

IA261-I/IA262-I Series

Arm-based 200 MHz industrial computer with 2 LAN ports, up to 4 isolated serial ports, 2 CAN ports, 8 DIIs, 8 DOs, 1 VGA port



Features and Benefits

- Cirrus Logic EP9315 Arm9 CPU, 200 MHz
- 128 MB RAM onboard, 32 MB flash disk
- VGA interface for field-site monitoring
- 2 KV digitally isolated RS-232/422/485 serial ports
- Dual 10/100 Mbps Ethernet ports
- 8 + 8 DI/DO with 3 KV optical isolation protection
- 12 to 48 VDC redundant power input design
- Supports CompactFlash and USB 2.0 hosts
- Ready-to-run Linux or WinCE 6.0 platform
- -40 to 75°C wide-temperature models available

Certifications



Introduction

The IA261-I/262-I embedded computers come with 2 (IA262-I) or 4 (IA261-I) RS-232/422/485 serial ports, dual CAN ports (IA262-I only), dual Ethernet ports, 8 digital input channels, 8 digital output channels, VGA output, 2 USB hosts, and a CompactFlash socket. The computers are housed in a compact, IP40-rated, industrial-strength aluminum case.

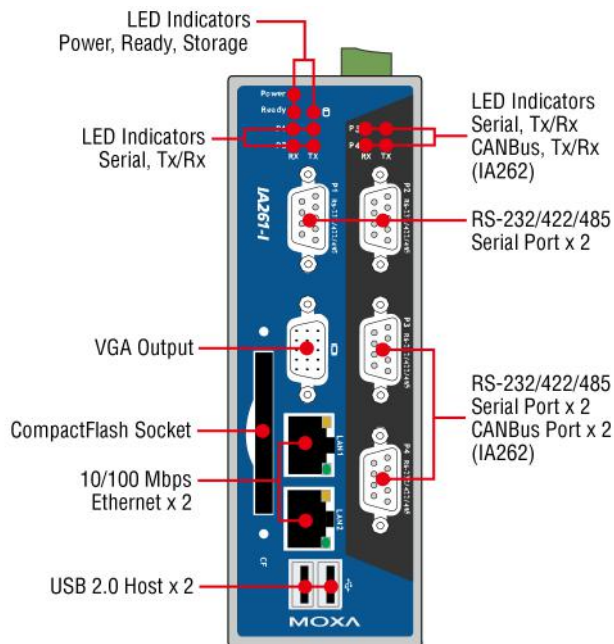
The IA261-I/262-I computers use the Cirrus Logic EP9315 Arm9, 32-bit, 200 MHz RISC CPU. This powerful computing engine supports several useful communication functions, but will not generate too much heat. The built-in 32 MB NOR Flash ROM and 128 MB SDRAM provide enough memory to run your application software directly on the IA261-I/262-I.

With their built-in VGA output interface, the IA261-I/262-I embedded computers are suitable for use with SCADA systems in industrial applications, such as manufacturing automation, production line process monitoring, and mining automation, that require VGA and HMI features.

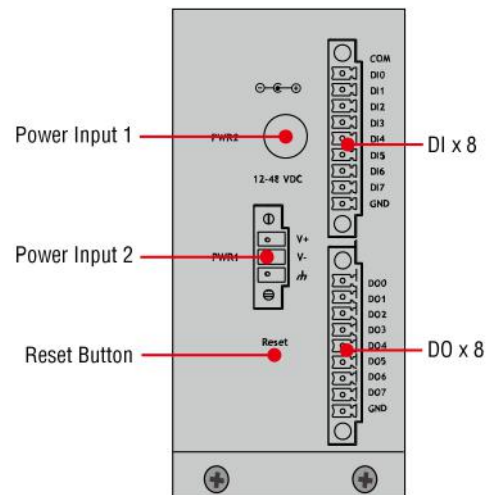
The IA261-I/262-I computers support RS-232/422/485, CAN bus, digital I/O, come with 2 KV isolation protection, and have dual LAN ports, making them ideal as communication platforms for industrial applications that require network redundancy. In addition to the standard models, wide-temperature (-40 to 75°C) models are 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

Memory

Flash	32 MB
SDRAM	128 MB

Computer Interface

Serial Ports	IA261-I Series: RS-232/422/485 ports x 4, software-selectable (DB9 male) IA262-I Series: RS-232/422/485 ports x 2, 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 (Tx/D, Rx/D, GND), 4-pin header output (115200, n, 8, 1)
Storage Slot	CF slots x 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
Digital Outputs	
Connector	Screw-fastened Euroblock terminal
Current Rating	200 mA per channel
I/O Type	Sink
Ethernet Interface	
10/100BaseT(X) Ports (RJ45 connector)	2
Magnetic Isolation Protection	1.5 kV (built-in)
USB Interface	
Storage Port	USB Type A
USB Standards	USB 1.1/2.0 compliant
LED Indicators	
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)
CAN	2 per port (Tx, Rx)
Display	
Pixels	1024 x 768
Serial Interface	
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)
Isolation	2 kV (I models)
No. of Ports	IA261-I Series: 4 IA262-I Series: 2
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

Serial Signals

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

Serial Software Features

Industrial Protocols	IA262 Series: CAN 2.0A, IA262 Series: CAN 2.0B
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CAN Interface

Baudrate	10 to 1000 kbps
Connector	DB9 male
Isolation	2 kV (built-in)
No. of Ports	2
Signals	CAN_L, CAN_H, CAN Signal GND
Terminator	120 ohms

Power Parameters

Connection	Removable terminal block
Input Current	450 mA @ 24 VDC
Input Voltage	12 to 48 VDC, Redundant dual inputs
No. of Power Inputs	2
Operating Voltage	12 to 48 VDC
Power Connector	3-pin terminal block
Power Consumption	11 W (max.)
Source of Input Power	Power input jack

Physical Characteristics

Housing	Metal
Dimensions	60 x 115 x 152 mm (2.36 x 4.53 x 5.98 in)
Weight	950 g (2.09 lb)
Installation	DIN-rail mounting (with optional kit), Wall mounting (with optional kit)

Environmental Limits

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)

Standards and Certifications

EMC	EN 55032/24, EN 61000-6-2/-6-4, EN 61000-3-2 Class D, 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: 10 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: 10 V/m; Signal: 10 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

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	IA261-I Series: 118,752 hrs IA262-I Series: 131,832 hrs
Standards	Telcordia (Bellcore), GB

Warranty

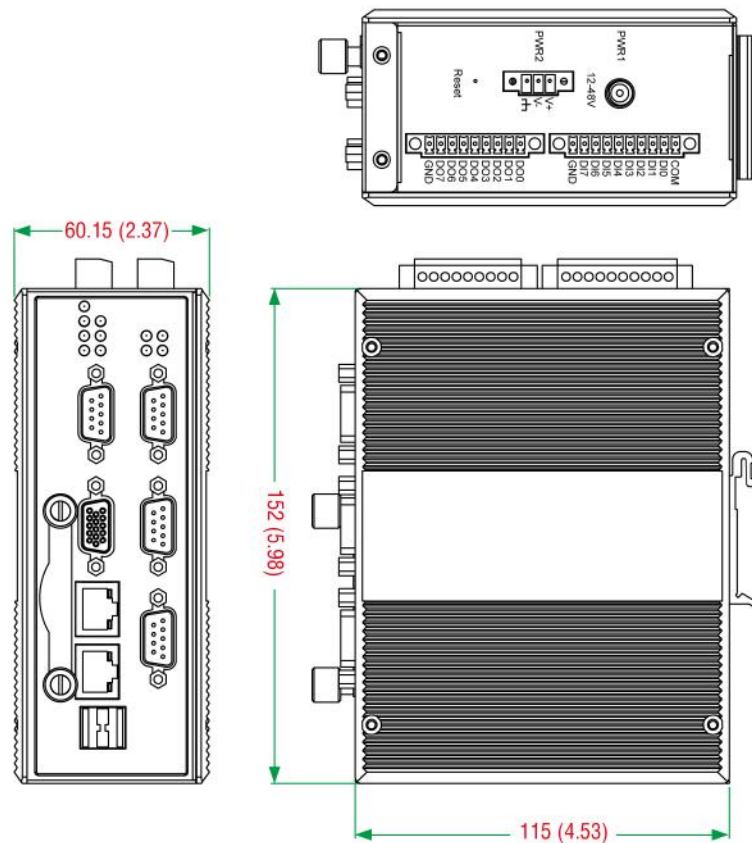
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x IA261-I/IA262-I 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	CAN Ports	LAN Ports	DI/DO	USB 2.0	OS	Operating Temp.
IA261-I-CE	4	–	2	8/8	2	WinCE 6.0	-10 to 60°C
IA261-I-LX	4	–	2	8/8	2	Linux 2.6	-10 to 60°C
IA262-I-CE	2	2	2	8/8	2	WinCE 6.0	-10 to 60°C
IA262-I-LX	2	2	2	8/8	2	Linux 2.6	-10 to 60°C
IA261-I-T-CE	4	–	2	8/8	2	WinCE 6.0	-40 to 75°C
IA261-I-T-LX	4	–	2	8/8	2	Linux 2.6	-40 to 75°C
IA262-I-T-CE	2	2	2	8/8	2	WinCE 6.0	-40 to 75°C
IA262-I-T-LX	2	2	2	8/8	2	Linux 2.6	-40 to 75°C

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