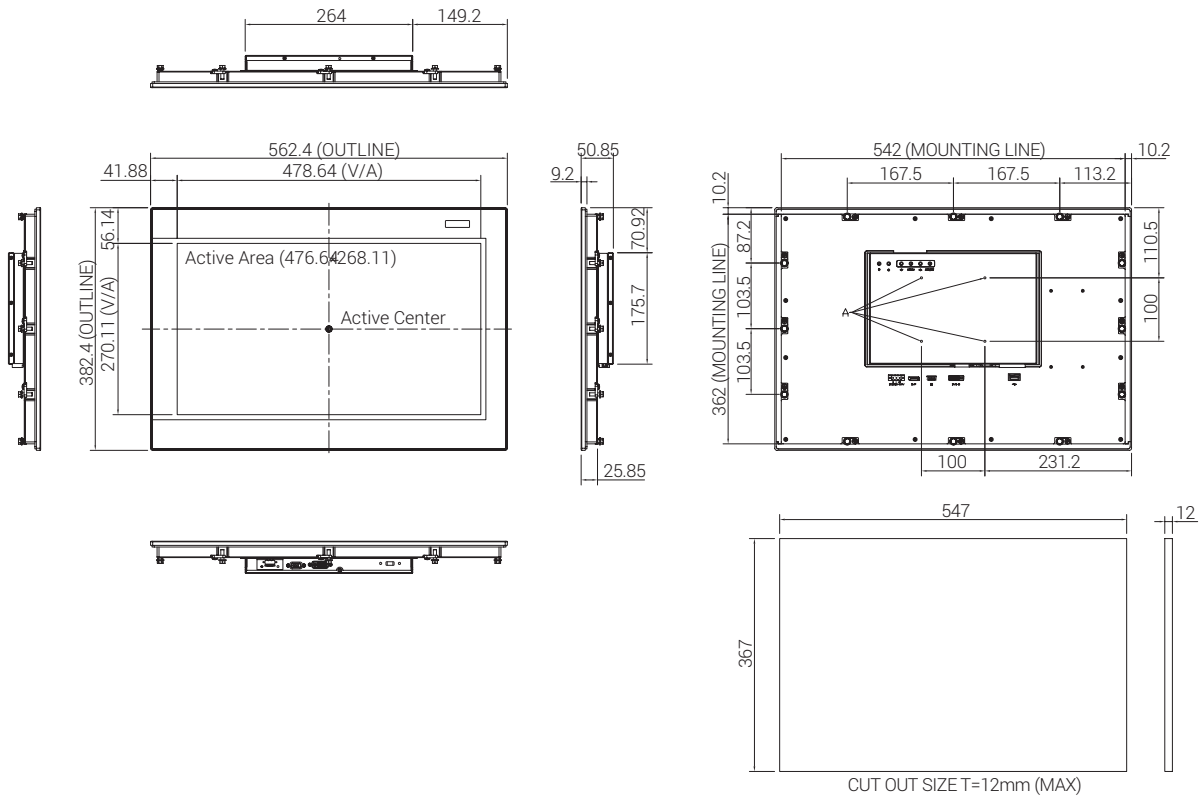
Ordering Information

Model	Part Number	Description
eTOP-MON2100P	+73MON2100P	21.5" IP66 Heavy Industrial 16:9 WXGA Zero Bezel Flush Touch Monitor

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