rBOX510-6COM(ATEX/C1D2)
ATEX & CID2 Anti-Explosion Certified Robust DIN-rail Fanless Embedded System with Intel® Atom® Processor E3827 (1.75 GHz)/E3845 (1.91 GHz)

Features
- ATEX & CID2 anti-explosion certification
- Fanless and cableless design
- Intel® Atom® processor E3827 (1.75 GHz)/E3845 (1.91 GHz)
- Wide operating temperature range from -40°C to +70°C
- 4 isolated RS-232/422/485 ports & 2 RS-232/422/485 ports
- 2 isolated 10/100/1000 Mbps Ethernet ports
- 2 watchdog timer
- RTC Battery function
- LED indicators
- One 2.5” SATA SSD and one CompactFlash™
- Power input range of 9V to 48V DC with terminal block
- AMS.AXView intelligent remote monitoring software for IIoT

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Standard Color</td>
<td>Silver-black</td>
</tr>
<tr>
<td>Construction</td>
<td>Extruded aluminum and heavy-duty steel, IP30</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel® Atom™ processor E3827 (1.75 GHz) dual core/Intel® Atom™ processor E3845 (1.91 GHz) quad core (by request)</td>
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<tr>
<td>System Board</td>
<td>CEM840</td>
</tr>
<tr>
<td>System Memory</td>
<td>DDR3L 4GB onboard</td>
</tr>
<tr>
<td>BIOS</td>
<td>AMI UEFI BIOS</td>
</tr>
<tr>
<td>System I/O Outlet</td>
<td>Serial 2 x RS-232/422/485 4 x isolation RS-232/422/485 Interface select by software or BIOS Supports Auto Flow Control in RS-485 mode ESD protection 15kV Magnetic isolation protection 2kV COM 1 &amp; 2 speed up to 115.2kbps COM 3 to 8 serial port speed up to 921.6kbps</td>
</tr>
<tr>
<td>RTC</td>
<td>Battery onboard &amp; Gold capacity onboard 1st backup battery when power shut-down</td>
</tr>
<tr>
<td>USB</td>
<td>1 x USB 3.0 1 x USB 2.0 USB power distribution control by software</td>
</tr>
<tr>
<td>Storage</td>
<td>1 x 2.5” SATA SSD, 1 x mSATA 1 x CompactFlash™ (easy-to-access)</td>
</tr>
<tr>
<td>LAN</td>
<td>2 x 10/100/1000 Mbps (Intel® 210-T1) Magnetic isolation protection 1.5 kV</td>
</tr>
<tr>
<td>Display</td>
<td>1 x VGA (DB15 connector)</td>
</tr>
<tr>
<td>DIO</td>
<td>N/A</td>
</tr>
<tr>
<td>CAN</td>
<td>N/A</td>
</tr>
<tr>
<td>Power Input</td>
<td>1 x DC power input with terminal block</td>
</tr>
</tbody>
</table>

Wiring Diagram

- LED indicators (Power, Alarm, Ready, Active, COM, Wireless)
- isolated DIO (8-in/8-out)
- 4 x isolated COM

System I/O Outlet

- DIO 1 isolated DIO (8-in/8-out)
  - DI: Input Channels: 8 source type
  - Input Voltage: 0 to 30VDC Digital input Digital Input levels for dry/wet contacts
  - DO: Output Channels: 8 sink type
  - Output Current: Max. 200mA per channel
  - External Voltage: 10 to 30 VDC
  - Open collector to 30V
  - Optical isolation protection 3 kV

Watchdog Timer
- 255 levels, 1 to 255 sec.

System Indicator
- Power, Alarm, Ready/Active, COM, Wireless

Power Supply
- Power Input Range: 12 to 48 VDC
- Power Rating: 12 to 48 VDC, 1.38 to 0.45A
- Power Protection: DC version, OVP, UVP, Reserve Protection

Operating Temperature
- -40°C to +70°C (-40°F to +158°F)

Humidity
- 10% to 95%

Vibration Endurance
- 5 Gms (10 to 150Hz, amplitude 0.35 mm; operation/storage/transport)

Weight
- 1.5 kg (3.3 lb) 1.88 kg (4.14 lb)

Dimensions
- 100.6 mm (3.96") x 110 mm (4.33") (D) x 135 mm (5.31") (H)

EOS Support
- Windows® 7 Embedded, Windows® 8 Embedded
- Linux support package

Software Support
- AMS.AXView

* W.T.: Wide Temperature. All W.T. supported products have to be sorted by Axiomtek.
Specifications

ISO
Manufactured in an ISO 9001 facility

Anti-Explosive
ATEX & C1D2 Anti-Explosive Type “nA” Zone 2 Group II & class I, Division 2 Certification

Safety
UL 60950-1
Heavy Industrial CE, including:
EN 60950-1, IEC 60950-1

EMI
FCC Part 18
Heavy Industrial CE, including:
EN 61000-6-4, EN 61000-3-2, EN 61000-3-3

EMS
Heavy Industrial CE, including:
EN 61000-6-2
EN 61000-6-2 (ESD standards)
*Contact: +/- 6 kV; criteria B
*Air: +/- 8 kV; criteria B
*EN 61000-4-3 (radiated RF standards)
*10 V/m, 80 to 1000 kHz, 80% AM criteria A
*1400 to 2000 MHz, 3 V/m, 80% AM (1 kHz)
*2000 to 2700 MHz, 1 V/m, 80% AM (1 kHz)
*EN 61000-4-4 (burst standards)
*Signal ports: +/- 2 kV; criteria B
*DC power ports: +/- 2 kV, criteria B
*EN 61000-4-5 (surge standards)
*Signal ports: +/- 1 kV, line-to-line, criteria B
*DC power ports: +/- 0.5 kV, line-to-earth; criteria B
*EN 61000-4-6 (induced RFI standards)
*Signal ports: 10 Vrms 0.15 to 80 MHz; 80% AM criteria A
*DC power ports: 10 Vrms 0.15 to 80 MHz; 80% AM criteria A
*EN 61000-4-8 (magnetic field standards)
*30 A/m @ 50, 60 Hz; criteria A

Environmental Test
Compliance
IEC 60068-2-6 Fc (vibration resistance)
5 g @ 10 to 150 Hz, amplitude 0.35 mm (operation/storage/transport)

IEC 60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation), 50 g @ 11 ms (half-sine shock pulse; storage/transport)

IEC 60086-2-32 Ed (free fall) 1 M (3.281 ft)

Ordering Information

Standard
rBOX510-6COM-FL-DC (ATEX/C1D2) (P/N: E26M510101)
Robust ATEX/C1D2 DIN-rail fanless embedded system with Intel® Atom™ processor E3827 1.75 GHz dual core, DDR3L 4GB onboard and 6 COM ports (-40°C to +70°C)

rBOX510-E3845-6COM-FL-DC (C1D2)
Robust DIN-rail fanless embedded system with Intel® Atom™ processor E3845 (1.91 GHz) quad core and 6 COM ports (-40°C to +70°C)

rBOX510-E3845-6COM-FL-DC (ATEX, by request)
Robust DIN-rail fanless embedded system with Intel® Atom™ processor E3845 (1.91 GHz) quad core and 6 COM ports (-40°C to +70°C)

Optional
CompactFlash™
8 GB or above (with W.T. CF)
2.5" SATA SSD
mSATA
Wall mount kit

* Specifications and certifications may vary based on different requirements.

Dimensions

* All specifications and photos are subject to change without notice.

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