RXi2-XP Industrial PC
The Next Generation Of Ruggedized Computing

Emerson has developed the next generation of its powerful, expandable, and reliable industrial computers (IPC). RXi2 IPCs offer new processor choices, increased and faster storage, improved graphics, and enhanced security features.

The RXi2-XP IPC delivers compact, rugged, mid-to high-range performance computing capabilities to run HMI, historian, and analytics applications right at the machine to enable improved real-time control of operations and better integration into plant-wide systems.

Combining outstanding computing capabilities with the added expandability of 0, 1, 2 or 4 PCI Express slots and CFast storage, the RXi2-XP is ideal for a range of demanding industrial applications.

High-Performance Computing
Emerson uses the latest Intel processors based on their unmatched performance. The RXi2-XP IPC has up to 32GB of ECC RAM, 5 Gigabit Ethernet interfaces, and industrial grade high-speed HDD storage (or optional SSD disk storage) to complete the high-performance design.

These features make the RXi2-XP IPC the perfect platform for running industrial applications right at the machine, even in the harshest environments.

The RXi2-XP IPC provides additional application flexibility with both mini PCI Express and low-profile PCI Express slots. This expandability combined with advanced CPUs delivers high-performance computing.

To help keep data and operations secure, the RXi2-XP utilizes Trusted Platform Module (TPM) and Microsoft Secure Boot technology.

Greater Uptime
All aspects of the RXi2-XP IPC have been engineered for reliability in harsh environments, from the use of all industrial grade components to its fanless design. The core of the RXi2-XP IPC architecture is Emerson’s rugged COM Express modular CPU platform. Emerson incorporates patented thermal monitoring technology with sophisticated passive cooling techniques to provide the highest-performance, fanless industrial computing platform that can operate in extended temperature ranges.

Enhanced Productivity & Lower TCO
The RXi2-XP IPC combines high performance with reliability, enhancing productivity and reducing cost of ownership.

The RXi2-XP IPC delivers low TCO through features such as compact size, reduced maintenance, low power consumption, and ease of future performance upgrades enabled by our innovative rugged COM Express CPU architecture.
Specifications

Processor
- Intel® core™ i3-6102E Processor, 25W 2c 1.9GHz 3MB cache
- Intel® core™ i5-6440EQ Processor, 45W 4c 2.7GHz (-3.4GHz) 6MB no ECC
- Intel® core™ i7-6820EQ Processor, 45W 4c 2.8GHz (-3.5GHz) 8MB no ECC
- Intel® XEON® Processor E3-1505L v5, 25W 4c 2.0GHz (-2.8GHz) 8MB
- Intel® XEON® Processor E3-1505M v5, 45/35W 4c 2.8GHz (-3.7GHz) 8MB

Memory
- Up to 32GB DDR4-2133
- Soldered, with ECC

Storage Interfaces
- Primary storage device – M.2 PCI Express Gen3 x4 or M.2 SATA Gen3
- Secondary storage option – Twin 2.5" SATA drive bays, hot swap and RAID enabled
- CFast slot, user accessible, supports boot, hot plug

Ethernet
- Four 1-gigabit Ethernet channels – RJ-45 standard, SFP optional
- One 1-gigabit Ethernet channel w/ remote management capability – RJ45

Wireless Communication
- LTE modem option using Mini-PCIE with UIM card holder
- Wifi/Bluetooth radio option using M.2 expansion slot

Video/Graphics Interface
- Twin DisplayPort++ 1.2 for a total of 3 independent displays

USB Interface
- Four USB 3.0 external
- Two USB 2.0 internal

Serial Communications
- 2 to 4 channels
- Two RS232, two RS422/485

Expansion
- Mini-PCIE card site for NvSRAM card, LTE modem, or other
- M.2 communications slot for WiFi and Bluetooth
- PCI Express expansion slots:
  - Zero
  - One Gen3 x4
  - Two Gen2 x4
  - Four 1x Gen2 x4, 3 Gen2 x1

Non-Volatile Memory
- 512 KB, 1MB or 2MB NVSRAM
- Storage for process relevant data
- NVSRAM option uses mini-PCIE slot LED

LED
- Power, TPM, Temperature, SATA
- Ethernet Link/Activity
- One User Defined LED

Others
- Timers: Legacy PC-AT, HPET
- Twin Watchdog Timers (OS, application)
- Thermal monitoring
- RTC with Lithium coin cell battery

Power
- Input: 24V DC (+25%) with protection

Environmental
All values under typical conditions without added expansion slot cards. Extended temperature variants are available upon request. The maximum extended temperature ranges mentioned in the table below are achievable with a specific choice of CPU and storage, and without extension cards installed in the system.

For detailed information please read the manual.
RXi2-XP Industrial PC

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2X0N1R0B1T0A</td>
<td>Quad Core i7-6820EQ, 2.8GHz, 0 Slot, 256GB SSD, 16GB DDR4, 2xRS232, 5xRJ45, No OS</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X0N1R1B1T0A</td>
<td>Quad Core i7-6820EQ, 2.8GHz, 0 Slot, 256GB SSD, 16GB DDR4, 2xRS232, 5xRJ45, Windows 10</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X1N1B0A1T0A</td>
<td>Dual Core i3-6102E, 1.9GHz, 1 Slot, 128GB SSD, 8GB DDR4 ECC, 2xRS232, 5xRJ45, No OS</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X1N1B1A1T0A</td>
<td>Dual Core i3-6102E, 1.9Hz, 1 Slot, 128GB SSD, 8GB DDR4 ECC, 2xRS232, 5xRJ45, Windows 10</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X1N1C0A1T0A</td>
<td>Quad Core XEON E3-1505Lv5, 2.0GHz, 1 Slot, 128GB SSD, 32GB DDR4 ECC, 2xRS232, 5xRJ45, Windows 10</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X1N1C1A1T0A</td>
<td>Quad Core XEON E3-1505Lv5, 2.0GHz, 1 Slot, 128GB SSD, 32GB DDR4 ECC, 2xRS232, 5xRJ45, Windows 10</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X2N1C0B2T0F</td>
<td>Quad Core XEON E3-1505Lv5, 2.0GHz, 2 Slot, 256GB SSD, 32GB DDR4 ECC, 2xRS232, 2xRS422/485, 5xRJ45, No OS</td>
<td>-40°C to +70°C</td>
</tr>
<tr>
<td>R2X4N1B0A2T0A</td>
<td>Dual Core i3-6102E, 1.9Hz, 4 Slot, 128GB SSD, 8GB DDR4 ECC, 2xRS232, 2xRS422/485, 5xRJ45, No OS</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X4N1B1A2T0A</td>
<td>Dual Core i3-6102E, 1.9Hz, 4 Slot, 128GB SSD, 8GB DDR4 ECC, 2xRS232, 2xRS422/485, Windows 10</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X4N1C0A2T0A</td>
<td>Quad Core XEON E3-1505Lv5, 2.0GHz, 4 Slot, 128GB SSD, 32GB DDR4 ECC, 2xRS232, 2xRS422/485, 5xRJ45, No OS</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X4N1C1A2T0A</td>
<td>Quad Core XEON E3-1505Lv5, 2.0GHz, 4 Slot, 128GB SSD, 32GB DDR4 ECC, 2xRS232, 2xRS422/485, Windows 10</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X4N1D0C2T0A</td>
<td>Quad Core XEON E3-1505M, 2.8GHz, 4 Slot, 512GB SSD, 32GB DDR4 ECC, 2xRS232, 2xRS422/485, No OS</td>
<td>0°C to +60°C</td>
</tr>
<tr>
<td>R2X4N1D1C2T0A</td>
<td>Quad Core XEON E3-1505M, 2.8GHz, 4 Slot, 512GB SSD, 32GB DDR4 ECC, 2xRS232, 2xRS422/485, Windows 10</td>
<td>0°C to +60°C</td>
</tr>
</tbody>
</table>

BIOS
- UEFI AMI Aiptio® 5

Dimensions (H x W x D)
- 0 slot: 252 x 203 x 108.5 mm (9.92 x 8 x 4.24 in)
  Weight: 4.2kg
- 1 slot: 252 x 203 x 132 mm (9.92 x 8 x 4.24 in) Weight – 4.3kg
- 2 slot: 252 x 203 x 155.5 mm (9.92 x 8 x 6.13 in)
  Weight: 4.4kg
- 4 slot: 252 x 203 x 108.5 mm (9.92 x 8 x 4.24 in) Weight – 4.6kg

Mechanical
- Rugged aluminum and stainless steel housing for optimal thermal management and durability
- IP20 – Protection against particles
- Flat and Slim (Book) mounting orientation options

Software Support
- Microsoft® Windows® 10 Professional 64-Bit
- Linux® Kernel 4.4
- VXWorks® 7.0

Safety
- Designed to meet standard UL1950, CE class A, FCC-A
- Designed to meet marine class A

Slim version available
United State Office
Emerson Automation Solutions Intelligent Platforms, LLC
2500 Austin Dr
Charlottesville, VA

China Office
Emerson Automation Solutions Intelligent Platforms (Shanghai) Co., Ltd.
No.1277, Xin Jin Qiao Rd, Pudong, Shanghai, China, 201206

Singapore Office
Emerson Automation Solutions Intelligent Platforms Asia Pacific Pte. Ltd.
1 Pandan Cres,
Singapore, 128461

Germany Office
Emerson Automation Solutions ICC Intelligent Platforms GmbH
Memminger Straße 14
Augsburg, DE 86159

Brazil Office
Emerson Automation Solutions Av. Hollingsworth, 325 – Iporanga
Sorocaba – SP, 18087-105

Emerson Automation Solutions Intelligent Platforms (Shanghai) Co., Ltd.
No.1277, Xin Jin Qiao Rd, Pudong, Shanghai, China, 201206

Americas Support – Technical and Commercial
Phone: 1-888-565-4155 or 1-434-214-8532 (if toll free 800 option is unavailable)
Email for Technical Support: support.mas@emerson.com
Email for Commercial Support: customercare.mas@emerson.com
Primary language of support: English

Europe, Middle East, & Africa Support – Technical and Commercial
Phone: +800-4-444-8001
or +420-225-379-328 (if toll free 800 option is unavailable or dialing from a mobile telephone)
Email for Technical Support: support.mas.emea@emerson.com
Email for Commercial Support: customercare.emea.mas@emerson.com
Primary languages of support: English, German, Italian, Spanish

Asia Support – Technical and Commercial
Phone: +86-400-842-8599 for Greater China
+65-6955-9413 (All Other Countries)
Email for Technical Support: support.mas.apac@emerson.com
Email for Commercial Support Asia: customercare.cn.mas@emerson.com
Primary languages of support: Chinese, English

Support Website: www.emerson.com/iac-support
Home Website: www.emerson.com/industrial-automation-controls

©2020 Emerson. All rights reserved.
The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are property of their respective owners. The contents of this publication are presented for information purposes only, and while effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services describe herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products an any time without notice.