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The X Platform

Today's needs

Tomorrow's wants



Purchase Criteria

Future Ideas

Your Objective, 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. Industry 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 Industry 4.0 Solution to Your Business Objective.

That's why EXOR International is a technology provider.

X PLATFORM

In the sophisticated world of industrial automation, the march of progress is constant and unassuming. It's a world where machine builders and factory owners seek not just equipment, but comprehensive solutions - a reliable, silent partner in their quest for operational excellence.

Enter the X Platform, a quietly confident presence ready to **bridge the gap between the complex aspirations of machine builders and the practical necessities of factory operations.**



TODAY'S NEEDS

Remote Access VPN

Connect seamlessly to devices regardless of their location

Unlock the potential of remote access and VPN solutions designed exclusively for industrial machine builders and factory owners. seamlessly and securely connect to your devices and machines, no matter where they are located. Read more on our website.



Industrial Fleet Management

Seamless Management for Every Machine in Your Fleet

Empower, monitor, and update globally with a click. Introducing the power of the X Platform's Fleet Management app - a complete technology designed to oversee your machine fleet throughout its lifecycle. Read more on our website.



Advanced Documentation

Empower Operations with Instant Documentation Access

From digital clarity to analog precision - all in one place. Harness the potential of the X Platform's Advanced Documentation function, bridging the digital and analogue realms effortlessly. Read more on our website.



HMI and IPC Integration

Effortless interfaces for optimal control.

From the very basic component of IIoT, at the SOM level, through field and then up to SCADA and master level panels, EXOR covers all the current and future market needs. [Discover more on page 34.](#)



Edge Visualization

Revolutionary Software for Industrial Edge Visualization

With JMobile's user-friendly software suite, you can seamlessly manage connectivity from edge to cloud, device operations, process management, and data visualization. This comprehensive solution is essential for all levels of edge to cloud integration in any Industrial IoT platform architecture. [Discover more on page 14.](#)



Protocols

Transforming Operations with Enhanced Data Sharing

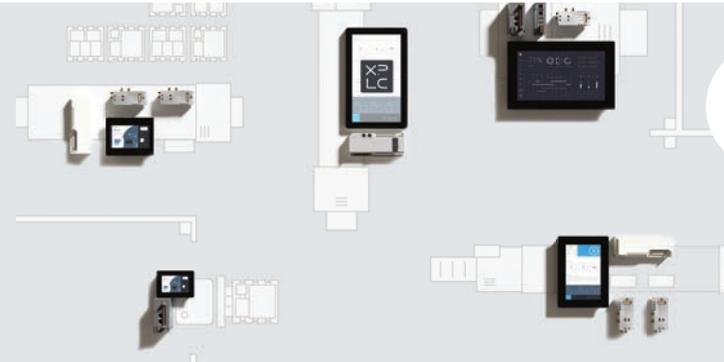
EXOR products enable seamless communication between your machines, regardless of their age or complexity. Our devices are equipped with communication drivers for all major brands of controllers, allowing for easy routing and exchange of key data with the systems in your facility.



Soft PLC

XPLC: Innovative IEC 61131-3 development ecosystem

XPLC is a development environment full compliant with the IEC 61131-3 standard, the most common standard for programming industrial controllers. Read more on our website.



Embedded

The First Component of Industrial IoT

Embedded department concentrates in Embedded Computer Systems based on ARM architecture which are used in many different professional environments. [Discover more on page 30.](#)



Edge security

Managing the Balance between Security and Usability



All parts of the EXOR X Platform sit as a working bridge between the need for high levels of security and the usability of an IIoT system. There is by necessity a compromise to be made between these two sides. Read more on our website.

TOMORROW'S WANTS

Predictive Maintenance

Unleashing the Future of Maintenance: Predictive Power at Your Fingertips

Invest in predictive maintenance programs, in order to reduce downtime and increase overall machine efficiency. Harness the strength of the X Platform and elevate your machinery with our state-of-the-art Predictive Maintenance app. Read more on our website.



Remote Monitoring

Real-time Data and Predictive Insights for Machine Builders and Factory Owners

Remote monitoring is a practice that involves monitoring and collecting data from machines, equipment, or systems located in industrial settings from a remote location. Read more on our website.



Condition Monitoring

Ensure Peak Performance with Real-time Monitoring

Condition management borrows a leaf from the early monitoring processes but includes an extra dose of digitalization and data analysis to determine machine conditions in real-time and to accurately predict failure rates. Visualize, analyze, and respond instantly to machine operations. Read more on our website.



Lean Machine Analytics

Unleash the Power of Lean Analytics for Peak Machine Performance

Empower your machines with insightful analysis, every step of the way. Dive deep into the core of your machine's production efficiency. Our OEE application, backed by the robust capabilities of the X Platform, allows you to monitor and evaluate the Overall Equipment Efficiency (OEE) with precision. Read more on our website.



Energy Efficiency

Unlock Sustainable Productivity with Energy Efficiency

Empower your machines to do more with less energy. Leverage the X Platform's cutting-edge technology to incorporate our Energy Efficiency app into your machines. By offering real-time data analytics, our app not only monitors energy consumption but also identifies optimization opportunities. Read more on our website.



Performance Consultancy

Unleash a New Dimension of Value with Performance Consultancy

Beyond machines: tailoring peak performance for your clients. Stepping into the next era of industrial automation, the X Platform brings forth Performance Consultancy - a strategic service for machine builders who leverage a range of our advanced apps. Read more on our website.



Shift Management

Master Your Shifts, Multiply Your Efficiency

Transform production schedules into strategic assets. The Shift Management app, enabled by the versatile X Platform, delivers key insights into shift operations and machine availability. Read more on our website.



Edge Computing

Discover Edge Computing for Tomorrow's Machinery

Unleash the potential of real-time processing at the source. Edge computing brings data processing power closer to the source of data, right where your machines are situated. Read more on our website.



PURCHASE CRITERIA

Scalability

The X Platform is crafted to adapt to evolving business needs. Whether your setup is a small-scale unit or an expansive industrial complex, our platform effortlessly scales to meet demands. With modular components and a cloud-native architecture, the X Platform ensures that as your business grows, so does your automation solution, without demanding massive reinvestments or comprehensive overhauls.

Interoperability

Recognizing the diversity in industrial setups, X Platform seamlessly integrates with various devices, systems, and platforms. Built on open standards, it ensures that whether you're incorporating legacy systems or the latest IoT devices, integration is smooth and streamlined.

Security

In today's digital age, security isn't optional. The X Platform has an inbuilt, multi-layered security framework, safeguarding data at every touchpoint. From encrypted communications to rigorous access controls, we prioritize your data's safety and the integrity of your operations.

Data Analytics

Turning raw data into actionable insights is a strength of the X Platform. It not only collects data but also offers robust analytics tools to drive efficiency and innovation. Machine learning algorithms and predictive analytics within the platform pave the way for proactive decision-making, reducing downtimes and boosting productivity.

Flexibility

We understand that no two industries, or even two factories, are the same. The X Platform is designed to be versatile, catering to specific needs with customizable technology. Its modular design allows machine builders to choose components that fit their immediate needs, while also offering the flexibility to adapt in the future.

Edge Capability

In a world driven by real-time data, edge processing is vital. The X Platform processes data on-site, reducing latency and ensuring quicker response times. By combining edge computing with cloud analytics, our platform offers the best of both worlds – immediate data processing and comprehensive insights.

Business Model Friendly

We're not just a technology provider; we're your partners in growth. Our cooperative business model focuses on mutual growth and long-term relationships. With flexible licensing, support packages, and collaborative solution-building, we ensure our success is tied to yours.

Reliability and Uptime

The X Platform promises robustness. Built on a foundation of resilient architecture, it ensures minimal downtimes and consistent performance. With a globally distributed network and 24/7 support, we ensure that your operations remain uninterrupted, come what may.

Future Proof

The rapidly evolving tech landscape demands solutions that remain relevant. The X Platform is continually updated, ensuring it incorporates the latest in automation and IoT. Our commitment to R&D and our finger on the pulse of industry trends ensures that when you invest in the X Platform, you're investing in the future.

SOFTWARE

JMobile[®]

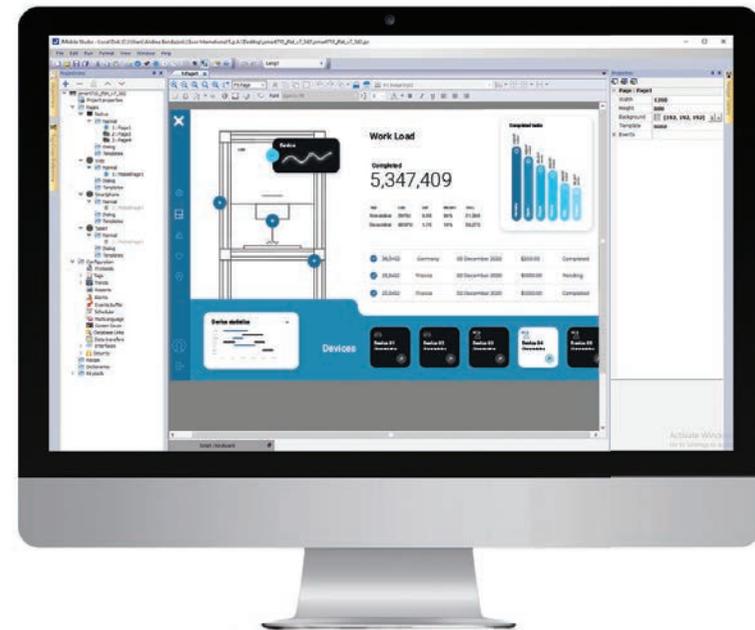


Operational Technology Software

JMobile: 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 all the edge to cloud levels in **any Industrial IoT platform architecture**. JMobile is a distinguished software suite in the industrial sector, offering robust communication solutions for the Industrial Internet of Things (IIoT). This software is designed to facilitate **seamless interaction between industrial machines and digital platforms**, encompassing a range of functionalities **from edge to cloud connectivity**, device management, process management, and data visualization.

- High User Interface Experience
- Create IIoT ecosystems with reduced risk
- Real Interoperability
- Great HTML5 interface with JM4Web
- Create Alarms with associated Alerts
- Efficient scripting with JavaScript
- Option for external SQL Database Access, as IT-OT Joiner
- 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 6 languages: English, German, French, Korean, Traditional and Simplified Chinese
- Multi platform runtime: Linux, Windows
- Full compatibility with OPC UA



Overview

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, CANopen, EtherNet/IP, Modbus amongst many others. Transmitted using the highly robust and secure OPC UA standard, **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, **JM4Web**. This provides users with advanced control and remote supervision from any browser, any device (smartphone, tablet, or computer).

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.

Version 4.5 Improvements

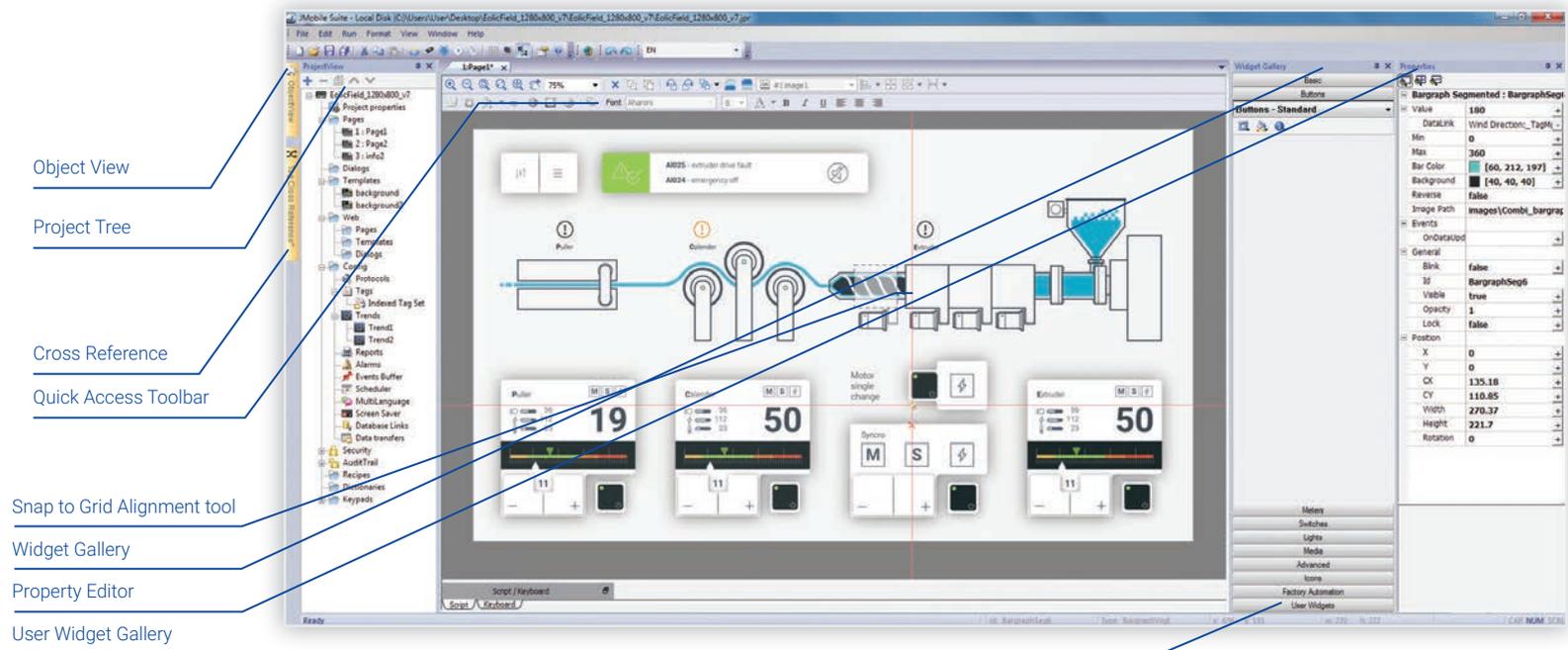
New Features:

- Fully redesigned Widget Gallery with search functionality
- Security and protection of intellectual property with project encryption and sign
- New dashboard pages for responsive design
- New watch window in JMobile Simulator
- Native support for connecting SQL Databases (MySQL, MariaDB, PostgreSQL, ODBC)
- New Tab/Toolbar widget with gestures
- New Stack widget to manage many layers on Z axis at design time and in runtime
- New QR code widget to load a specific page or URL

Improvements, usability and productivity:

- Browser widget with new technology engine
- TLS support for sending emails
- Trends Autofill, Import/Export, Copy/Paste to maximize productivity
- Indexed Tag Sets Import/Export and Copy/Paste to maximize productivity
- Possibility to attach client variable to index of Indexed Tags Sets to support session-based instances

- Pick any color from screen to maximize design power
- Added custom selectors in table and grid based widget for better suggestion on how to use them
- Alphanumeric fields with custom language-based keypads
- Improved way to import certificates in OPC UA Client protocol
- Added validation controls on OPC UA Client protocol
- Added TCP mode to CODESYS V3 ETH protocol



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 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

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

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

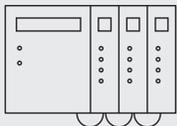
JMobile project validation technology makes it simpler creating fully operational applications under all conditions.



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 you will find a great design for:

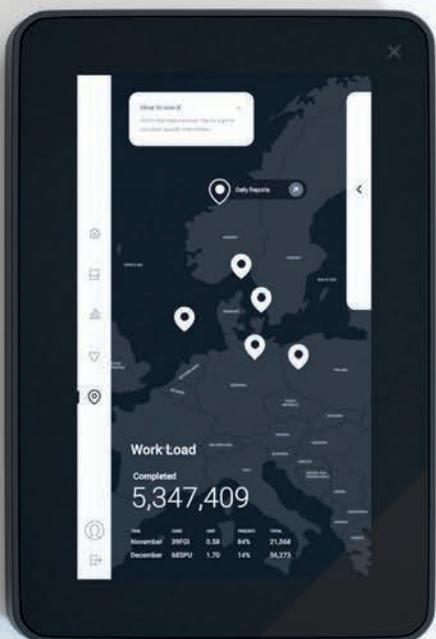
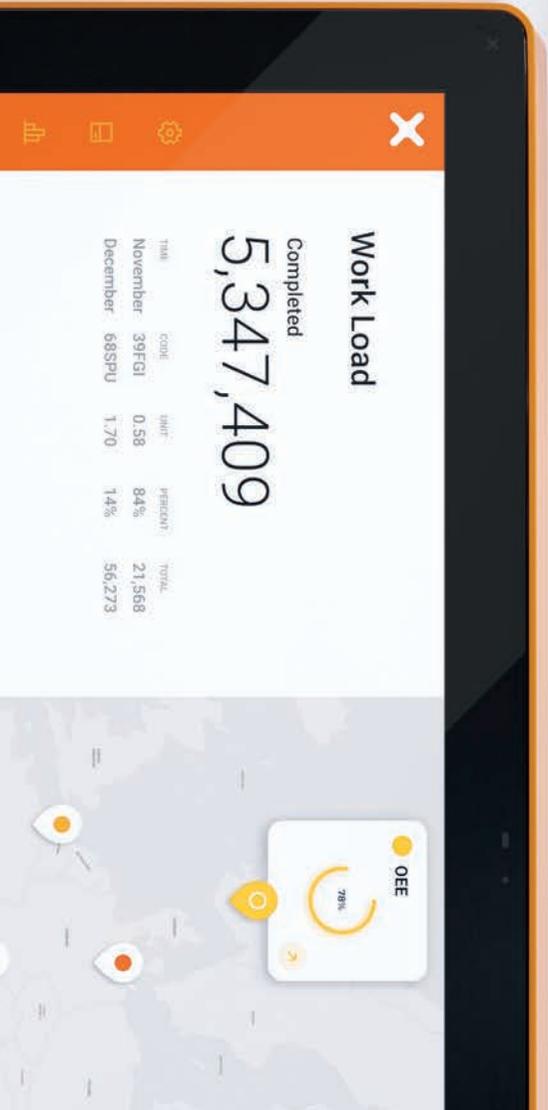
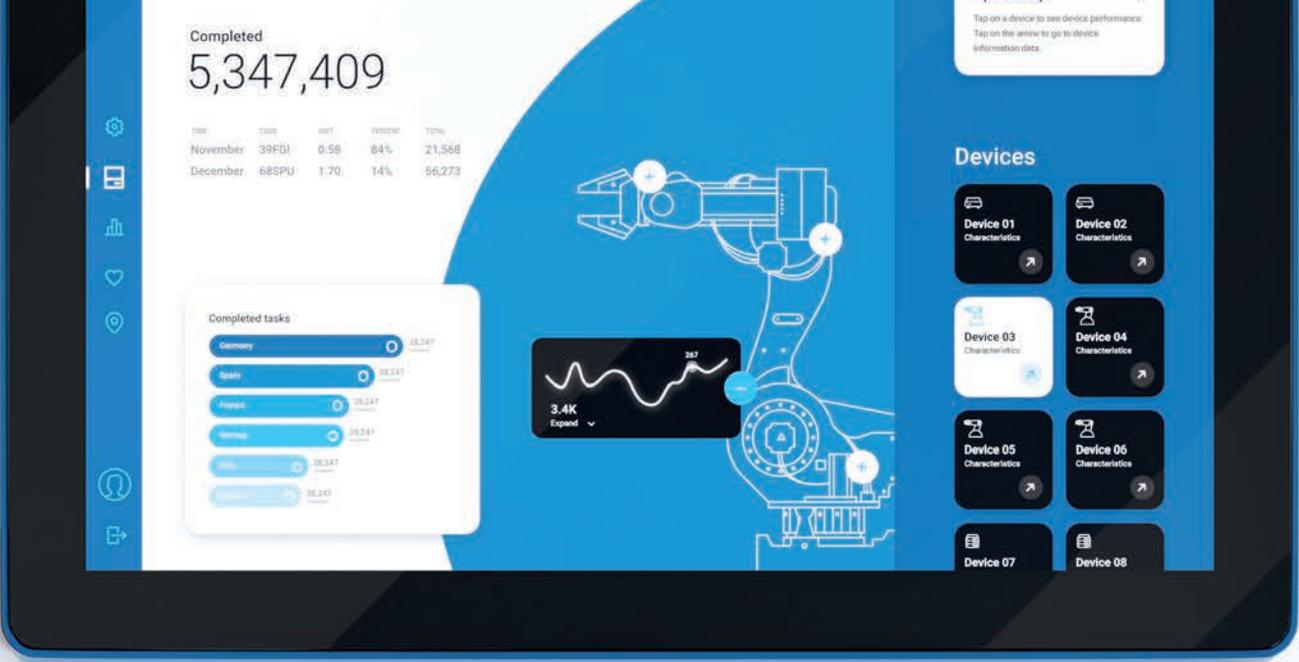
- Project View with drag&drop to move pages within the project and multiple selections
- Tag Editor with unification of tag database and dictionary, customizable view, multiple editing of common properties, powerful search and synchronization of symbol files
- Alarm Editor with customizable view, powerful 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.

JMobile includes support for the most common protocols for PLCs like Siemens, Rockwell, Omron, Beckhoff and many others. Open protocols for direct CAN, serial and TCP/UDP communication are included as well.



Pure Web Technology

JM4Web 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

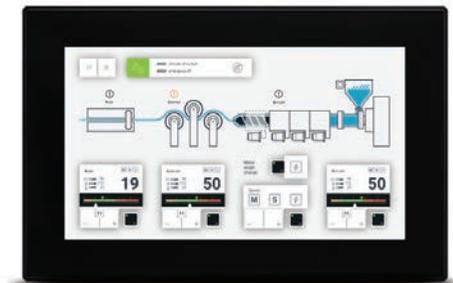
Overview

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.



IOT

PLATFORM

CO.FVINA®



CORVINA IoT Platform

Industrial IoT Digital Platform for Smart Manufacturing and Smart Machine Solutions

Who is CORVINA Platform for?

Machine Builders

- Remote monitoring and control
- Data analysis and insights
- Predictive maintenance
- Centralized remote management
- Improved customer experience
- Increased machine performance and efficiency
- Supports Servitization by offering additional services and value to customers

Manufacturers

- Remote monitoring and control of factory operations
- Data analysis and insights for process optimization and waste reduction
- Predictive maintenance for reducing downtime and improving equipment utilization
- Centralized management of multiple factories for standardization and uniformity
- Improved customer satisfaction and experience through efficient and streamlined processes.

System Integrators

- Increased competitiveness
- Improved customer satisfaction
- Increased revenue
- Data-driven decision making
- Scalability
- Supports core business of system integration

Our industrial IoT platform is designed specifically for businesses looking to take advantage of the latest digital technologies to grow and improve their operations.

The platform includes advanced smart manufacturing and smart machine solutions that allow real-time monitoring, predictive maintenance, and remote control capabilities.

These features are easily accessible through a user-friendly interface, and are specifically designed to help businesses increase efficiency, reduce downtime, and improve overall productivity.

CORVINA is the cloud-based, open industrial IoT Platform that provides the technology you need for the industrial world.

CORVINA is the cloud-based, open industrial IoT platform that provides the technology you need for the industrial world. CORVINA is an administration shell for distributed edge systems, integrating data collection, monitoring and control, configuration management, integrated web tools and programming environments to support the machinery and applications throughout its whole lifecycle providing productivity increase and new Business Model based on Services.

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, artificial intelligence, predictive maintenance, data modeling and OT remote monitoring.

The platform offers three main services:

REMOTE ACCESS

The remote access VPN solution allows you to easily and securely connect to your devices and machines that they are connected to. It is an advanced connectivity management solution that puts you in control of your IIoT business.

The platform is entirely web-based and provides users with a way to securely communicate with and manage updates on devices and connected endpoints.

FLEET MANAGEMENT

A complete technology designed to oversee your machine fleet throughout its lifecycle. Supported by the advanced Artifact Registry, it ensures that essential data and configurations are securely stored in a cloud-based space. This intuitive interface grants a comprehensive global overview of every connected machine. Beyond monitoring, the Fleet Management app also streamlines operations through its OTA application, enabling swift update campaigns using files from the artifact registry, and facilitates effortless maintenance via VPN.

IIoT DATA COLLECTION & ANALYSIS

IIoT Data Collection, Visualization and Analysis is the open industrial IIoT Platform. It connects any products, plants, systems, and machines. It allows the data generated by the internet of things to be processed simply and intuitively with advanced analysis. Data is sent from the device to the cloud where it is stored and can be visualized with web-based dashboards. Dashboards can be easily created and edited by users with a drag and drop interface, no programming knowledge is required.



Solution Architecture

IoT data collection, visualization and analysis is the key for machinery servitization and plant digitalization. CORVINA 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, artificial intelligence, predictive maintenance and OT remote monitoring.

Key features

MULTITENANT MANAGEMENT

Easy upgrade, easy customization and ongoing cost savings.

REMOTE MANAGEMENT

Proactive Service based on Alarm, Remote Support to the Customer.

DATA MODELING & ALARMS

Optimize the device connection allowing the creation of profiles for machine models. Protect plant uptime and safety minimizing the impact of abnormal situations.

CUSTOM SDK & REST API

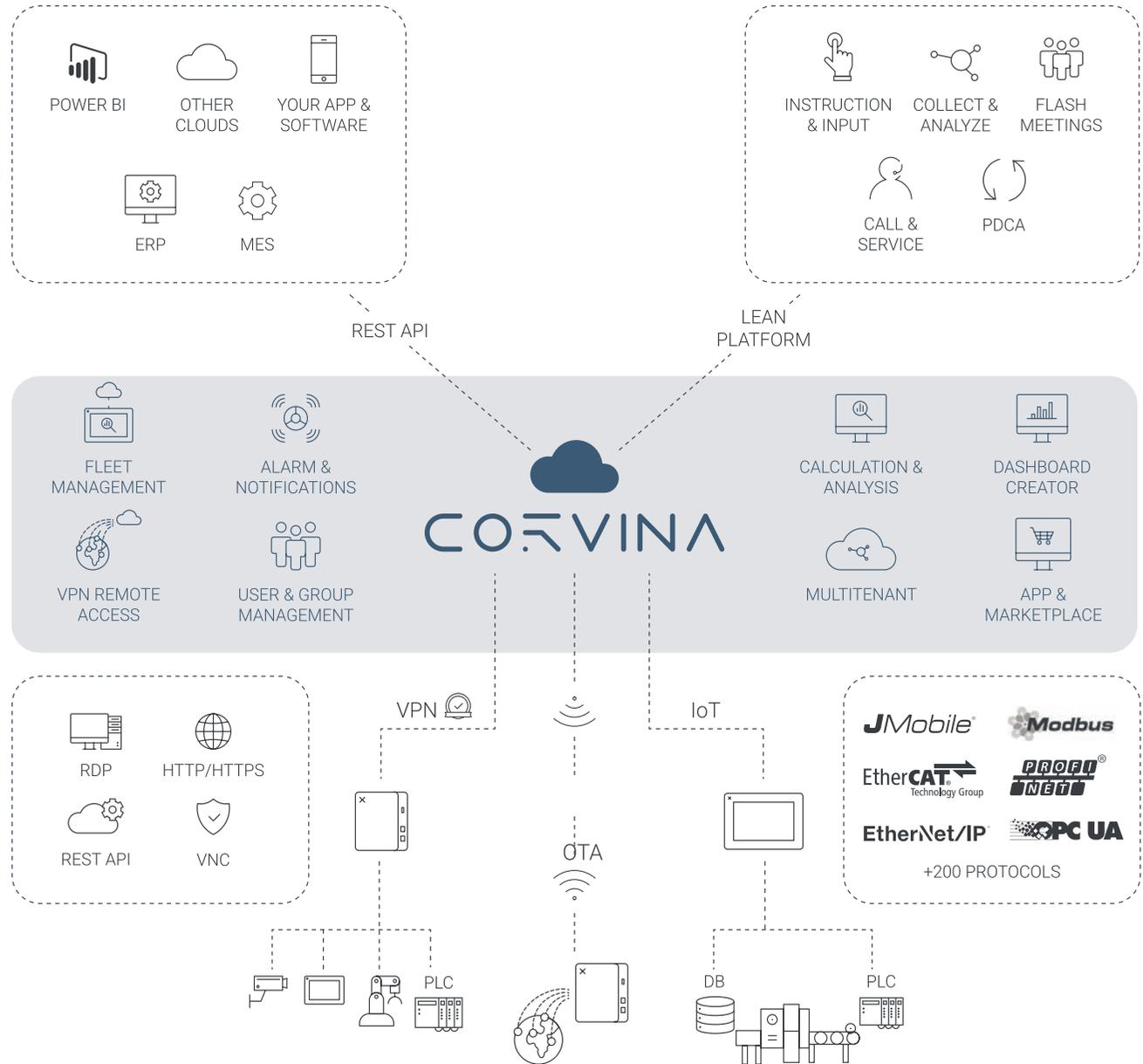
Customize dashboard with implementing widget, kpi, data analysis functions. Offering great deal of flexibility. Data is not tied to resources or methods.

FINE GRAIN ACCESS

Highly specific access constraints to data and function.

DASHBOARD CREATOR & UI CUSTOMIZATION

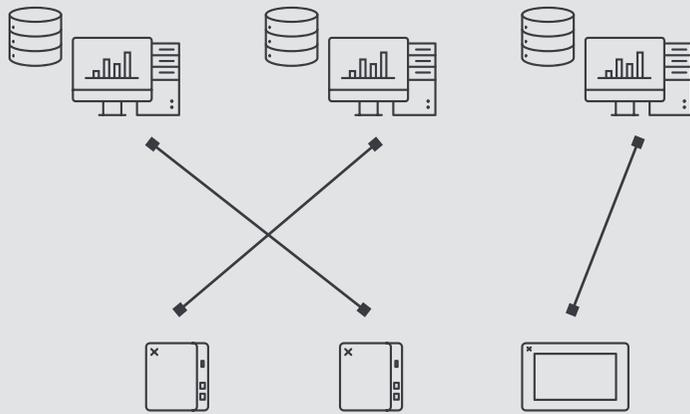
Autonomously increase profits creating dashboard that shows you relevant data for your business. Placing the visual design in line with your brand provides good secondary sales.



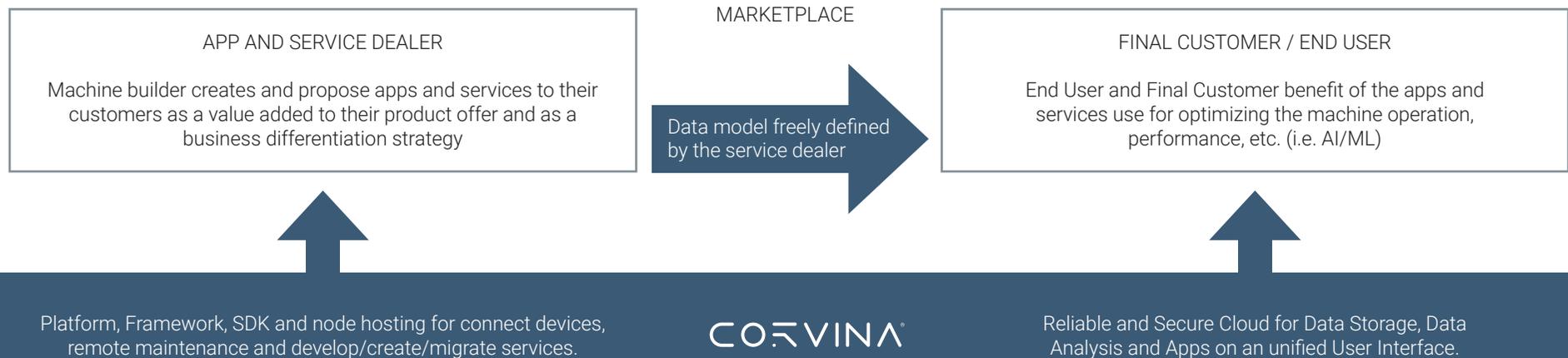
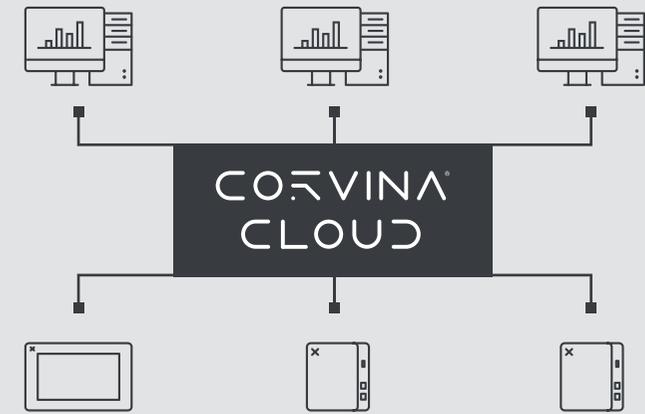
Apps and Marketplace

CORVINA allows to implement and deploy services and apps inside the platform as internal tools or as value added or market differentiator for the product. A unique access to the Cloud platform allows tenants to access to their application, service or complex analytics in a uniformed and harmonic visualization. There is no limit in the application and service that can be implemented.

LEGACY SERVICES



APPS AND SERVICES WITH CORVINA



Applications

Overview of the CORVINA applications so far.

Remote
Access VPN



Industrial Fleet
Management



Advanced
Documentation



Predictive
Maintenance



Remote Monitoring



Condition Monitoring



Lean Machine Analytics



Energy Efficiency



Performance
Consultancy



Shift
Management



Custom Apps

Future Apps



HARDWARE

EXOS



Embedded



EMBEDDED
SYSTEMS

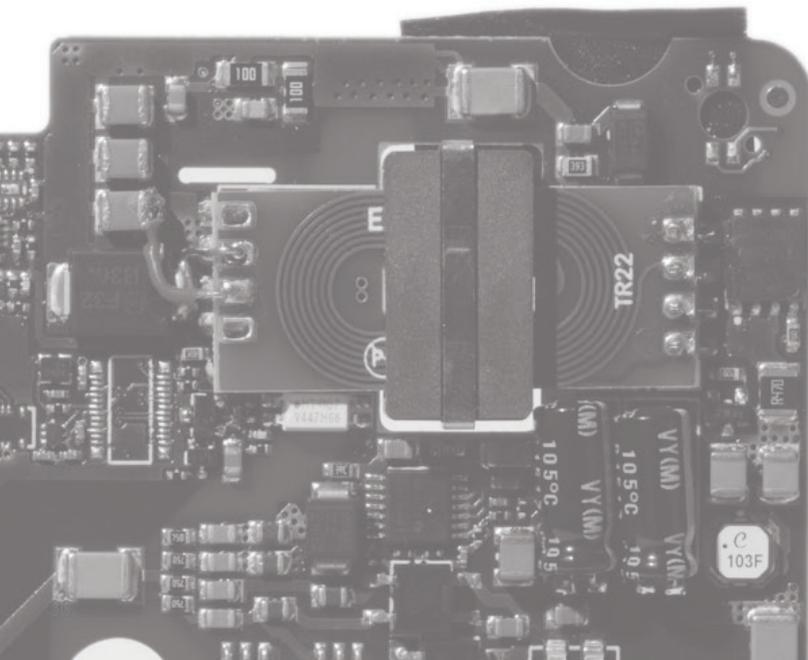


gS01 - GigaSOM

gS02 - GigaSOM Preliminary

CPU	Intel® Atom E39XX Quad or Dual cores	Intel® Elkhart Lake X6427FE Quad core 1,9 GHz (burst 2,6 GHz)
FPGA	Intel® Cyclone 10 GX up to 220 KLE	Intel® Arria® 10 GX FPGA up to 220 KLE
DDR	LPDDR4 up to 8 Gbytes for CPU and DDR3 up to 2 GBytes for FPGA	LPDDR4 up to 16 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	64 Gbytes eMMC Flash for CPU, 1 Gbit QSPI Flash for FPGA
FRAM	64 Kbytes via CPU side	64 Kbytes via CPU side
EEPROM	256 Bytes x 8 via CPU	256 Bytes x 8 via CPU
Video interfaces	eDP / HDMI / DP / MIPI-DSI via CPU side	eDP / HDMI / DP / MIPI-DSI via CPU side
Audio	HDA and I2S via CPU side	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)	7 (USB 2.0), 4 (USB 3.0), 2 (SATA3), 2 (SGMII), 6 PCIe
CPU low speed interfaces	SMB bus, 5 (I2C), 3 (UART), SPI, LPC, SDIO, SD card, GPIO	SMB bus, 5 (I2C), 5 (UART), 3 (SPI), GPIO, 2 (RGMII), 50 XC
FPGA high speed interfaces	34 LVDS pairs plus six 10Gb transceivers (support for FMC LPC and LPC+)	38 LVDS pairs plus four 10 Gb transceivers (support for FMC LPC and LPC+, or GPIO)
FPGA low speed interfaces	2 (CAN), 3 (SPI), 2 (I2C), 1 (UART), 1 (GPIO)	(GPIO)
Interface CPU-FPGA	Dual Lane Gen 2 PCIe	Dual Lane Gen 2 PCIe
FPGA image configuration	Configurable via CPU	1 Gbit QSPI, configurable via CPU
Power supply	5V, consumption up to 15W depending on FPGA type and configuration	12V, 3V3, consumption up to 18W, depending on FPGA type and configuration
Temperature range	-40°C to +85°C	-40°C to +85°C
Dimensions	81,6 x 54 x 4,9 mm	81,6 x 54 x 4,9 mm
Connector	294 plated half holes, 0,9 mm pitch - 157 bottom plated pads, 1 mm pitch	294 plated half holes, 0,9 mm pitch - 157 bottom plated pads, 1 mm pitch
Ordering Code	+GS01-0002: Intel® Atom E3940, 8GB LPDDR4, 64GB Flash, -40 to +85°C +GS01-0003: Intel® Atom E3930, 4GB LPDDR4, 32GB Flash, Cyclone 10GX 85KLE, -40 to +85°C +GS01-0004: Intel® Atom E3940, 8GB LPDDR4, 64GB Flash, Cyclone 10GX 220KLE, -40 to +85°C +EE16EK-0011: gigaSOM gS01 Development Kit	+GS02-0001: GigaSOM gS02 - Highly innovative, high performance very efficient, ultra compact SOM.

Software configurable. Not all selections can be combined.





	uS01 - MicroSOM	uS02 - MicroSOM	uS03 - MicroSOM	uS04 - MicroSOM	uS05 - MicroSOM	uS06 - MicroSOM
CPU	TI Sitara AM3352/AM3354 up 1 GHz	Intel 5CSEBA2 (A6) Dual ARM Cortex - A9 925 MHz	i.MX6DL DualLite up to 800 MHz, i.MX6Q Quad up to 800 MHz	i.MX8M Mini Quad/Dual ARM Cortex-A53 at 1.6 Ghz	Intel 5CSEBA6 Dual ARM Cortex - A9 925 MHz	i.MX8M Plus Quad/Dual ARM Cortex-A53 + Cortex-M7 and 2D/3D GPU
FPGA	-	25/110 KLE	-	-	110 KLE	-
DDR	Up 512 Mbytes DDR3L	1 Gbyte DDR3L	Up to 2 GBytes high performance, LVDDRAM2 Dual Channel mode (2x32 bit)	Up to 2 Gb LPDDR4 x32	1 Gbyte DDR3L	Up to 4 Gb LPDDR4 x32
Flash Disk	Up to 4 Gbytes eMMC (2MB min. of boot sectors)	Up to 8 Gbytes eMMC (2MB min. of boot sectors)	eMMC 5.0, up to 32 GB (2MB min. of boot sectors)	4 GByte eMMC / 256 Mbits (2MB min. of boot sectors)	Up to 8 Gbytes eMMC (2MB min. of boot sectors)	Up to 32GB eMMC (2MB min. of boot sectors)
EEPROM	4 Kbits	4 Kbits	4 Kbits	4 Kbits	4 Kbits	4 Kbits
FRAM	64 Kbytes (optional)	64 Kbytes	64-Kbytes (optional)	64 Kbytes	64-Kbytes	64-Kbytes
Watchdog/RTC/Voltage monitor	Yes	Yes	Yes	Yes	Yes	Yes
USB	2 (Host V2.0)	2 (Host V2.0) or 1 (OTG)	2 (Host V2.0), 1 (OTG)	1 (OTG 2.0), 2 (Host 2.0)	2 (Host V2.0) or 1 (OTG)	1 (OTG 2.0), 2 (Host 2.0)
Ethernet	2 (RMII ports 10/100 Mb)	2 (RMII ports 10/100 Mb)	1 (RMII 10/100 Mb) or 1 (RGMII 10/100/1000 Mb)	US04-0001 (RMII port 10/100 Mb)	4 (RGMII 10/100/1000 Mb Ethernet MAC)	1 (RGMII 10/100/1000 Mb), 1x (RMII 10/100 Mb)
TSN	Not Available	Not Available	Not Available	Not Available	3 Ports Ethernet TSN Switch (RGMII)	Yes
SD	1	1	2	1	1	1
SDIO	-	-	-	-	-	1(4 bits SD card support) via CPU
SPI	2	2	2	2	2	2
QSPI	-	-	-	2 (or 1x 8bit NAND)	-	2 (or 1x 8bit NAND)
PCIe	-	-	1x PCIe 1.0	1X PCIe 2.0	-	1X PCIe 3.0
I2C	1	1	1	2	1	2
CAN	2*	2	2	2 using onboard SPI/CAN bridges	2	2 (CAN FD)
UART	3*	3	3	3 UARTS (4 lines)	3	3
Audio	1 (I2S Channel)	No (I2S can be implemented via FPGA)	1 (I2S Channel)	1 (I2S Channel)	No (I2S can be implemented via FPGA)	1 (I2S Channel)
Video Output	1x (RGB 24 bit)	1x (RGB 24 bit)	1x (RGB 24 bit), 1x (LVDS Dual Ch.), 1x (HDMI 1.4), 1 (MIPI DSI)	1x (LVDS Dual Ch.)	1x (RGB 24 bit)	1x (LVDS Dual Ch.), 1x (HDMI 1.4), 1 (MIPI DSI)
Video Input	-	Digital Interface ITU656	1x (MIPI CSI 4 lanes), 1x (parallel up tp 12bits)	1x (MIPI CSI 4 lanes)	Digital Interface ITU656	1x (MIPI CSI 4 lanes)
GPIO	19, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.	Several GPIO available depending of FPGA configuration, 2 LVDS I/O with 5 lanes each, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.	27, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.	15 signals from CPU and 13 signals from on board I2C extenders, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.	Several GPIO available depending of FPGA configuration, 2 LVDS I/O with 5 lanes each, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.	34, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.
Analog input	5	5	5	5 single ended channels, 12bits, 1V8 Max	5	5
Security features	Crypto Hardware Accelerators (AES, SHA, PKA, RNG)	-	Arm TrustZone (TZ) architecture, CAAM, HAB secure boot, RSA up to 2048, 3DES, ARC4, MD-5, SHA up to 256, secure JTAG	HAB secure boot, TrustZone, True RNG, RSA up to 4096, AES-128/192/256, 3DES, ARC4, MD-5, SHA up to 256, ECC, secure JTAG	-	HAB secure boot, TrustZone, True RNG, RSA up to 4096, AES-128/192/256, 3DES, ARC4, MD-5, SHA up to 256, ECC, secure JTAG
Power Supply	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup
Dimensions	46x35 mm	46x35 mm	46x35 mm	46x35 mm	46x35 mm	46x35 mm
Temperature Range	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to 85°C	-40°C to +85°C	-40°C to +85°C
Ordering Code	+US01-0001: AM3354 1Ghz, 512MB DDR3, 4 GB Flash, -40 to +85°C +EE16EK-0002: microSOM uS01 Development Kit	+US02-0001: 110 KLE, 1GB DDR3, 4 GB Flash, -40 to +85°C +AL15EK-0001: microSOM uS02 Development Kit	+US03-0001: i.MX6 DualLite 800Mhz, 1GB DDR, 4GB Flash, -40 to +85°C +US03-0002: i.MX6 Quad 800Mhz, 2GB DDR, 8GB Flash, -40 to +85°C +EE16EK-0001: microSOM uS03 Development Kit	+US04-0001: i.MX8M Mini, 2 GB LPDDR4, 8GB, RMII, -40 to +85°C	+US05-0001: 110 KLE, 1GB DDR3, 4 GB Flash, TSN Support, -40 to +85°C +EE16EK-0008: microSOM uS05 Development Kit	+US06-0001: i.MX8M Plus, 2GB LPDDR4, 8GB Flash -40 to +85°C

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



uS10 - MicroSOM

uS11 - MicroSOM Preliminary

CPU	i.MX 8M Plus - Quad/Dual ARM Cortex-A53	Intel Agilex® 5 (2 x ARM Cortex-A76 and 2 x ARM Cortex-A55)
FPGA	Lattice ECP5UM-85	Up to 650K logic elements and 4 high speed transceivers
DDR	LPDDR4 x32 @ 3000 MT / up to 6 GB via CPU	LPDDR4 x32 @ 3200 MT / up to 6 GB via CPU
Flash Disk	Up to 32GB eMMC (2MB min. of boot sectors), 4x QSPI 32MB	Up to 64GB eMMC (2MB min. of boot sectors), 1x QSPI 256MB
EEPROM	256 Bytes x 8 via CPU	256 Bytes x 8 via CPU
FRAM	512 kbit via CPU	512 kbit via CPU
Watchdog/RTC/Voltage monitor	Yes	Yes
USB	2 (USB 2.0 Host), 1(usb 2.0 OTG), 1(USB 3.0) via CPU	1 (USB 2.0 Host) and 1(USB 3.x) via CPU
Ethernet	1 (RGMII 10/100/1000Mb) via CPU, 3 (RGMII 10/100/1000Mb) via FPGA	3 (RGMII 10/100/1000Mb) via CPU and 1 via FPGA
TSN	Not Available	3 Ports Ethernet TSN Switch (RGMII)
SD	1	1(4 bits SD card support) via FPGA
SDIO	1(8 bits)	-
SPI	3 ESPI	2 via CPU in master mode
QSPI	1	-
PCIe	1 Lane Gen 3 via CPU	4 Lanes Gen 3.x via CPU
I2C	5 I2C via CPU	2 I2C via CPU
CAN	2 CAN FD via CPU	No (Can be implemented via FPGA)
UART	3 (4 lane), 1 (2 lane) via CPU	2 (4 lane) via CPU and 1 (4 lane) via FPGA
Audio	2 I2S, SPDIF via CPU	No (I2S can be implemented via FPGA)
Video Output	1x (LVDS Dual Ch.), 1x (HDMI 1.4), 1 (MIPI DSI)	24bit RGB LCD controller via FPGA
Video Input	1x (MIPI CSI 4 lanes)	-
GPIO	11 GPIO via CPU, 47 GPIO via FPGA, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.	12 GPIO via FPGA. 1 via CPU and 6 from I2C expander, reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.
Analog Inputs	5 single ended channels, 12bits via CPU	5 single ended channels, 12bits via CPU
Security features	HAB secure boot, TrustZone, True RNG, RSA up to 4096, AES-128/192/256, 3DES, ARC4, MD-5, SHA up to 256, ECC, secure JTAG with additional LCMXO3D-9400HE-6UTG69I Root-of-Trust and Dual Boot Capabilities	SDM Manages FPGA configuration process and all security features, HPS boot, bitstream encryption, secure key provisioning, PUF key storage, hardened cryptographic engines as a service
Power Supply	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup
Dimensions	46 x 35 x 3,7 mm	46 x 35 x 3,6 mm
Temperature Range	-40°C to +85°C	-40°C to +85°C
Ordering Code	+US10-0001: i.MX8M Plus Quad ARM - ECP5UM-85 - 2GB LPDDR4 - 8GB eMMC - Operating Temp. -40 to +85°C +US10-0002 :i.MX8M Plus Quad ARM - ECP5UM-85 - 2GB LPDDR4 - MachXO3D - 8GB eMMC - Operating Temp. -40 to +85°C	+US11-0001: Intel Agilex® 5 - 4GB LPDDR4 - 8GB eMMC - Operating Temp. -40 to +85°C

Software configurable. Not all selections can be combined.



	nS01 - NanoSOM	nS02 - NanoSOM	nS04 - NanoSOM	nS06 - NanoSOM
CPU	NXP i.MX6 UltraLite 528 Mhz - ARM Cortex-A7 MPCore with TrustZone and NEON Media Processor unit.	STM32MP157 up to 800 Mhz Dual Cortex-A7 plus M4 MPU with 3D GPU.	i.MX 8M Mini - Quad/Dual ARM Cortex-A53 + Cortex-M4 and 2D/3D GPU	i.MX 8M Mini - Quad/Dual ARM Cortex-A53 + Cortex-M4 and 2D/3D GPU
DDR	Up to 1 GByte high performance DDR3L	Up to 1 GByte high performance DDR3L	Up to 1 GByte high performance DDR3L	Up to 4 GByte high performance LPDDR4
Flash Disk	Up to 32 GByte eMMC Flash	Up to 32 GByte eMMC Flash	Up to 32 GByte eMMC Flash	Up to 32 GByte eMMC Flash
EEPROM	512 Bytes x 8	512 Bytes x 8	256 Bytes x 8	256 Bytes x 8
RTC	Yes, Battery or SuperCAP backup	Yes, Battery or SuperCAP backup	Yes, Battery or SuperCAP backup	Yes, Battery or SuperCAP backup
Watchdog/RTC/Voltage monitor/JTAG	Yes	Yes	Yes	Yes
USB	2 (Host V2.0), 1 (OTG)	2 (Host V2.0), 1 (OTG)	1 (Host V2.0), 1 (OTG)	1 (Host V2.0), 1 (OTG)
Ethernet	2 (RMII ports 10/100Mb MAC IEEE1588)	1 (RMII 10/100Mb MAC IEEE1588) and 1 (10/100Mb Direct Line Interface)	1 (RMII 10/100Mb MAC IEEE1588)	1 (RMII 10/100Mb MAC IEEE1588)
SD	1	1	1	1
SDIO	-	1 (4bits)	1 (4/8 bits)	1 (4/8 bits)
SPI	4	4	3	3
QUAD SPI	-	-	1	1
PCIe	-	-	1X PCIe 2.0	1X PCIe 2.0
I2C	1	1	1	1
CAN	2	2	-	-
UARTs	3	3	2 (full - 4 lines), 1 (2 lines, TX, RX), 1 SPI configured as UART	2 (full - 4 lines), 1 (2 lines, TX, RX), 1 SPI configured as UART
Audio	1 (I2S Channel)	1 (I2S Channel)	1 (I2S Channel)	1 (I2S Channel)
PCIe	-	-	1 lane	1 lane
Video Output	1x (RGB 24 bit)	1x (RGB 24 bit) or 1x (MIPI DSI 2 lane)	1x (MIPI DSI 4 lanes)	1x (MIPI DSI 4 lanes)
Video Input	8 bits parallel camera (shared with some peripherals)	8, 10, 12 bits parallel camera	1x (MIPI CSI 4 lanes)	1x (MIPI CSI 4 lanes)
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.	More Analog Inputs and several programming GPIO signals with interrupt capability. Reserved pins for Power-Fail, Power Good, Reset IN, Reset Out functions.	GPIO signals with interrupt capability. Reserved pins for Power-Fail, Power Good, Reset IN, reset Out functions.	GPIO signals with interrupt capability. Reserved pins for Power-Fail, Power Good, Reset IN, reset Out functions.
Security features	Optional Advanced Security functions ARM TrustZone with optional 10 Tamper pads	Secure boot, Trust Zone IPs	Secure boot, Trust Zone IPs	Secure boot, Trust Zone IPs
Power Supply	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup	Single 3,3 Volt / VBB for RTC Backup
Temperature Range	Commercial 0 to +70°C / Industrial -40 to +85°C	Commercial 0°C to 70°C / Industrial -40°C to +85°C	Commercial 0°C to 70°C / Industrial -40°C to +85°C	Commercial 0°C to 70°C / Industrial -40°C to +85°C
Dimensions	25,4x25,4 mm	25,4x25,4 mm	25,4x25,4 mm	25,4x25,4 mm
Ordering Code	+NS01-0001: i.MX6 UltraLite 528Mhz, 256MB DDR3L, 4GB Flash, 0 to +70°C +NS01-0002: i.MX6 UltraLite 528Mhz, 512MB DDR3L, 4GB Flash, -40 to +85°C +EE16EK-0005: nanoSOM nS01 Development Kit	+NS02-0001: STM32MP157 up to 800Mhz, 256MB DDR3L, 4GB Flash, -40 to +85°C +NS02-0002: STM32MP157 up to 800Mhz, 512MB DDR3L, 4GB Flash, -40 to +85°C +NS02-0003: STM32MP157 up to 800Mhz, 1GB DDR3L, 8GB Flash, -40 to +85°C	+NS04-0001: i.MX8M Mini, 1GB DDR3L, 8GB flash -40 to +85°C	+NS06-0001: i.MX8M Mini, 2GB LPDDR4, 8GB flash -40 to +85°C

Software configurable. Not all selections can be combined.



eX700M Series



INDUSTRIAL
HMI



RUGGED
HMI



IOT CONTROL
HMI



MARINE &
OFFSHORE

eX707M

System Resources	
Display - Colors	7" TFT - 16M
Resolution	800x480
Brightness	500 cd/m ² typ.
Dimming	Yes
Touchscreen	Projected Capacitive, Multitouch
CPU	64-bit RISC quad core - 1.6 GHz
Operating System	Linux
Flash	8 GB
RAM	2 GB
FRAM	64 KB
RTC, 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 Temperature	-20° to +60 °C (vertical installation). Plug-in and USB devices may limit max temperature to +50 °C
Storage Temperature	-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	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
ATEX	Zone 2/22: II 3 G Ex ec IIC T5...T4 Gc, II 3 D Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C"
IECEx	Zone 2/22: Ex ec IIC T5...T4 Gc, Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C"
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
DNV	Yes
RCM	Yes
Part Number	+EX707MU5P1
Ordering Code	101004800U-0000-04



	eX710M	eX712M	eX715M	eX721M
System Resources				
Display - Colors	10.1" TFT - 16M	12.3" TFT - 16M	15.6" TFT - 16M	21,5" TFT - 16M
Resolution	1280x800	1920x720	1366x768	1920x1080
Brightness	500 cd/m ² typ.	600 cd/m ² typ.	400 cd/m ² typ.	300 cd/m ² typ.
Dimming	Yes	Yes	Yes	Yes
Touchscreen	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch
CPU	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6 GHz
Operating System	Linux	Linux	Linux	Linux
Flash	8 GB	8 GB	8 GB	8 GB
RAM	2 GB	2 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB	64 KB
RTC, RTC Back-up, Buzzer	Yes	Yes	Yes	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)	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	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	Yes	Yes	Yes
Expansion	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules
Ratings				
Power supply	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)
Current Consumption	1.0 A at 24 Vdc (max.)	1.1 A at 24 Vdc (max.)	1.2 A at 24 Vdc (max.)	1.7 A at 24 Vdc (max.)
Input Protection	Electronic	Electronic	Electronic	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable			
Environment Conditions				
Operating Temperature	-20° to +60 °C (vertical installation). Plug-in and USB devices may limit max temperature to +50 °C			
Storage Temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X
Dimensions and Weights				
Faceplate LxH	282x197 mm (11.10x7.80")	344.5x163 mm (13.56x6.41")	422x267 mm (16.6x10.5")	552x347 mm (21.7x13.66")
Cutout AxB	271x186 mm (10.67x7.32")	332.5x152 mm (13.09x5.94")	411x256 mm (16.18x10")	541x336 mm (21.3x13.22")
Depth D+T	56+8 mm (2.20+0.31")	49+8.5 mm (1.92+0.33")	56+8 mm (2.20+0.31")	56+8 mm (2.20+0.31")
Weight	2.5 Kg	1.8 Kg	4.1 Kg	6.1 Kg
Approvals				
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)			
ATEX	Zone 2/22: II 3 G Ex ec IIC T5...T4 Gc, II 3 D Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C			
IECEX	Zone 2/22: Ex ec IIC T5...T4 Gc, Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C			
UL	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2
DNV	Yes	Yes	Yes	Yes
RCM	Yes	Yes	Yes	Yes
Part Number	+EX710MU5P1	+EX712MU5P1	+EX715MU5P1	+EX721MU5P1
Ordering Code	101004800U-0001-02	101004800U-0004-02	101004800U-0002-02	101004800U-0003-02



eX700 Series



INDUSTRIAL
HMI



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IOT CONTROL
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MARINE &
OFFSHORE

eX705

System Resources	
Display - Colors	5" TFT - 64K
Resolution	800x480, WVGA
Brightness	300 Cd/m ² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive, Multitouch
CPU	32-bit RISC single core - 1 GHz
Operating System	Linux RT
Flash	4 GB
RAM	512 MB
FRAM	64 KB
RTC, 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 Temperature	-20° to +60 °C (vertical installation). Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temperature	-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	Electromagnetic Compatibility Directive 2014/30/EU (EMC) Zone 2/22: II 3 G Ex ec IIC T5...T4 Gc, II 3 D Ex tc IIIC T95°C
ATEX	Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C
IECEX	Zone 2/22: Ex ec IIC T5...T4 Gc, Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
DNV	Yes
LR, EU RO MR	Yes
RCM	Yes
Part Number	+EX705U5P1
Ordering Code	101000100U-0000-06



	eX707	eX710	eX712	eX715	eX721
System Resources					
Display - Colors	7" TFT - 16M	10.1" TFT - 16M	12.3" TFT - 16M	15.6" TFT - 16M	21.5" TFT - 16M
Resolution	800x480, WVGA	1280x800, WXGA	1920x720, HD	1366x768, HD	1920x1080, full HD
Brightness	500 Cd/m ² typ.	500 Cd/m ² typ.	600 Cd/m ² typ.	400 Cd/m ² typ.	300 Cd/m ² typ.
Dimming	to 0%	to 0%	to 0%	to 0%	to 0%
Touchscreen	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch
CPU	32-bit RISC dual core - 800 MHz	32-bit RISC dual core - 800MHz	32-bit RISC quad core - 800MHz	32-bit RISC quad core - 800MHz	32-bit RISC quad core - 800MHz
Operating System	Linux RT	Linux RT	Linux RT	Linux RT	Linux RT
Flash	4 GB	4 GB	8 GB	8 GB	8 GB
RAM	1 GB	1 GB	2 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB	64 KB	64 KB
RTC, RTC Back-up, Buzzer	Yes	Yes	Yes	Yes	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)	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	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	Yes	Yes	Yes	Yes
Expansion	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules
Ratings					
Power supply	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)	1.0 A at 24 Vdc (max.)	1.1 A at 24 Vdc (max.)	1.2 A at 24 Vdc (max.)	1.7 A at 24 Vdc (max.)
Input Protection	Electronic	Electronic	Electronic	Electronic	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable				
Environment Conditions					
Operating Temperature	-20° to +60 °C (vertical installation). Plug-in modules and USB devices may limit max temperature to +50 °C				
Storage Temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X
Dimensions and Weights					
Faceplate LxH	187x147 mm (7.36x5.79")	282x197 mm (11.10x7.80")	344.5x163 mm (13.56x6.41")	422x267 mm (16.6x10.5")	552x347 mm (21.7x13.66")
Cutout AxB	176x136 mm (6.93x5.35")	271x186 mm (10.67x7.32")	332.5x152 mm (13.09x5.94")	411x256 mm (16.18x10")	541x336 mm (21.3x13.22")
Depth D+T	47+8 mm (1.85+0.31")	56+8 mm (2.20+0.31")	49+8.5 mm (1.92+0.33")	56+8 mm (2.20+0.31")	56+8 mm (2.20+0.31")
Weight	1.5 Kg	2.5 Kg	1.8 Kg	4.1 Kg	6.1 Kg
Approvals					
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)				
ATEX	Zone 2/22: II 3 G Ex ec IIC T5...T4 Gc, II 3 D Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C				
IECEX	Zone 2/22: Ex ec IIC T5...T4 Gc, Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C				
UL	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2
DNV	Yes	Yes	Yes	Yes	Yes
LR, EU RO MR	Yes	Yes	-	Yes	Yes
RCM	Yes	Yes	Yes	Yes	Yes
Part Number	+EX707U5P1	+EX710U5P1	+EX712U5P1	+EX715U5P1	+EX721U5P1
Ordering Code	101000100U-0005-07	101000100U-0009-06	101000100U-0027-03	101000100U-0013-05	101000100U-0017-05

JSmart700M Series



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	JSmart707M	JSmart710M	JSmart715M	JSmart721M
System Resources				
Display - Colors	7" TFT - 16M	10.1" TFT - 16M	15.6" TFT - 16M	21.5" TFT - 16M
Resolution	1024x600	1280x800	1366x768	1920x1080
Brightness	400 cd/m ² typ.			
Dimming	Yes	Yes	Yes	Yes
Touchscreen	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch
CPU	64-bit RISC Quad core - 1.6 GHz			
Operating System	Linux	Linux	Linux	Linux
Flash	8 GB	8 GB	8 GB	8 GB
RAM	2 GB	2 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB	64 KB
RT-Clock, RTC Back-up	Yes	Yes	Yes	Yes
Interface				
Ethernet port	10/100 PoE	10/100 PoE	10/100 PoE	10/100 PoE
USB port	1 (Host V2.0, max. 500 mA, available with special cable)	1 (Host V2.0, max. 500 mA, available with special cable)	1 (Host V2.0, max. 500 mA, available with special cable)	1 (Host V2.0, max. 500 mA, available with special cable)
LED	1 RGB	1 RGB	1 RGB	1 RGB
Sensors	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer
Buzzer	Yes	Yes	Yes	Yes
NFC	ISO/IEC 14443A	ISO/IEC 14443A	ISO/IEC 14443A	ISO/IEC 14443A
Wi-Fi	IEEE 802.11a/b/g	IEEE 802.11a/b/g	IEEE 802.11a/b/g	IEEE 802.11a/b/g
Ratings				
Power supply	IEEE 802.3af PoE	IEEE 802.3af PoE	IEEE 802.3at PoE+	IEEE 802.3bt 4PPoE
Power Consumption	12W max.	14W max.	23W max.	35W max.
Battery	Rechargeable Lithium battery, not user-replaceable			
Environment Conditions				
Operating Temperature	-20° to +55° C (vertical installation)			
Storage Temperature	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing	5-85% RH, non-condensing	5-85% RH, non-condensing	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x
Dimensions and Weights				
Faceplate LxH	195.2x131.6 mm (7.68x5.18")	264.5x183.1 mm (10.41x7.20")	398.6x248 mm (15.69x 9.76")	534.1x325.6 mm (21.02x 12.81")
Depth D	16.5 mm (0.6")	16.5 mm (0.6")	26.5 mm (1.04")	26.5 mm (1.04")
Weight	0.7 Kg	1.2 Kg	4.0 Kg	6.0 Kg
Approvals				
CE	Radio Equipment Directive 2014/53/EU (RED)			
UL	cULus: UL61010-1 / UL61010-2-201			
UL	cULus: Class 1 Div 2			
DNV	To be planned	To be planned	To be planned	To be planned
RCM	Yes	Yes	Yes	Yes
Part Number	+JS707GB2U5P1	+JS710GC2U5P1	+JS715GD2U5P1	+JS721GE2U5P1
Ordering Code	101004300U-0008-01	101004300U-0009-02	101004300U-0010-01	101004300U-0011-01



JSmart700 Series



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JSmart705

System Resources	
Display - Colors	5" TFT – 16M
Resolution	800x480
Brightness	300 cd/m ² typ.
Dimming	to 0%
Touchscreen	Projected Capacitive – Multitouch
CPU	32-bit RISC dual core - 800 MHz
Operating system	Linux RT
Flash	4 GB
RAM	1 GB
FRAM	64 KB
RT-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	No
Buzzer	Yes
Ratings	
Power supply	IEEE 802.3af PoE
Power Consumption	6 W max.
Battery	Yes (rechargeable)
Environment Conditions	
Operating Temperature	-20° to +55° C (vertical installation)
Storage Temperature	-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	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
UL	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2
DNV	Yes
RCM	Yes
Part Number	+JS705BA0U5P1
Ordering Code	10100040BL-0003-02



	JSmart707	JSmart710	JSmart715	JSmart721
System Resources				
Display - Colors	7" TFT – 16M	10.1" TFT – 16M	15.6" TFT – 16M	21.5" TFT – 16M
Resolution	1024x600	1280x800	1366x768	1920x1080
Brightness	400 cd/m ² typ.			
Dimming	to 0%	to 0%	to 0%	to 0%
Touchscreen	Projected Capacitive – Multitouch			
CPU	32-bit RISC dual core - 800 MHz	32-bit RISC dual core - 800 MHz	32-bit RISC quad core - 800 MHz	32-bit RISC quad core - 800 MHz
Operating system	Linux RT	Linux RT	Linux RT	Linux RT
Flash	4 GB	4 GB	8 GB	8 GB
RAM	1 GB	1 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB	64 KB
RT-Clock, RTC Back-up	Yes	Yes	Yes	Yes
Interface				
Ethernet port	10/100 PoE	10/100 PoE	10/100 PoE	10/100 PoE
USB port	1 (Host V2.0, max. 50 mA, available with special cable)	1 (Host V2.0, max. 50 mA, available with special cable)	1 (Host V2.0, max. 50 mA, available with special cable)	1 (Host V2.0, max. 50 mA, available with special cable)
LED	1 RGB	1 RGB	1 RGB	1 RGB
Sensors	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer
Wi-Fi	IEEE 802.11a/b/g	IEEE 802.11a/b/g	IEEE 802.11a/b/g	IEEE 802.11a/b/g
Buzzer	Yes	Yes	Yes	Yes
Ratings				
Power supply	IEEE 802.3af PoE	IEEE 802.3af PoE	IEEE 802.3at PoE+	IEEE 802.3bt 4PPoE
Power Consumption	12 W max.	14 W max.	23 W max.	35 W max.
Battery	Yes (rechargeable)	Yes (rechargeable)	Yes (rechargeable)	Yes (rechargeable)
Environment Conditions				
Operating Temperature	-20° to +55° C (vertical installation)			
Storage Temperature	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing	5-85% RH, non-condensing	5-85% RH, non-condensing	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x
Dimensions and Weights				
Faceplate LxH	195.2x131.6 mm (7.68x5.18")	264.5x183.1 mm (10.41x7.20")	398.6x248 mm (15.69x 9.76")	534.1x325.6 mm (21.02x 12.81")
Depth D+T+T	16.5 mm (0.06")	16.5 mm (0.06")	26.5 mm (1.04")	26.5 mm (1.04")
Weight	0.7 Kg	1.2 Kg	4.0 Kg	6.0 Kg
Approvals				
CE	Radio Equipment Directive 2014/53/EU (RED)			
UL	cULus: UL61010-1 / UL61010-2-201			
UL	cULus: Class 1 Div 2			
DNV	Yes	Yes	Yes	Yes
RCM	Yes	Yes	Yes	Yes
Part Number	+JS707BB1U5P1	+JS710BC1U5P1	+JS715CD1U5P1	+JS721CE1U5P1
Ordering Code	101000400U-0001-02	101000400U-0004-03	101000400U-0008-02	101000400U-0010-02

eX200 Series



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	eX205	eX207	eX210	eX215
System Resources				
Display - Colors	5" - 16.7M	7" - 16.7M	10.1" - 16.7M	15.6" - 16.7M
Resolution	800x480	1024x600	1280x800	1920x1080
Brightness	400 Cd/m2 typ.	400 Cd/m2 typ.	400 Cd/m2 typ.	350 Cd/m2 typ.
Dimming	Yes	Yes	Yes	Yes
Touchscreen	Projected Capacitive - Multitouch			
CPU	64-bit RISC quad core - 1.6GHz			
Operating System	Linux	Linux	Linux	Linux
Flash	4 GB (pSLC mode)	4 GB (pSLC mode - High reliability)	4 GB (pSLC mode - High reliability)	4 GB (pSLC mode - High reliability)
RAM	2 GB	2 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB	64 KB
Real Time Clock	Yes	Yes	Yes	Yes
RTC Back-up	Supercapacitor	Supercapacitor	Supercapacitor	Supercapacitor
Interface				
Ethernet port	2 (10/100 Mbit)	2 (10/100 Mbit)	2 (10/100 Mbit)	2 (10/100 Mbit)
USB port	1 (Host v. 2.0, max. 500 mA)			
Serial port	1 (RS-232, RS-485, RS-422, software configurable)			
CAN port	1 (Isolated)	1 (Isolated)	1 (Isolated)	1 (Isolated)
Buzzer	Yes	Yes	Yes	Yes
Indicator Light	1 (RGB LED)	1 (RGB LED)	1 (RGB LED)	1 (RGB LED)
Ratings				
Power supply	24 Vdc (9 to 32 Vdc)			
Current Consumption	0.35 A max. at 24 Vdc	0.4 A max. at 24 Vdc	0.5 A max. at 24 Vdc	0.75 A max. at 24 Vdc
Input Protection	Electronic	Electronic	Electronic	Electronic
Environment Conditions				
Operating Temperature	-20°C to +55°C (vertical installation)			
Storage Temperature	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing			
Protection Class	IP66 (front), IP20 (rear)			
Dimensions and Weights				
Faceplate LxH	147x107 mm (5.79x4.21")	187x147 mm (7.36x5.79")	282x197 mm (11.10x7.76")	422x267 mm (16.61"x10.51")
Cutout AxB	136x96 (5.35"x3.78")	176x136 mm (6.93x5.35")	271x186 mm (10.67x7.32")	411x256 mm (16.18"x10.08")
Depth D+T	29+8 mm (1.14+0.31")	29+8 mm (1.14+0.31")	29+8 mm (1.14+0.31")	35+10 mm (1.38"+0.39") mm
Weight	0.5 Kg	0.7 Kg	1.3 Kg	3.2 Kg
Approvals				
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)			
UL	cULus: UL61010-1 / UL61010-2-201 *			
RCM	Yes	Yes	Yes	Yes
Part Number	+EX205U501	+EX207U501	+EX210U501	+EX215U501
Ordering Code	101006200U-0000-01	101006200U-0002-01	101006200U-0004-01	101006200U-0006-01

* Roadmap 2024

eSMART Series



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eSMART04

System Resources	
Display - Colors	4.3" TFT 16:9 - 64K
Resolution	480x272
Brightness	200 Cd/m2 typ.
Dimming	Yes
Touchscreen	Resistive
CPU	32-bit RISC single core - 300 MHz
Operating System	Linux 3.12
Flash	2 GB
RAM	256 MB
RTC, 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	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
ATEX	Zone 2: II 3 G Ex ic ec IIC T6 Gc
UL	cULus: UL508
UL	cULus: Class 1 Div 2
DNV	Yes
EU RO MR	Yes
RCM	Yes
Part Number	+ESMA04U301
Ordering Code	101001300U-0002-03



	eSMART04M	eSMART07M	eSMART107	eSMART107B	eSMART10
System Resources					
Display - Colors	4.3" TFT 16:9 - 64K	7" TFT 16:9 - 64K	7" TFT 16:9 - 64K	7" TFT 16:9 - 64K	10.1" TFT 16:9 - 64K
Resolution	480x272	800x480, WVGA	800x480, WVGA	800x480, WVGA	1024x600, WVGA
Brightness	200 Cd/m2 typ.	200 Cd/m2 typ.	200 Cd/m2 typ.	200 Cd/m2 typ.	200 Cd/m2 typ.
Dimming	Yes	Yes	Yes	to 0%	Yes
Touchscreen	Resistive	Resistive	Resistive	Resistive	Resistive
CPU	32-bit RISC single core - 1 GHz	32-bit RISC single core - 1 GHz	32-bit RISC dual core - 800 MHz	32-bit RISC dual core - 800 MHz	32-bit RISC single core - 1 GHz
Operating System	Linux 3.12	Linux 3.12	Linux RT	Linux RT	Linux 3.12
Flash	4 GB	4 GB	4 GB	4 GB	4 GB
RAM	512 MB	512 MB	1 GB	1 GB	512 MB
RTC, RTC Back-up, Buzzer	Yes	Yes	Yes, Yes, No	Yes, Yes, No	Yes
Interface					
Ethernet port	1 (port 0 - 10/100)	1 (port 0 - 10/100)	2 (port 0 - 10/100/1000, port 1 - 10/100)	1 (port 0 - 10/100/1000)	1 (port 0 - 10/100)
USB port	1 (Host v. 2.0, max. 500 mA)	1 (Host v. 2.0, max. 500 mA)	2 (Host V2.0, max. 100 mA)	1 (Host V2.0, max. 100 mA)	1 (Host v. 2.0, max. 500 mA)
Serial port	1 (RS-232, RS-485, RS-422, software configurable)	1 (RS-232, RS-485, RS-422, software configurable)	2 (RS-232), 2 (RS-422/RS-485 isolated), 2 (CAN 2.0b isolated)	-	1 (RS-232, RS-485, RS-422, software configurable)
SD card	No	No	No	-	No
Expansion	No	No	No	-	No
Ratings					
Power supply	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)
Current Consumption	0.25 A max. at 24 Vdc	0.3 A at 24 Vdc (max.)	0.3 A at 24 Vdc (max.)	0.3 A at 24 Vdc (max.)	0.38 A at 24 Vdc (max.)
Input Protection	Automatic	Automatic	Automatic	Electronic	Automatic
Battery	Yes (Supercapacitor)	Yes (Supercapacitor)	Rechargeable battery, not user-replaceable	Rechargeable battery, not user-replaceable	Yes (Supercapacitor)
Environment Conditions					
Operating Temp	0 to 50 °C (vertical installation)	0 to 50 °C (vertical installation)	0 to +50°C (vertical installation)	0 to +50°C (vertical installation)	0 to 50 °C (vertical installation)
Storage Temp	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) Type: 2, 4X	IP66 (front), IP20 (rear) Type: 2, 4X	IP66 (front), IP20 (rear) Type: 2, 4X	IP66 (front); IP20 (rear) Type: 2, 4X	IP66 (front), IP20 (rear) Type: 2, 4X
Dimensions and Weights					
Faceplate LxH	147x107 mm (5.78x4.21")	187x147 mm (7.36x5.79")	187x147 mm (7.36x5.79")	187x147 mm (7.36x5.79")	282x197 mm (11.10x7.80")
Cutout AxB	136x96 mm (5.35x3.78")	176x136 mm (6.93x5.35")	176x136 mm (6.93x5.35")	176x136 mm (6.93x5.35")	271x186 mm (10.66x7.32")
Depth D+T	29+5 mm (1.14+0.19")	29+5 mm (1.14+0.19")	29+5 mm (1.14+0.19")	29+5 mm (1.14+0.19")	29+6 mm (1.14+0.23")
Weight	Approx 0.4 Kg	Approx 0.6 Kg	0.875 Kg	0.875 Kg	Approx 1.0 Kg
Approvals					
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)	Electromagnetic Compatibility Directive 2014/30/EU (EMC)	Electromagnetic Compatibility Directive 2014/30/EU (EMC)	Electromagnetic Compatibility Directive 2014/30/EU (EMC)	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
ATEX	Zone 2: II 3 G Ex ic ec IIC T6 Gc	Zone 2: II 3 G Ex ic ec IIC T6 Gc	-	-	Zone 2: II 3 G Ex ic ec IIC T6 Gc
UL	cULus: UL508	cULus: UL508	cULus: UL508	cULus: UL508	cULus: UL508
UL	cULus: Class 1 Div 2	cULus: Class 1 Div 2	-	-	cULus: Class 1 Div 2
DNV	Yes	Yes	Yes	-	Yes
EU RO MR	Yes	Yes	Yes	-	Yes
RCM	Yes	Yes	Yes	Yes	Yes
Part Number	+ESMA04MU301	+ESMA07MU301	+ESMA107U301	+ESMA107BU301	+ESMA10U301
Ordering Code	101001300U-0000-03	101001300U-0006-03	101001400U-0001-05	101001400U-0000-03	101001300U-0012-02



eXware & MicroEdge



INDUSTRIAL IOT
GATEWAY

MicroEdge Basic

System Resources	
CPU	32-bit RISC Single Core - 528 MHz
Operating System	Linux Yocto
Flash	4 GB
RAM	512MB
FRAM	64KB
Real Time Clock	Yes
RTC Back-up	Supercapacitor
Interface	
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100)
USB port	1 (2.0 OTG, 500mA max., Type C)
Serial port	1 (RS-485, isolated)
CAN/CAN-FD port	1 (isolated)
Expansion port	Yes
Buzzer	Yes
Indicator Light	1 (RGB LED)
Ratings	
Power supply	24 Vdc (9 to 32 Vdc)
Current Consumption	1.56 A at 24 Vdc (max.)
Input Protection	Electronic
Environment Conditions	
Operating Temp	-20° to +60 °C
Storage Temp	-30°C to +70°C
Operating / Storage Humidity	5-90% RH, non-condensing
Protection Class	IP20
Dimensions and Weight	
Height (H)	110 + 7 mm (4.33" + 0.28")
Width (W)	25.4 mm (1")
Depth (D)	75 mm (2.95")
Weight	0.140 Kg
Approvals	
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
FCC/IC	FCC Part 15 SubpartB Class A ICES-003 issue7 Class A
UL	cULus: UL61010-1 / UL61010-2-201
RCM	Yes
Part Number	+XME00U001
Ordering Code	102006700U-0000-01



eXware703

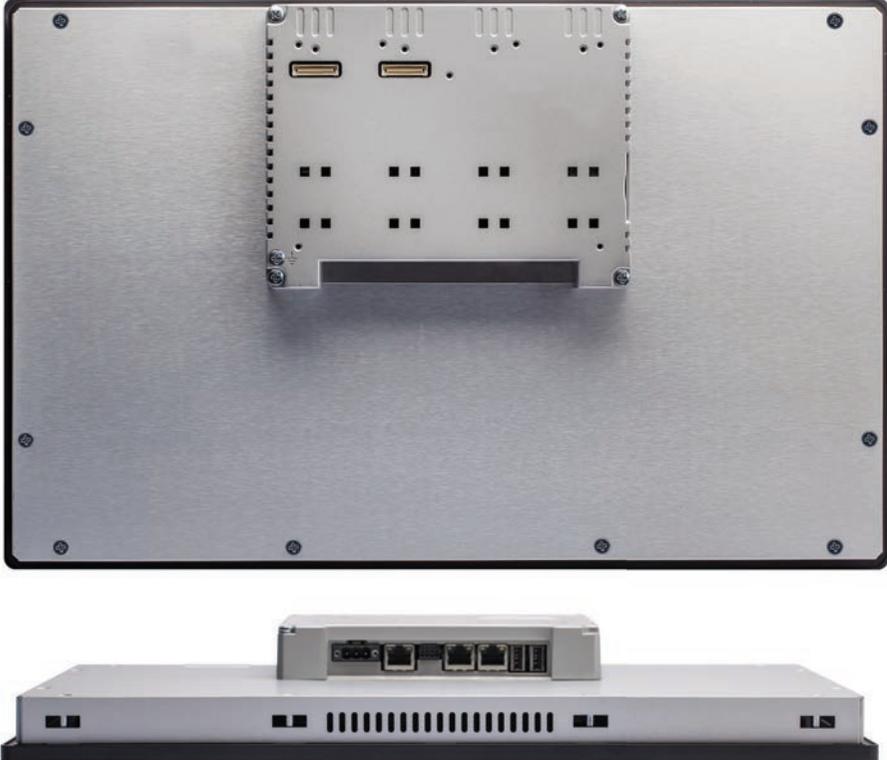
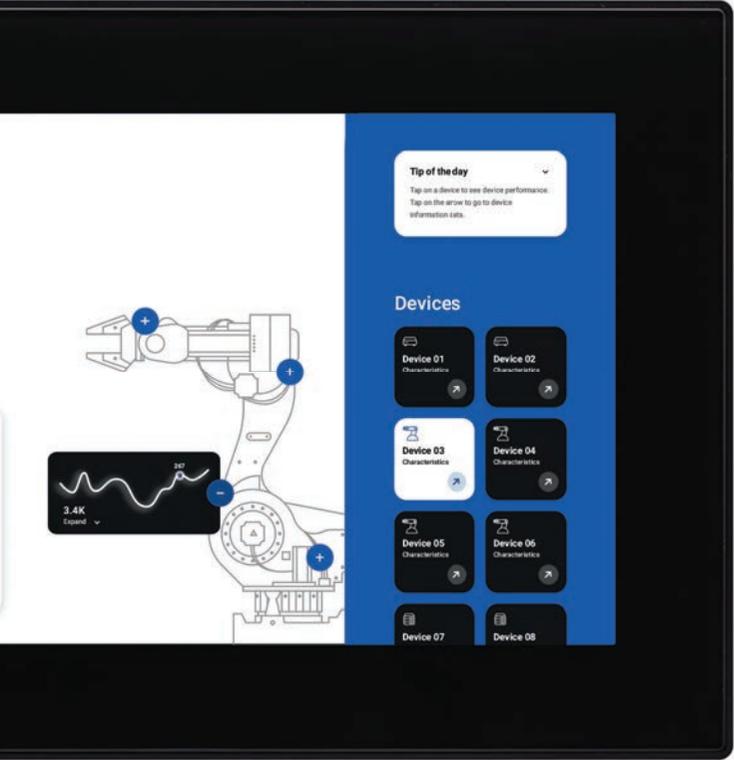
eXware707

eXware707M

eXware707Q

System Resources				
CPU	32-bit RISC single core - 1 GHz	32-bit RISC dual core - 800 MHz	64-bit RISC quad core - 1.6 GHz	32-bit RISC quad core - 800 MHz
Operating System	Linux RT	Linux RT	Linux RT	Linux RT
Flash	4 GB	4 GB	8 GB	8 GB
RAM	512 MB	1 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB	64 KB
RT Clock, RTC Back-up, Buzzer	Yes	Yes	Yes	Yes
Interface				
Ethernet port	2 (port 0 - 10/100, port 1 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	1 (Host v. 2.0, max. 500 mA)	2 (Host v. 2.0, max. 500 mA)	2 (Host v. 2.0, max. 500 mA)	2 (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.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes	Yes	Yes	Yes
Expansion	1 slot for plug-in modules	2 slots for plug-in modules	2 slots for plug-in modules	2 slots for plug-in modules
Ratings				
Power supply	24 Vdc (10 to 32 Vdc)			
Current Consumption	0.35 A max. at 24 Vdc	0.5 A max. at 24 Vdc	0.5 A max. at 24 Vdc	0.55 A max. at 24 Vdc
Input Protection	Electronic	Electronic	Electronic	Electronic
Battery	Yes	Yes	Yes	Yes
Environment Conditions				
Operating Temperature	-20°C to +60°C - Plug-in modules and USB devices may limit max temperature to +50 °C.	-20°C to +60°C - Plug-in modules and USB devices may limit max temperature to +50 °C.	-20°C to +60°C - Plug-in modules and USB devices may limit max temperature to +50 °C.	-20°C to +60°C - Plug-in modules and USB devices may limit max temperature to +50 °C.
Storage Temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Operating/Storage Humidity	5 - 85% RH, non condensing			
Protection Class	IP20	IP20	IP20	IP20
Dimensions and Weights				
Faceplate LxH	45x134 mm (1.77x5.27")	44 x 174 mm	44 x 174 mm	44 x 174 mm
Depth D	102 mm (4.01")	144 mm	144 mm	144 mm
Weight	0.6 Kg	0.7 Kg	0.7 Kg	0.7 Kg
Mounting	DIN Rail (TS35)	DIN Rail (TS35)	DIN Rail (TS35)	DIN Rail (TS35)
Approvals				
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)			
ATEX	Zone 2: II 3 G Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C	Zone 2: II 3 G Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C	Zone 2: II 3 G Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C	Zone 2: II 3 G Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C
IECEX	Zone 2: Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C	Zone 2: Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C	Zone 2: Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C	Zone 2: Ex ec IIC T5...T4 Gc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C
UL	cULus: UL61010-1 / UL61010-2-201			
UL	cULus: Class 1 Div 2			
DNV	Yes	Yes	Yes	Yes
RCM	Yes	Yes	Yes	Yes
Part Number	+EXW703U0P1	+EXW707U0P1	+EXW707MU0P1	+EXW707QU0P1
Ordering Code	102000500U-0001-03	102000500U-0004-03	102005100U-0000-02	102000500U-0002-03

eX700M Web Series



WEB BASED
HMI



INDUSTRIAL
HMI



RUGGED
HMI



	eX707M Web	eX710M Web	eX712M Web	eX715M Web	eX721M Web
System Resources					
Display - Colors	7" TFT - 16M	10.1" TFT - 16M	12.3" TFT - 16M	15.6" TFT - 16M	21.5" TFT - 16M
Resolution	800x480	1280x800	1920x720	1366x768	1920x1080, full HD
Brightness	500 cd/m ² typ.	500 cd/m ² typ.	600 cd/m ² typ.	400 cd/m ² typ.	300 cd/m ² typ.
Dimming	Yes	Yes	Yes	Yes	Yes
Touchscreen	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch
CPU	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6 GHz
Operating System	Linux	Linux	Linux	Linux	Linux
Flash	8 GB	8 GB	8 GB	8 GB	8 GB
RAM	2 GB	2 GB	2 GB	2 GB	2 GB
RTC, RTC Back-up, Buzzer	Yes	Yes	Yes	Yes	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)	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	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	Yes	Yes	Yes	Yes
Expansion	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules
Ratings					
Power supply	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)	1.0 A at 24 Vdc (max.)	1.1 A at 24 Vdc (max.)	1.2 A at 24 Vdc (max.)	1.7 A at 24 Vdc (max.)
Input Protection	Electronic	Electronic	Electronic	Electronic	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable				
Environment Conditions					
Operating Temperature	-20° to +60 °C (vertical installation). Plug-in and USB devices may limit max temperature to +50 °C				
Storage Temperature	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing				
Protection Class	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X
Dimensions and Weights					
Faceplate LxH	187x147 mm (7.36x5.79")	282x197 mm (11.10x7.80")	344.5x163 mm (13.56x6.41")	422x267 mm (16.6x10.5")	552x347 mm (21.7x13.66")
Cutout AxB	176x136 mm (6.93x5.35")	271x186 mm (10.67x7.32")	332.5x152 mm (13.09x5.94")	411x256 mm (16.18x10")	541x336 mm (21.3x13.22")
Depth D+T	47+8 mm (1.85+0.31")	56+8 mm (2.20+0.31")	49+8.5 mm (1.92+0.33")	56+8 mm (2.20+0.31")	56+8 mm (2.20+0.31")
Weight	1.5 Kg	2.5 Kg	1.8 Kg	4.1 Kg	6.1 Kg
Approvals					
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)				
ATEX	Zone 2/22: II 3 G Ex ec IIC T5...T4 Gc, II 3 D Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C				
IECEX	Zone 2/22: Ex ec IIC T5...T4 Gc, Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C				
UL	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2
DNV	Yes	Yes	Yes	Yes	Yes
RCM	Yes	Yes	Yes	Yes	Yes
Part Number	+EX707MU5PW	+EX710MU5PW	+EX712MU5PW	+EX715MU5PW	+EX721MU5PW
Ordering Code	101004800U-0005-04	101004800U-0006-02	101004800U-0007-02	101004800U-0008-02	101004800U-0009-02

JSmart700M Web Series



WEB BASED
HMI



INDUSTRIAL
HMI



RUGGED
HMI



	JSmart707M Web	JSmart710M Web	JSmart715M Web	JSmart721M Web
System Resources				
Display - Colors	7" TFT - 16M	10.1" TFT - 16M	15.6" TFT - 16M	21.5" TFT - 16M
Resolution	1024x600	1280x800	1366x768	1920x1080
Brightness	400 cd/m ² typ.			
Dimming	Yes	Yes	Yes	Yes
Touchscreen	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch
CPU	64-bit RISC Quad core - 1.6 GHz			
Operating System	Linux	Linux	Linux	Linux
Flash	8 GB	8 GB	8 GB	8 GB
RAM	2 GB	2 GB	2 GB	2 GB
Real Time Clock, RTC Back-up	Yes	Yes	Yes	Yes
Interface				
Ethernet port	10/100 PoE	10/100 PoE	10/100 PoE	10/100 PoE
USB port	1 (Host V2.0, max. 500 mA, available with special cable)	1 (Host V2.0, max. 500 mA, available with special cable)	1 (Host V2.0, max. 500 mA, available with special cable)	1 (Host V2.0, max. 500 mA, available with special cable)
LED	1 RGB	1 RGB	1 RGB	1 RGB
Sensors	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer	Temperature, 3-Axis Accelerometer
Buzzer	Yes	Yes	Yes	Yes
NFC	ISO/IEC 14443A	ISO/IEC 14443A	ISO/IEC 14443A	ISO/IEC 14443A
Wi-Fi	IEEE 802.11a/b/g	IEEE 802.11a/b/g	IEEE 802.11a/b/g	IEEE 802.11a/b/g
Ratings				
Power supply	IEEE 802.3af PoE	IEEE 802.3af PoE	IEEE 802.3at PoE+	IEEE 802.3bt 4PPoE
Power Consumption	12W max.	14W max.	23W max.	35W max.
Battery	Rechargeable Lithium battery, not user-replaceable			
Environment Conditions				
Operating Temperature	-20° to +55° C (vertical installation)			
Storage Temperature	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing	5-85% RH, non-condensing	5-85% RH, non-condensing	5-85% RH, non-condensing
Protection Class	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x	IP67 (requires appropriate accessories and cables) - Type: 1, 12, 4x
Dimensions and Weights				
Faceplate LxH	195.2x131.6 mm (7.68x5.18")	264.5x183.1 mm (10.41x7.20")	398.6x248 mm (15.69x 9.76")	534.1x325.6 mm (21.02x 12.81")
Depth D	16.5 mm (0.6")	16.5 mm (0.6")	26.5 mm (1.04")	26.5 mm (1.04")
Weight	0.7 Kg	1.2 Kg	4.0 Kg	6.0 Kg
Approvals				
CE	Radio Equipment Directive 2014/53/EU (RED)			
UL	cULus: UL61010-1 / UL61010-2-201			
UL	cULus: Class 1 Div 2			
RCM	Yes	Yes	Yes	Yes
Part Number	+JS707GB2U5PW	+JS710GC2U5PW	+JS715GD2U5PW	+JS721GE2U5PW
Ordering Code	101004300U-0012-01	101004300U-0013-02	101004300U-0014-01	101004300U-0014-01

eX200 Web Series



WEB BASED
HMI



INDUSTRIAL
HMI



RUGGED
HMI



	eX205 Web	eX207 Web	eX210 Web	eX215 Web
System Resources				
Display - Colors	5" - 16.7 M	7" - 16.7M	10.1" - 16.7M	15.6" - 16.7M
Resolution	800x480	1024x600	1280x800	1920X1080
Brightness	400 Cd/m2 typ.	400 Cd/m2 typ.	400 Cd/m2 typ.	350 Cd/m2 typ.
Dimming	Yes	Yes	Yes	Yes
Touchscreen	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch
CPU	64-bit RISC quad core - 1.6GHz	64-bit RISC quad core - 1.6GHz	64-bit RISC quad core - 1.6 GHz	64-bit RISC quad core - 1.6GHz
Operating System	Linux	Linux	Linux	Linux
Flash	4 GB (pSLC mode)			
RAM	2 GB	2 GB	2 GB	2 GB
Real Time Clock	Yes	Yes	Yes	Yes
RTC Back-up	Supercapacitor	Supercapacitor	Supercapacitor	Supercapacitor
Interface				
Ethernet port	1 (10/100 Mbit)	1 (10/100 Mbit)	1 (10/100 Mbit)	1 (10/100 Mbit)
USB port	1 (Host v. 2.0, max. 500 mA)			
Buzzer	Yes	Yes	Yes	Yes
Indicator Light	1 (RGB LED)	1 (RGB LED)	1 (RGB LED)	1 (RGB LED)
Ratings				
Power supply	24 Vdc (9 to 32 Vdc)			
Current Consumption	0.35 A max. at 24 Vdc	0.4 A max. at 24 Vdc	0.5 A max. at 24 Vdc	0.75 A max. at 24 Vdc
Input Protection	Electronic	Electronic	Electronic	Electronic
Environment Conditions				
Operating Temperature	-20°C to +55°C (vertical installation)			
Storage Temperature	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Operating / Storage Humidity	5-85% RH, non condensing			
Protection Class	IP66 (front), IP20 (rear)			
Dimensions and Weights				
Faceplate LxH	147x107 mm (5.79x4.21")	187x147 mm (7.36x5.79")	282x197 mm (11.10x7.76")	422x267 mm (16.61"x10.51")
Cutout AxB	136x96 (5.35"x3.78")	176x136 mm (6.93x5.35")	271x186 mm (10.67x7.32")	411x256 mm (16.18"x10.08")
Depth D+T	29+8 mm (1.14+0.31")	29+8 mm (1.14+0.31")	29+8 mm (1.14+0.31")	35+10 mm (1.38"+0.39") mm
Weight	0.5 Kg	0.7 Kg	1.3 Kg	3.2 Kg
Approvals				
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)			
UL	cULus: UL61010-1 / UL61010-2-201 *			
RCM	Yes	Yes	Yes	Yes
Part Number	+EX205U50W	+EX207U50W	+EX210U50W	+EX215U50W
Ordering Code	101006200U-0001-01	101006200U-0003-01	101006200U-0005-01	101006200U-0007-01

* Roadmap 2024



eXtreme Series



OUTDOOR
HMI



INDUSTRIAL
HMI



RUGGED
HMI



MARINE &
OFFSHORE

XA5

System Resources	
Display - Colors	5" TFT - 64K
Resolution	800x480
Brightness	500 cd/m ² typ.
Dimming	Yes - down to 0%
Touchscreen	Projected Capacitive, Multitouch, Optical Bonding
CPU	32-bit RISC Dual Core - 650 MHz
Operating System	Linux RT
Flash	8 GB
RAM	1 GB
FRAM	64 KB
Real Time Clock, RTC Back-up	Yes, rechargeable battery
Interface	
Ethernet port	2 ports 10/100 Mbit/s
CAN port	2, FD, isolated, up to 1 Mbit/s
USB port	1 Host v. 2.0 500mA
Serial port	RS-485, isolated
Digital Output	1 SSR NO 60V 0.5A
Wi-Fi	IEEE 802.11a/b/g
Sensors	Temperature, 3-Axis Accelerometer, Environment Light
Buzzer	Yes
Expansion	1 slot for plug-in modules
Ratings	
Power supply	24 Vdc (10 to 32 Vdc)
Power consumption	1.4 A at 24 Vdc (max.)
Power management key	Yes
Environment Conditions	
Operating Temperature	-30°C to +70°C
Storage Temperature	-40°C to +85°C
Operating / Storage Humidity	5-85% RH, non condensing
Protection Class	IP66/IP67
Dimensions and Weights	
Faceplate LxH	158.6x115 mm (6.24"x4.53")
Cutout AxB	142.6x99 mm (5.61"x3.90")
Depth D+T	44+6.5 mm (1.73"+0.26")
Weight	0.6 Kg
Approvals	
CE	Radio Equipment Directive 2014/53/EU (RED)
UL	cULus: UL61010-1 / UL61010-2-201
DNV	Yes *
RCM	Yes
Part Number	+XA5U5P1
Ordering Code	101005200U-0000-01

* Roadmap 2025



	eX707G	eX710G	eX715MG	eX715MG Web
System Resources				
Display - Colors	7" TFT - 16M	10.1" TFT - 16M	15,6 TFT - 16M	15,6 TFT LED - 16M
Resolution	800x480	1280x800	1920x1080	1920x1080
Brightness	600 cd/m ² typ.	800 cd/m ² typ.	700 cd/m ² typ.	700 cd/m ² typ.
Dimming	to 0%	to 0%	Yes	Yes
Touchscreen	Projected Capacitive, Multitouch, Optical Bonding	Projected Capacitive, Multitouch, Optical Bonding	Projected Capacitive, Multitouch, Optical Bonding	Projected Capacitive, Multitouch, Optical Bonding
CPU	32-bit RISC Dual core - 800 MHz	32-bit RISC Dual core - 800 MHz	64-bit RISC Quad core - 1.6GHz	64-bit RISC Quad core - 1.6GHz
Operating System	Linux RT	Linux RT	Linux	Linux
Flash	4 GB	4 GB	8 GB	8 GB
RAM	1 GB	1 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB	-
RT-Clock, RTC Back-up, Buzzer	Yes	Yes	Yes	Yes
Interface				
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	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.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes	Yes	Yes	Yes
Expansion	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules
Ratings				
Power supply	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)	1.0 A at 24 Vdc (max.)	1.35 A at 24 Vdc (max.)	1.35 A at 24 Vdc (max.)
Input Protection	Electronic	Electronic	Electronic	Electronic
Battery	Rechargeable Lithium battery, not user-replaceable	Rechargeable Lithium battery, not user-replaceable	Rechargeable Lithium battery, not user-replaceable	Rechargeable Lithium battery, not user-replaceable
Environment Conditions				
Operating Temperature	-20° to +60°C (vertical installation). Plug-in modules and USB devices may limit max temperature to +50°C	-20° to +60°C (vertical installation). Plug-in modules and USB devices may limit max temperature to +50 °C	-30° to +70°C (vertical installation). Plug-in modules and USB devices may limit max temperature to +50 °C	-30° to +70°C (vertical installation). Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temperature	-20°C to +70°C	-20°C to +70°C	-40°C to +85°C	-40°C to +85°C
Operating / Storage Humidity	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing
Protection Class	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X	IP66 (front), IP20 (rear) - Type: 12, 4X
Dimensions and Weights				
Faceplate LxH	187x147 mm (7.36x5.79")	282x197 mm (11.10x7.80")	422x267 mm (16.6x10.5")	422x267 mm (16.6x10.5")
Cutout AxB	176x136 mm (6.93x5.35")	271x186 mm (10.67x7.32")	411x256 mm (16.18x10")	411x256 mm (16.18x10")
Depth D+T	47+8 mm (1.85+0.31")	56+8 mm (2.20+0.31")	56+8 mm (2.20+0.31")	56+8 mm (2.20+0.31")
Weight	1.5 Kg	2.5 Kg	4.1 Kg	4.1 Kg
Approvals				
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)			
ATEX	Zone 2/22: II 3 G Ex ec IIC T5...T4 Gc, II 3 D Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C		To be planned	To be planned
IECEX	Zone 2/22: Ex ec IIC T5...T4 Gc, Ex tc IIIC T95°C Dc -20°C ≤ Tamb ≤ +60°C or 0°C ≤ Tamb ≤ +50°C		To be planned	To be planned
UL	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201
UL	cULus: Class I Div. 2	cULus: Class I Div. 2	cULus: Class 1 Div 2	cULus: Class 1 Div 2
DNV	Yes	Yes	Yes	Yes
RCM	Yes	Yes	Yes	Yes
Part Number	+EX707GU5P1	+EX710GU5P1	+EX715MGU5P1	+EX715MGU5PW
Ordering Code	101000200U-0000-04	101000200U-0002-04	101005500U-0001-03	101005500U-0000-03

eX700FB Series



FOOD &
PHARMACEUTICAL



INDUSTRIAL
HMI





	eX707FB	eX710MFB	eX715FB
System Resources			
Display - Colors	7" TFT 16:9 - 16M	10.1" TFT LED - 16M	15,6" TFT - 16M
Resolution	800x480, WVGA	1280x800, HD	1366x768, HD
Brightness	500 Cd/m ² typ.	500 Cd/m ² typ.	400 Cd/m ² typ.
Dimming	to 0%	Yes	to 0%
Touchscreen	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch	Projected Capacitive, Multitouch
CPU	32-bit RISC dual core - 800 MHz	64-bit RISC quad core - 1.6 GHz	32-bit RISC quad core - 800 MHz
Operating System	Linux RT	Linux	Linux RT
Flash	4 GB	8 GB	8 GB
RAM	1 GB	2 GB	2 GB
FRAM	64 KB	64 KB	64 KB
Real Time Clock	Yes	Yes	Yes
RTC Back-up	Rechargeable Lithium battery, not user-replaceable	Rechargeable Lithium battery, not user-replaceable	Rechargeable Lithium battery, not user-replaceable
Interface			
Ethernet port	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)	3 (port 0 - 10/100/1000, port 1 - 10/100, port 2 - 10/100)
USB port	2 (Host V2.0, max. 500 mA)	2 (Host V2.0, max. 500 mA)	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.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.	1 (RS-232, RS-485, RS-422, software configurable) Max 3 serial ports using plug-in modules.
SD card	Yes	Yes	Yes
Expansion	2 slot for plug in modules	2 slot for plug in modules	2 slot for plug in modules
Ratings			
Power supply	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)	24 Vdc (10 to 32 Vdc)
Current Consumption	0.7 A at 24 Vdc (max.)	1.0 A at 24 Vdc (max.)	1.2 A at 24 Vdc (max.)
Input Protection	Electronic	Electronic	Electronic
Environment Conditions			
Operating Temperature	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C	-20° to +60 °C (vertical installation) - Plug-in modules and USB devices may limit max temperature to +50 °C	-20° to +60 °C (vertical installation) Plug-in modules and USB devices may limit max temperature to +50 °C
Storage Temperature	-20°C to +70°C	-20°C to +70°C	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non condensing	5-85% RH, non condensing	5-85% RH, non condensing
Protection Class	IP69 (front), IP20 (rear) - Type: 12, 4X	IP69 (front), IP20 (rear) - Type: 12, 4X Use of clamping frame may be required	IP69 (front), IP20 (rear) - Type: 12, 4X
Dimensions and Weights			
Faceplate LxH	217x177 mm (8.54x6.96")	310x225 mm (12.20x8.86")	450x295mm
Cutout AxB	176x136 mm (6.93x5.35")	271x186 mm (10.67x7.32")	411x256 mm (16.18x10")
Depth D+T	45+10 mm (1.77+0.4")	50 + 9 mm (1.97+0.35")	54+10 mm (2.125+0.394")
Weight	2.5 Kg	3.4 Kg	5.2 Kg
Approvals			
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)	Electromagnetic Compatibility Directive 2014/30/EU (EMC)	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
UL	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201 *	cULus: UL61010-1 / UL61010-2-201
RCM	Yes	Yes	Yes
Part Number	+EX707U4F1	+EX710MU4F1	+EX715U4F1
Ordering Code	101000300U-0000-05	101006600U-0000-01	101000300U-0001-03

* Roadmap 2024

X Series



MOBILE HMI



INDUSTRIAL
HMI



X5 Wireless

System Resources	
Display - Colors	5" TFT - 64K colors
Resolution	480x272
Brightness	300 Cd/m ² typ.
Dimming	Yes
Touchscreen	Resistive
CPU	32-bit RISC Single Core 528 MHz
Flash	4 GB
RAM	512 MB
Real Time Clock, RTC Back-up	Yes, rechargeable Lithium battery (not user-replaceable)
Handwheel	Yes
Potentiometer	2
Selector Rotary Switch	16 positions
Emergency Stop Button	Yes, illuminated
Enabling Button	3 positions
Status Indicators	2 bi-color LED
Keys	19 user-programmable
Sensors	3-axis Accelerometer, Temperature (internal)
Buzzer, Vibrator	Yes
Interface	
Wireless	IEEE Std 802.11a/b/g/n
USB	2 Host V2.0, 250mA max
NFC	Yes (optional)
Ratings	
Power Supply	Rechargeable Battery
Battery capacity	4400 mAh
Charging Station	Yes
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	Radio Equipment Directive 2014/53/EU (RED) - Machine Directive (2006/42/EC)
FCC	In progress
Electrical Safety	EN 61010-1 / EN 61010-2-201, UL61010-1 / UL61010-2-201
Safety functions	SIL (IEC 61508): Emergency Stop SIL3, Enabling Device SIL 3, Selector SIL 1 - Performance Level (EN ISO 13849-1): Emergency Stop PL=d, Cat.3, Enabling Device PL=d, Cat.3, Selector PL=b, Cat.B

Model	Part Number	Ordering Code	Description
X5 Wireless HMI	+X5SWJ0HYE0	10100390YE-0001-02	X5 Wireless HMI
Xbase	+X5B0J000YE0	10100390YE-0000-01	Xbase - Base station X5
Xcharging	+X5C00100YE0	10100390YE-0002-01	Xcharging - Charging station

X5 Wired

System Resources	
Display - Colors	5" TFT LED - 64K colors
Resolution	480x272
Brightness	300 Cd/m ² typ.
Dimming	Yes
Touchscreen	Resistive
CPU	32-bit RISC Single Core 528 MHz
Flash	4 GB
RAM	512 MB
FRAM	32 KB
Real Time Clock, RTC Back-up	Yes, rechargeable Lithium battery (not user-replaceable)
Handwheel	Yes
Potentiometer	2 (Optional)
Selector Rotary Switch	16 positions (Optional)
Emergency Stop Button	Yes, illuminated
Enabling Button	3 positions
Status Indicators	1 bi-color LED
Keys	19 user-programmable
Sensors	3-axis Accelerometer
Buzzer	Yes
Interface	
Ethernet	1 (port 0 - 10/100)
USB	2 Host V2.0, 250mA max
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	220x130 (8.66" + 5.12")
Depth D+T	50 mm (1.97")
Weight	Approx 0.8 Kg
Approvals	
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
UL	cULus: ul61010-1 / UL61010-2-201 *
Safety functions	IEC 61508 / EN ISO 13849-1

Model	Part Number	Ordering Code	Description
X5 Wired	+X5RYEI00Y2201	10100610YE-0003-01	X5 Wired, wheel, cable 10 m
	+X5RYEI00Y4201	10100610YE-0002-01	X5 Wired, wheel, cable 5 m
	+X5RYEISYY1201	10100610YE-0000-02	X5 Wired, wheel, selector, potentiometers, cable 3 m
	+X5RYEISYY3201	10100610YE-0001-01	X5 Wired, wheel, selector, potentiometers, cable 20 m
X Wired Connection Box	+X5BYI01	10500610YI-0000-01	X5 Wired Connection Box
X Wired Docking Cradle	+X5DYE01	10500610YE-0000-01	X5 Wired Docking Cradle

* Roadmap 2024



PoE DIN Mounting

PoE Panel Mounting

Accessories JSmart



Features	PoE DIN Mounting	PoE Panel Mounting
PoE Standard	IEEE 802.3af/at	IEEE 802.3af/at
Output Power	36W max	36W max
DC Output Voltage	+54 Vdc	+54 Vdc
Data rates	10/100	10/100
Interface		
Ethernet IN port	10/100	10/100
Ethernet OUT port	10/100 PoE	10/100 PoE
Diagnostic LEDs	3	3
Ratings		
Power Supply	+24 Vdc (18-32 Vdc)	+24 Vdc (18-32 Vdc)
Current Consumption	2.0 A at 24 Vdc (max.)	2.0 A at 24 Vdc (max.)
Efficiency	80% typ	80% typ
Over Voltage / Current Protection	Yes	Yes
Short Circuit Protection	Yes	Yes
Reverse Polarity	Yes	Yes
Environment Conditions		
Operating Temp	-20°C to +55° C	-20°C to +55°C
Storage Temp	-30°C to +80°C	-30°C to +80°C
Operating / Storage Humidity	5-85% RH, non-condensing	5-85% RH, non-condensing
Protection Class	IP20 EN60529	IP67 EN60529 front cabinet
Dimensions and Weights		
Faceplate LxH	80x120 mm	80x120 mm
Depth D	28 mm	28 mm
Weight	350 g	350 g
Approvals		
CE	Electromagnetic Compatibility Directive 2014/30/EU (EMC)	Electromagnetic Compatibility Directive 2014/30/EU (EMC)
UL	cULus: UL61010-1 / UL61010-2-201	cULus: UL61010-1 / UL61010-2-201
RCM	Yes	Yes
Part Number	+JSPOU0P1	+JSPOU0P2
Ordering Code	102000400U-0002-02	102000400U-0003-02



Tube Bracket

+JSBRU001
105004000U-0000-01

Tube Bracket

+JSBRU002
105004000U-0001-01

Wall Bracket

+JSBRU003
105004000U-0002-01

Wall Bracket

+JSBRU004
105004000U-0003-01

Multiuse Bracket

+JSBRU009
105004000U-0008-01

Multiuse Bracket

+JSBRU010
105004000U-0009-01

VESA Bracket

+JSBRU005
105004000U-0004-01

Table Stand

+JSBRU006
105004000U-0005-01

Gooseneck Bracket

+JSBRU007
105004000U-0006-01

VESA Adapter Bracket

+JSBRU008
105004000U-0007-01

90° PoE Cable

+JSCAU001
105004000U-0011-02

Ethernet PoE Cable

+JSCAU002
105004000U-0012-02

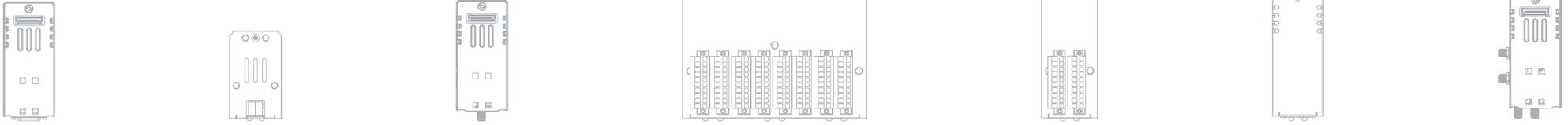
PoE USB Cable

+JSCAU003
105004000U-0013-02

PoE Injector Cable

+JSCAU004
105004000U-0014-02

Accessories Plug-In



Model	Ordering Code	Description	Compatible with
PLCM01	+PLCM01U0P1	105002500U-0000-01 Plug-in CAN	eX700, eX700M, eX700FB, eX700G, eXware Series
PLCM02	+PLCM02U001	105002500U-0006-01 Plug-in KNX/EIB (TP interface)	eX700, eX700M, eX700FB, eX700G, eXware Series
PLCM03	+PLCM03U0P1	105002500U-0008-01 Plug-in RS-232	eX700, eX700M, eX700FB, eX700G, eXware Series
PLCM04	+PLCM04U0P1	105002500U-0010-02 Plug-in RS-422/485 with optical insulation	eX700, eX700M, eX700FB, eX700G, eXware Series
PLCM05	+PLCM05U0P2	105002500U-0013-01 Plug-in extender (for use with PLIO03/04)	eX705, eXware703
PLCM06	+PLCM06U0P1	105002500U-0014-01 Plug-in Profibus DP slave 12 MB	eX700, eX700M, eX700FB, eX700G, eXware Series
PLCM10	+PLCM10U0P1	105002500U-0029-01 Plug-in Wireless Modem LTE/4G, Wi-Fi, GNSS	eX700, eX700M, eX700G, eX700FB, eXware Series
PLCM10B	+PLCM10BU0P1	105002500U-0030-01 Plug-in Wireless Modem LTE/4G	eX700, eX700M, eX700G, eX700FB, eXware Series
CODESYS V3 SoftPLC	+SWLC00R000000	104SOFT00U-0022-01 CODESYS V3 activation license	eX700, eX700M, eX700FB, eX700G, eXware, JSmart, eSMART Series
DB Connector	+SWLJ00C000000	104SOFT00U-0067-01 JMobile Native Database Connector	eX700, eX700M, eX700FB, eX700G, eXware, JSmart, eSMART Series
PLIO03	+PLIO03U0P1	105002500U-0020-02 Plug-in I/O 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	eX700, eX700M, eX700FB, eX700G, eXware Series
PLIO04	+PLIO04U0P1	105002500U-0023-01 Plug-in I/O 10 DI 24 VDC, 10 DO SSR 1.4 A, 4 Programmable AI voltage/PT100/TC, 4 AI voltage, 1 PT100	eX700, eX700M, eX700FB, eX700G, eXware Series
PLIO06	+PLIO06U0P1	105002500U-0024-01 Plug-in I/O compact 8 DI, 6 DO, 1 Relay Output	eX700, eX700M, eX700FB, eX700G, eXware Series

Industrial PCs

eCC, EPC, IPC, MON Series



INDUSTRIAL PCs





	eCC52	eCC105U	eCC106	eCC107	eCC108	eCC3800E	eCC3800E-H110
CPU	Intel® Celeron® processor J3455 Quad Core, 1.50GHz	Intel® Celeron® J1900 2.0GHz	Intel® Pentium® N3710 1.6GHz	Intel Atom® E3930 1.30 GHz	Intel® Celeron® J3455 1.50GHz	6th Gen Intel® Core™ i7/i5/i3 LGA socket	6th Gen Intel® Core™ i7/i5/i3 LGA socket
Chipset	Intel® Apollo Lake	Intel® Bay Trail-D	Intel® Braswell	Intel® Apollo Lake	Intel® Apollo Lake	Q170 PCH	H110 PCH
Max. Memory	8GB DDR3L	8GB DDR3L	8GB DDR3L	8GB DDR3L	8GB DDR3L	16GB DDR4	16GB DDR4
HDD Space	mSATA	1 x 2.5" SATA 2.0 HDD bay	1 x 2.5" SATA HDD bay	1 x 2.5" SATA 2.0 HDD bay	1 x 2.5" SATA 2.0 HDD bay	1 x 2.5" SATA HDD bay	1 x 2.5" SATA HDD bay
CFast Socket	-	-	1 (External, CFast)	-	-	1 (External, M.2)	-
eMMC	-	-	-	-	-	-	-
VGA	-	-	-	-	-	-	-
LVDS	-	-	-	-	Dual, 48-bit (Internal)	-	-
DVI	-	1 (DVI-I)	1 (DVI-D)	1 (DVI-D)	-	1 (DVI-D)	1 (DVI-D)
HDMI	3	1	1	-	-	1	1
DisplayPort	-	-	1	1	2	1	-
USB	6 x USB 3.0, 2 x USB 2.0	2 x USB 2.0, 1 x USB 3.0"	4 x USB 3.0	4 x USB 3.0	2 x USB 2.0, 2 x USB 3.0	4 x USB 2.0, 4 x USB 3.0	4 x USB 3.0, 2 x USB 2.0
Serial Port	4	4	4	2	3	2	2
RS422/485	1	2	2	2	1	2	2
RS422/485 Isolation	-	-	-	-	-	2	r
mini-PCIe	2	1	1	1	1	2	2
M.2	-	1	-	1 (External)	1	1	1
SIM Card Holder	1 (Internal)	1	1	1	-	1	1
GPIO	4-in/4-out (Internal)	4-in/4-out (Internal)	4-in/4-out (Internal)	4-in/4-out (Internal)	8-in/8-out (Internal)	4-in/4-out (Internal)	4-in/4-out (Internal)
LAN Ports	3 x GbE	2x GbE	2 x GbE	2x GbE	2 x GbE	3 x GbE	2 x GbE
Audio	-	Mic-in & Line-out	Mic-in & Line-out	Mic-in & Line-out	-	Mic-in & Line-out	Mic-in & Line-out
Power Input Range	ATX, DC +9V/+30V	ATX, DC + 9V ~ 30VDC	ATX, DC + 9V ~ 30VDC	ATX, DC + 9V ~ 30VDC	ATX,DC + 24V	ATX, DC +9 ~ 30V	ATX, DC +9 ~ 30V
Power Supply Adapter	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Expansion	-	-	-	-	-	1 x PCIe x4	1 x PCIe x4
Win7 32-bit	-	V	-	-	-	V	V
Win7 64-bit	-	V	V	-	-	V	V
WES2009 32-bit	-	-	-	-	-	-	-
Win8 32-bit	-	-	-	-	-	-	-
Win8 64-bit	-	-	V	-	-	V	V
WinCE/WEC	-	-	-	-	-	V	V
Win10 32-bit	-	-	-	-	-	-	-
Win10 64-bit	V	V	V	V	V	V	V
System Dimension (WxDxH)(mm)	162 x 150 x 26	185 x 131 x 54	185 x 131 x 54	185 x 131 x 54	185 x 131 x 54	215 x 272 x 93	215 x 272 x 93
Carton Dimension (WxDxH) (mm)	233x 227x 169	318 x 245 x 152	318 x 245 x 152	318 x 245 x 152	318 x 245 x 167	378 x 342 x 269	378 x 342 x 269
Net Weight (kg)	0.87	1.3	1.3	1.3	1.3	4.5	4.5
Gross weight (kg)	2	2	2	2	2	5.9	5.9
Ordering Code	+70ECC52A01	+70ECC105U	+70ECC106	+70ECC107	+70ECC108	+70ECC3800E	+70ECC3800EH110



	eCCF104M	eCCF105	eCCF200	eCCF300
CPU	Intel® Celeron® J1900 2.0GHz	Intel Atom® x5-E3930 1.8GHz	Intel® Celeron® J1900 2.0GHz	6th Gen. Intel® Core™ i7/i5/i3 LGA socket (Skylake-S)
Chipset	Intel® Bay Trail-D	Intel® Apollo Lake-I	Intel® Bay Trail-D	Intel® Q170
Max. Memory	Onboard 4GB DDR3L	Onboard 4GB DDR3L	8GB DDR3L	8GB DDR4
TPM	TPM 2.0 (SLB9665)	-	-	-
NVRAM	-	-	-	-
Storage	1 x mSATA	Onboard eMMC 16GB	1 x 2.5" SATA HDD bay	2 x 2.5" SATA HDD bay
CFast Socket	-	-	-	1 (external, CFast)
SD Card	-	1	1	-
DVI	-	-	1 (DVI-I)	1 (DVI-D)
HDMI	1	1	-	1
DisplayPort	-	-	1	-
USB	1 x USB 2.0, 1 x USB 3.0, 1 x USB 2.0 (internal)	4 x USB 3.0	3 x USB 2.0, 1 x USB 3.0	2 x USB2.0, 4 x USB3.0
Serial Port	1	2	2	2
RS422/485	1 (RS232/RS485)	2 (RS232/422/485)	2 (RS232/422/485)	2 (RS232/422/485)
RS422/485 Isolation	1 (2.5KV isolation)	2 (2.5KV isolation)	2 (2.5KV isolation)	2 (2.5KV isolation)
mini-PCIe	1 x Full for mSATA 1 x Half for USB/PCIe module	2 x Full size	2	2
SIM Card Holder	1	1	1	1
GPIO	4-in/4-out (external)	4-in/4-out (internal)	4-in/4-out (internal)	4-in/4-out (internal)
LAN Port	2 x GbE (Intel® I211)	2 x GbE (Intel® I210-IT)	2 x GbE	3 x GbE
Audio	-	-	Line-out (internal)	Mic-in & Line-out
Fieldbus I/O Support	-	-	1 (optional)	1 (optional)
Power Input Range	ATX, DC +24V	ATX, DC +24V	ATX, DC +24V	ATX, DC +24V
Win7 32-bit	V	-	V	V
Win7 64-bit	V	-	V	V
WinCE/WEC	-	-	V	-
Win10 32-bit	V	V	V	V
Win10 64-bit	V	V	V	V
Power Supply Adapter	Optional	Optional	Optional	Optional
Expansion	-	-	-	-
Operating temp. (w/ HDD) Based on IEC 60068 STD	-5°C to 50°C	-5°C to 55°C	-5°C to 55°C	-5°C to 55°C
System Dimension (W x D x H, mm)	56.5 x 100 x 130	46.2 x 100 x 120	85 x 157 x 214	90 x 185 x 251
Carton Dimension (W x D x H, mm)	223 x 191 x 206	223 x 191 x 206	346 x 265 x 200	389 x 329 x 251
Net Weight (kg)	0.6	0.7	2.3	3.5
Gross Weight (kg)	1.5	1.6	3.3	4.9
Net Weight (kg)	2.3	3.6	4.7	5.6
Ordering Code	+70ECCF104M	+70ECCF105	+70ECCF200	+70ECCF300



	eTOP-EPC1245T	eTOP-EPC1540T	eTOP-EPC1740T	eTOP-EPC1940T
LCD Size	12.1" 4:3	15" 4:3	17" 4:3	19" 4:3
Max Resolution	XGA, 1024 x 768	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024
Luminance (cd/m ²)	500	400	350	350
Contrast Ratio	700	2500	800	1000
LCD Color	16.7M	16.7M	16.7M	16.7M
Viewing Angel (H-V)	70(U), 70(D), 80(L), 80(R)"	88(U), 88(D), 88(L), 88(R)	60(U), 80(D), 80(L), 80(R)	80(U), 80(D), 85(L), 85(R)
Backlight	LED	LED	LED	LED
Touch Screen	Resistive 5-wire	Resistive 5-wire	Resistive 5-wire	Resistive 5-wire
Touch Light Transmission	80%	81%	81%	81%
CPU	Intel® Celeron® J1900 Quad Core up to 2.0GHz	Intel Celeron J1900 Quad Core up to 2.0GHz	Intel Celeron J1900 Quad Core up to 2.0GHz	Intel Celeron J1900 Quad Core up to 2.0GHz
OS	Win7, Win10	Win7, Win10	Win7, Win10	Win7, Win10
Memory	4GB DDR3L, SO-DIMM module	4GB DDR3L, SO-DIMM module	4GB DDR3L, SO-DIMM module	4GB DDR3L, SO-DIMM module
CFast Socket	1	1	1	1
2nd Display Output	VGA	VGA	VGA	VGA
Ethernet (10/100/1000)	2	2	2	2
Line-out	Line out	Line out	Line out	Line out
USB 2.0/3.0	2/1	2/1	2/1	2/1
COM Port	Isolation 2 x RS232/422/485"	Isolation 2 x RS232/422/485"	Isolation 2 x RS232/422/485	Isolation 2 x RS232/422/485
Power Switch	1	1	1	1
Remote Power Switch	2-pin	2-pin	2-pin	2-pin
Reset Button	1	1	1	1
Power Jack	Terminal blocks 3-pin phoenix connector	Terminal blocks 3-pin phoenix connector	Terminal blocks 3-pin phoenix connector	Terminal blocks 3-pin phoenix connector
Expansion	2 x mini-PCIe	2 x mini-PCIe	2 x mini-PCIe	2 x mini-PCIe
Construction Front Panel	ABS+PC plastic front bezel	ABS+PC plastic front bezel	ABS+PC plastic front bezel	ABS+PC plastic front bezel
Mounting	Panel/Wall/Stand/VESA 100 x 100 mm	Panel/Wall/Stand/VESA 100 x 100 mm	Panel/Wall/Stand/VESA 100 x 100 mm	Panel/Wall/Stand/VESA 100 x 100 mm
Power Input	+12 to 30V DC	+12 to 30V DC	+12 to 30V DC	+12 to 30V DC
Power Supply Adapter	Optional	Optional	Optional	Optional
Operating Temp.	-5°C to 60°C	-5°C to 60°C	-5°C to 60°C	0°C to 50°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, non-condensing
IP Level	Front frame IP65	Front frame IP65	Front frame IP65	Front frame IP65
Certification	CE: EN61000-6-2/4; FCC Class A	CE: EN61000-6-2/4; FCC Class A	CE: EN61000-6-2/4; FCC Class A	CE: EN61000-6-2/4; FCC Class A
Cut Out Size (W x H) (mm)	304.5 x 230	371 x 297	399 x 329	436 x 366
Dimension (W x H x D) (mm)	317 x 243 x 65.5	384.3 x 309.9 x 63.2	410.4 x 340.4 x 65.9	457.6 x 379.2 x 61.2
Net Weight (kg)	3.6	4.7	5.6	6.3
Ordering Code	+71EPC1245TJ	+71EPC1540TJ	+71EPC1740TJ	+71EPC1940TJ

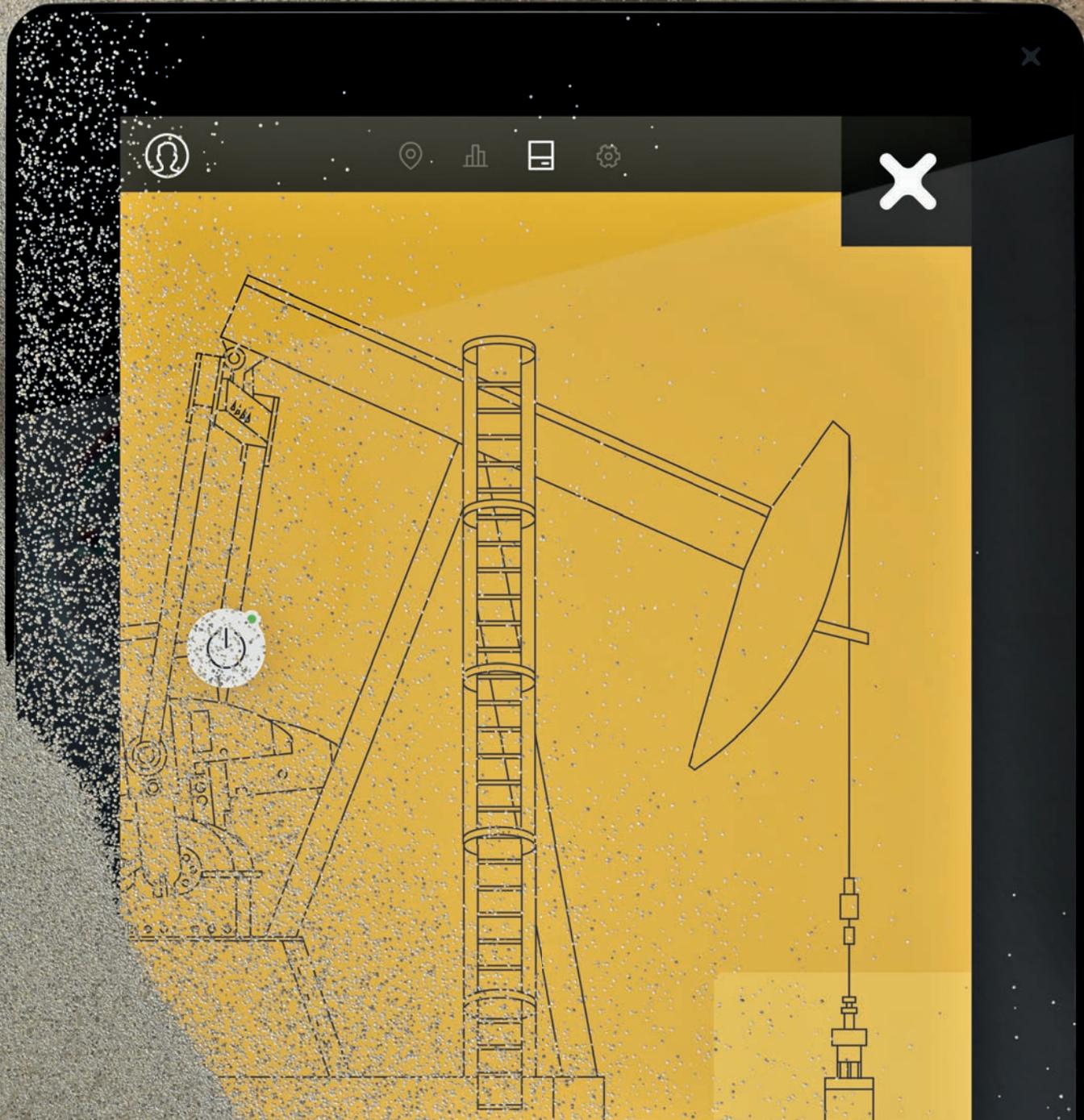


	eTOP-IPC1040P	eTOP-IPC1640P	eTOP-IPC2140P	eTOP-IPC1680P	eTOP-IPC2180P
LCD Size	10.1" 16:9	15.6" 16:9	21.5" 16:9	15.6" 16:9	21.5" 16:9
Max. Resolution	WXGA 1280 x 800	HD, 1366x768	Full HD, 1920 x 1080	HD, 1366x768	Full HD, 1920 x 1080
Luminance (cd/m ²)	300	400	300	300	250
Contrast Ratio	1300	500	5000	500	5000
Viewing Angle (H-V)	85(U), 85(D), 85(L), 85(R)	80(U), 80(D), 85(L), 85(R)	89(U), 89(D), 89(L), 89(R)	16.7M	16.7M
Backlight	LED	LED	LED	80(U), 80(D), 85(L), 85(R)	89(U), 89(D), 89(L), 89(R)
LCD Color	262K	16.7M	16.7M	LED	LED
Touch Screen	10 x point P-Cap	10 x point P-Cap	10 x point P-Cap	Ten Point P-Cap	Ten Point P-Cap
Touch Light Transmission	87%	87%	87%	87%	87%
CPU	Intel Atom® quad core processor J1900, 2.0GHz	Intel Atom® quad core processor J1900, 2.0GHz	Intel Atom® quad core processor J1900, 2.0GHz	6th Gen Intel® Core™ i5/i3 BGA	6th Gen Intel® Core™ i5/i3 BGA
Chipset	-	-	-	-	-
OS	Win7, Win10	Win7, Win10	Win7, Win10	Win10	Win10
Memory	4GB DDR3 SO-DIMM module	4GB DDR3 SO-DIMM module	4GB DDR3 SO-DIMM module	Max. 32GB DDR3L	Max. 32GB DDR3L
CFast Socket	1	1	1	-	-
2nd Display Output	VGA	VGA	VGA	2 x DP	2 x DP
PS2 KB/MS	-	-	-	1 x DB15 (4xGPI/4xGPO)	1 x DB15 (4xGPI/4xGPO)
Ethernet (10/100/1000)	2	2	2	2	2
Line-out	Line-out	Line-out	Line-out	-	-
Line-in	-	-	-	-	-
Mic-in	-	-	-	-	-
USB 2.0/3.0	2/1	2/1	2/1	2/2	2/2
COM Port	Isolation 2 x RS232/422/485	Isolation 2 x RS232/422/485	Isolation 2 x RS232/422/485	2xRS232; 1xRS232/422/485	2xRS232; 1xRS232/422/485
Power Switch	1	1	1	1	1
Remote Power Switch	2-pin	2-pin	2-pin	3pin	3pin
Reset Button	1	1	1	1	1
Power Jack	Terminal blocks 3-pin phoenix Connector	Terminal blocks 3-pin phoenix Connector	Terminal blocks 3-pin phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector	Terminal Blocks 3-Pin Phoenix Connector
Expansion	2 x mini-PCIe	2 x mini-PCIe	2 x mini-PCIe	1xMini PCIe	1xMini PCIe
Construction Front Panel	Aluminum front zero bezel	Aluminum front zero bezel	Aluminum front zero bezel	Aluminum Front Zero Bezel	Aluminum Front Zero Bezel
Mounting	Panel/wall/stand/VESA 100 x 100mm	Panel/wall/stand/VESA 100 x 100mm	Panel/wall/stand/VESA 100 x 100mm	Panel/Wall/Stand/VESA 100x100mm	Panel/Wall/Stand/VESA 100x100mm
Power Input	+12 to 30V DC	+12 to 30V DC	+12 to 30V DC	+24V DC	+24V DC
Power Supply Adapter	Optional	Optional	Optional	Optional	Optional
Operating Temp.	-10°C to 60°C	-10°C to 60°C	-10°C to 60°C	0°C to 50°C	0°C to 50°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, Non-condensing	10%~90%, Non-condensing
IP Level	Front frame IP66	Front frame IP66	Front frame IP66	Front Frame IP66	Front Frame IP66
Cut Out Size (W x H, mm)	294 x 209	398 x 293	544 x 364	398x293mm	544x364mm
Dimension (W x H x D, mm)	308 x 223 x 60.7	417.4 x 312.4 x 63.75	562.4 x 382.4 x 62.85	417.4x312.4x81.75mm	562.4x382.4x80.35mm
Net Weight (kg)	3.7	6.4	9.26	6.4	9.26
Certifications	CE: EN61000-6-2/4; FCC Class A	CE: EN61000-6-2/4; FCC Class A	CE: EN61000-6-2/4; FCC Class A	CE: EN61000-6-2/4; FCC Class A	CE: EN61000-6-2/4; FCC Class A
Ordering Code	+72IPC1040P	+72IPC1640P	+72IPC2140P	+72IPC1680P	+72IPC2180P



	MON1205T	MON1500T1	MON1700T1	MON1900T1
LCD Size	12.1" 4:3	15" 4:3	17" 4:3	19" 4:3
Max. Resolution	XGA, 1024 x 768	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024
Luminance (cd/m ²)	500	400	350	350
Contrast Ratio	700	2500	800	1000
Viewing Angle (H-V)	70(U), 70(D), 80(L), 80(R)	88(U), 88(D), 88(L), 88(R)	60(U), 80(D), 80(L), 80(R)	80(U), 80(D), 85(L), 85(R)
Backlight	LED	LED	LED	LED
LCD Color	16.7M	16.7M	16.7M	16.7M
Touch Screen	Resistive 5-wire	Resistive 5-wire	Resistive 5-wire	Resistive 5-wire
Touch Light Transmission	80%	81%	81%	81%
Touch Screen I/F	USB	USB	USB	USB
OSD Function	OSD keypad	OSD keypad	OSD keypad	OSD keypad
Video Input	VGA; DVI-D	VGA; DVI-D	VGA; DVI-D	VGA; DVI-D
Power Jack	Terminal blocks 3-pin phoenix connector			
Construction Front Panel	ABS+PC plastic front bezel			
Mounting	Panel/wall/stand/VESA 100 x 100 mm			
Power Input	+12 to 24V DC			
Power Supply Adapter	Optional	Optional	Optional	Optional
Operating Temp.	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C	-5°C to 50°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, non-condensing
IP Level	Front frame IP65	Front frame IP65	Front frame IP65	Front frame IP65
Cut Out Size (W x H, mm)	304.5 x 230	371 x 297	399 x 329	436 x 366
Dimension (W x H x D, mm)	317 x 243 x 53.5	384.37 x 309.95 x 51	410.4 x 340.4 x 53.9	457.64 x 379.24 x 49.15
Net Weight (kg)	2.8	3.9	4.8	5.5
Certifications	CE; FCC Class B			
Storage Temp.	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, non-condensing	10%~90%, non-condensing
IP Level	Front frame IP65	Front frame IP65	Front frame IP65	Front frame IP65
Certification	CE: EN61000-6-2/4; FCC Class A			
Ordering Code	+73MON1205T1	+73MON1500T1	+73MON1700T1	+73MON1900T1

	MON1600P	MON2100P
LCD Size	15.6" 16:9	21.5" 16:9
Max. Resolution	HD, 1366 x 768	Full HD, 1920 x 1080
Panel	AUO: G156XW01 V1	AUO: G215HVN01.0
Luminance (cd/m ²)	400	300
Contrast Ratio	500	5000
Viewing Angle (H-V)	80(U), 80(D), 85(L), 85(R)	89(U), 89(D), 89(L), 89(R)
Backlight	LED	LED
LCD Color	16.7M	16.7M
Touch Screen	10 x point P-Cap	10 x point P-Cap
Touch Light Transmission	87%	87%
Touch Screen I/F	USB	USB
OSD Function	OSD keypad	OSD keypad
Video Input	VGA; DVI-D; DP	VGA; DVI-D; DP
Power Jack	Terminal blocks 3-pin phoenix connector	Terminal blocks 3-pin phoenix connector
Construction Front Panel	Aluminum front zero bezel	Aluminum front zero bezel
Mounting	Panel/wall/stand/VESA 100 x 100mm	Panel/wall/stand/VESA 100 x 100mm
Power Input	+12 to 24V DC	+12 to 24V DC
Power Supply Adapter	Optional	Optional
Operating Temp.	-10°C to 60°C	-10°C to 60°C
Storage Temp.	-20°C to 75°C	-20°C to 75°C
Operating Humidity	10%~90%, non-condensing	10%~90%, non-condensing
IP Level	Front frame IP66	Front frame IP66
Cut Out Size (W x H, mm)	398 x 293	544 x 364
Dimension (WxHxD, mm)	417.4 x 312.4 x 51.75	562.4 x 382.4 x 50.85
Net Weight (kg)	5.48	7.87
Certifications	CE; FCC Class B	CE; FCC Class B
Ordering Code	+73MON1600P	+73MON2100P



✓ 02 February 2021

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AI024 - emergency off



Puller

M S ⚡

- ⚙️ 56
- ⚡ 112
- 🌡️ 23

65



11

- +

A control panel for the Puller motor. It features a large number '11' in a black box, a minus sign, a plus sign, and a power button with a green indicator light.

Motor single change

Motor single change power button

Syncro

M S

Syncro control panel with minus and plus buttons.

