

# IA260 Series

*Arm-based DIN-rail industrial computers with 4 serial ports, 2 LAN ports, 8 DI/DO, and VGA*



## Features and Benefits

- Cirrus Logic EP9315 Arm9 CPU, 200 MHz
- 128 MB RAM onboard, 32 MB flash disk
- 4 software-selectable RS-232/422/485 serial ports
- VGA interface for field-site monitoring
- Dual 10/100 Mbps Ethernet ports
- 8 + 8 DI/DO channels, up to 30 VDC
- 12 to 48 VDC power input design
- Supports CompactFlash and USB 2.0 hosts
- Ready-to-run Linux or WinCE 6.0 platform
- H-type heat dissipation design for system reliability
- -40 to 75°C wide operating temperature model available

## Certifications



## Introduction

The IA260 embedded computers come with 4 RS-232/422/485 serial ports, dual Ethernet ports, 8 digital input channels, 8 digital output channels, a VGA output, 2 USB hosts, and a CompactFlash socket. The computers are housed in a compact, IP40-rated, industrial-strength aluminum case.

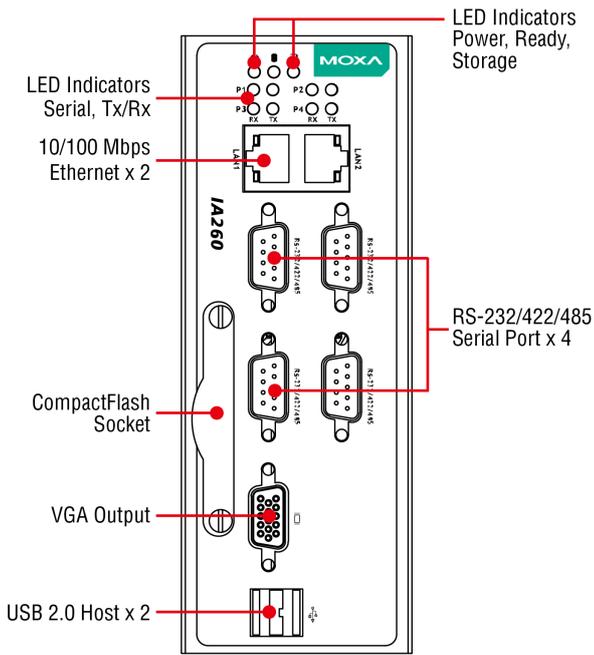
The IA260 computers use the Cirrus Logic EP9315 Arm9, 32-bit, 200 MHz RISC CPU. This powerful computing engine supports several useful communication functions, but will not generate too much heat. The built-in 32 MB NOR Flash ROM and 128 MB SDRAM give you enough memory to run your application software directly on the IA260.

The patented “H-Type” heat dissipation design can directly transmit heat from inside the housing to the outside, which makes the IA260 an ideal computing unit for applications that involve extremely high temperatures. With its built-in VGA output interface, the IA260 computers are suitable for use with SCADA systems in industrial applications, such as factory automation, production line process monitoring, and mining automation, that require VGA and HMI features.

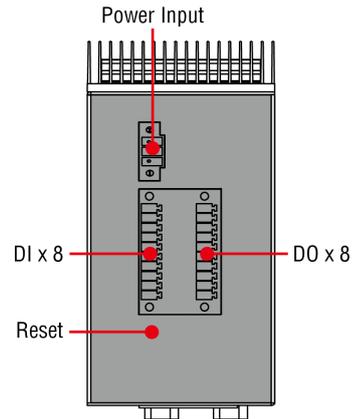
The IA260 computers support RS-232/422/485, digital I/O, and have dual LAN ports, making them ideal for communication platforms in industrial applications that require network redundancy. In addition to the standard model, a wide-temperature (-40 to 75°C) model is available for use in harsh industrial automation environments.

## Appearance

### Front View



### Top View



## Specifications

### Computer

CPU	Cirrus EP9315 Arm9, 200 MHz
Supported OS	Linux kernel version 2.6 Windows Embedded Compact 6.0
Storage Slot	CF slots x 1

### Memory

Flash	32 MB
SDRAM	128 MB

### Computer Interface

Ethernet Ports	Auto-sensing 10/100 Mbps ports (RJ45 connector) x 2
Serial Ports	RS-232/422/485 ports x 4, software selectable (DB9 male)
USB 2.0	USB 2.0 hosts x 2, type-A connectors
Digital Input	DIs x 8
Digital Output	DOs x 8
Video Output	VGA x 1, 15-pin D-sub connector (female)
Console Port	RS-232 (TxD, RxD, GND), 4-pin header output (115200, n, 8, 1)

### Input/Output Interface

Isolation	3k VDC or 2k Vrms
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### Digital Inputs

Connector	Screw-fastened Euroblock terminal
Dry Contact	On: short to GND Off: open

Sensor Type	Dry contact Wet Contact (NPN or PNP)
Wet Contact (DI to COM)	On: 10 to 30 VDC Off: 0 to 3 VDC
<b>Digital Outputs</b>	
Connector	Screw-fastened Euroblock terminal
Current Rating	200 mA per channel
I/O Type	Sink
<b>Ethernet Interface</b>	
10/100BaseT(X) Ports (RJ45 connector)	2
Magnetic Isolation Protection	1.5 kV (built-in)
<b>USB Interface</b>	
Storage Port	USB Type A
USB Standards	USB 1.1/2.0 compliant
<b>LED Indicators</b>	
System	Power x 1 System Ready x 1 Storage x 1
LAN	2 per port (10/100/1000 Mbps)
Serial	2 per port (Tx, Rx)
<b>Display</b>	
Pixels	1024 x 768
<b>Serial Interface</b>	
Baudrate	50 bps to 921.6 kbps (supports non-standard baudrates)
Connector	DB9 male
Data Bits	5, 6, 7, 8
Flow Control	RTS/CTS, XON/XOFF, ADDC® (automatic data direction control) for RS-485, RTS Toggle (RS-232 only)
ESD Protection	4 kV, for all signals
No. of Ports	4
Parity	None, Even, Odd, Space, Mark
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Serial Standards	RS-232/422/485
Stop Bits	1, 1.5, 2
<b>Serial Signals</b>	
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND

RS-485-2w	Data+, Data-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
<b>Power Parameters</b>	
Connection	Removable terminal block
Input Current	450 mA @ 24 VDC
Input Voltage	12 to 48 VDC
No. of Power Inputs	1
Operating Voltage	12 to 48 VDC
Power Connector	3-pin terminal block
Power Consumption	11 W (max.)
<b>Physical Characteristics</b>	
Housing	Metal
Dimensions	52 x 112.6 x 162 mm (2.05 x 4.43 x 6.38 in)
Weight	1,000 g (2.22 lb)
Installation	DIN-rail mounting (with optional kit), Wall mounting (with optional kit)
<b>Environmental Limits</b>	
Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	Standard Models: -20 to 80°C (-4 to 176°F) Wide Temp. Models: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
<b>Standards and Certifications</b>	
EMC	EN 55032/24, EN 61000-6-2/-6-4, EN 61000-3-2 Class A, EN 61000-3-3
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-11 DIPs IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF
Safety	EN 60950-1, IEC 60950-1, UL 60950-1
Shock	IEC 60068-2-27
Vibration	IEC-68-2-34
<b>Declaration</b>	
Green Product	RoHS, CRoHS, WEEE
<b>MTBF</b>	
Time	145,328 hrs
Standards	Telcordia (Bellcore), GB

## Warranty

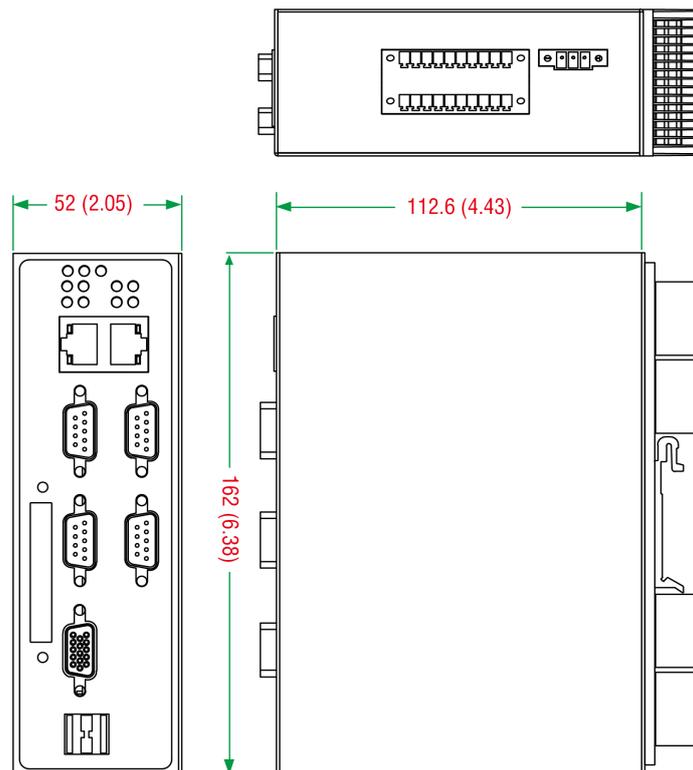
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

## Package Contents

Device	1 x IA260 Series computer
Installation Kit	1 x DIN-rail kit 1 x wall-mounting kit
Cable	1 x 4-pin header to DB9 console port 1 x DB9 male to RJ45 8-pin 1 x Ethernet, crossover 1 x terminal block to power jack converter
Power Supply	1 x power adapter, universal
Documentation	1 x document and software CD 1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x quick installation guide 1 x warranty card

## Dimensions

Unit: mm (inch)



## Ordering Information

Model Name	Serial Ports	LAN Ports	DI/DO	USB 2.0	Storage Slots	OS	Operating Temp.
IA260-CE	4	2	8/8	2	CF Card Type I/II	WinCE 6.0	-10 to 60°C
IA260-LX	4	2	8/8	2	CF Card Type I/II	Linux 2.6	-10 to 60°C
IA260-T-CE	4	2	8/8	2	CF Card Type I/II	WinCE 6.0	-40 to 75°C
IA260-T-LX	4	2	8/8	2	CF Card Type I/II	Linux 2.6	-40 to 75°C

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