DA-660A Series

Arm-based 1U rackmount industrial computers with 8 to 16 serial ports and 4 LAN ports

Features and Benefits

- MoxaMacro 500 MHz processor with 128 MB onboard RAM and 32 MB flash memory

- 8 to 16 software-selectable RS-232/422/485 serial ports

- 8 to 16 jumper-configurable 1/150 kΩ pull high/low and 120 ohm termination resistors

- 15 kV ESD protection for all serial signals

- Quad 10/100 Mbps Ethernet ports

- USB and CF slots for storage expansion

- Standard 19-inch rackmount installation, 1U height

- Wide-range 100 to 240 VAC power input

- LCM display and keypad for HMI

- Ready-to-run Linux OS platform

- Robust, fanless design

- Models with serial port isolation protection available
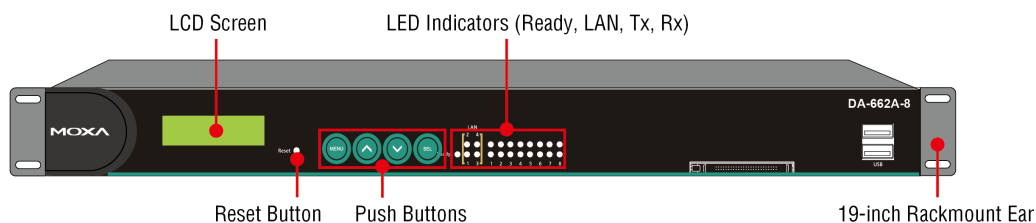
Certifications

Introduction

The DA-660A Series Arm-based, ready-to-run embedded computers are designed for industrial data-acquisition applications. The computers have 8 to 16 RS-232/422/485 serial ports, 4 Ethernet ports, and 2 USB 2.0 ports, all based on the MoxaMacro communication processor. In addition, the DA-662A-I-8/16-LX's serial ports come with high-level interference protection. The housing is a standard 1U, 19-inch wide rack-mountable rugged enclosure. The robust, rack-mountable mechanism design provides the hardened protection needed for industrial environment applications, and makes it easy for users to install the DA-660A computers on a standard 19-inch rackmount.
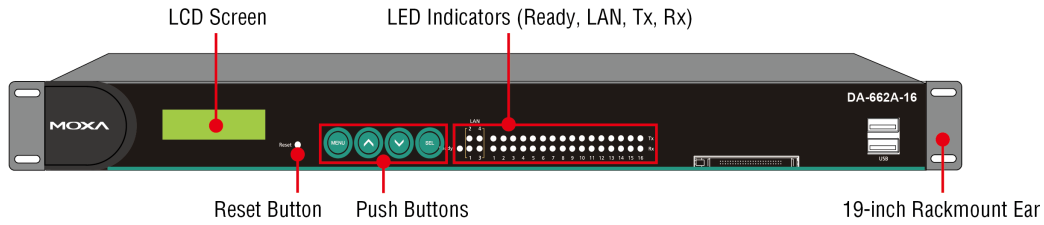
The DA-660A computers are ideal for applications that require a distributed embedded technology, such as SCADA systems, plant-floor automation, and power electricity monitoring applications.
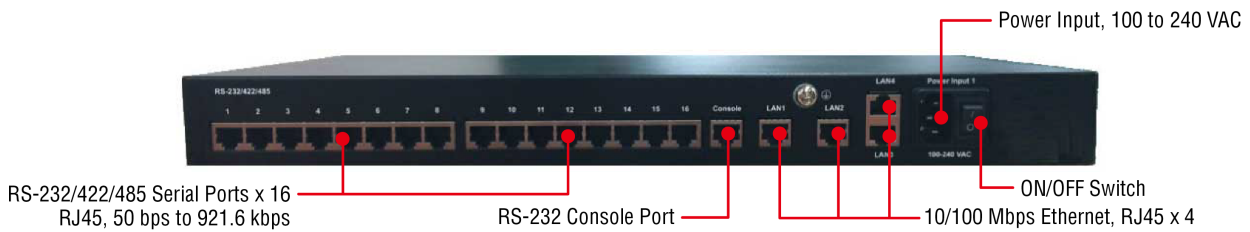
Appearance

Front View (DA-662A-8)

LCD Screen

LED Indicators (Ready, LAN, Tx, Rx)

Reset Button   Push Buttons

19-inch Rackmount Ear

Front View (DA-662A-16)

LCD Screen   LED Indicators (Ready, LAN, Tx, Rx)

Reset Button   Push Buttons   19-inch Rackmount Ear

Rear View (DA-662A-8)

Power Input, 100 to 240 VAC

RS-232/422/485 Serial Ports x 8   RS-232 Console Port   ON/OFF Switch
RJ45, 50 bps to 921.6 kbps   10/100 Mbps Ethernet, RJ45 x 2

Rear View (DA-662A-16)

Power Input, 100 to 240 VAC

RS-232/422/485 Serial Ports x 16   ON/OFF Switch
RJ45, 50 bps to 921.6 kbps   RS-232 Console Port   10/100 Mbps Ethernet, RJ45 x 4

Specifications

Computer

CPU	MoxaMacro 500 MHz
SDRAM	128 MB
Flash	NOR Flash, 32 MB
Pre-installed OS	Linux
LCD Module	Liquid Crystal Display on the case, 2x16 text mode

Ethernet Interface

Ethernet Ports	Auto-sensing 10/100 Mbps ports (RJ45 connector) x 4
Magnetic Isolation Protection	1.5 kV (built-in)

LED Indicators

System	System Ready x 1
Serial	2 per port (Tx, Rx)

Serial Interface

Serial Ports	8-port models: 8 x RS-232/422/485 16-port models: 16 x RS-232/422/485
Console Port	1 x RJ45

Serial Signals

Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS, XON/XOFF, ADDC® (automatic data direction control) for RS-485, RTS Toggle (RS-232 only)
Baudrate	50 bps to 921.6 kbps
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND

Power Parameters

Input Voltage	100 to 240 VAC
Power Consumption	20 W

Reliability

Alert Tools	Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger	Built-in WDT

Physical Characteristics

Dimensions	480 x 45 x 237 mm (18.9 x 1.77 x 9.33 in)
Weight	4,300 g (9.56 lb)

Environmental Limits

Operating Temperature	-10 to 60°C (14 to 140°F)
Storage Temperature (package included)	-20 to 70°C (-4 to -158°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Vibration	1g @ IEC-68-2-6, sine wave (resonance search), 5-500 Hz, 1 Oct/min, 1 Cycle, 13 mins 17 sec per axis

Standards and Certifications

Safety	UL 60950-1
EMC	EN 61000-6-2/-6-4
EMI	CISPR 22, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 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: 2 kV; Signal: 4 kV IEC 61000-4-6 CS: 3 V/m IEC 61000-4-8: 1 A/m IEC 61000-4-11
Green Product	RoHS, CRoHS, WEEE

MTBF

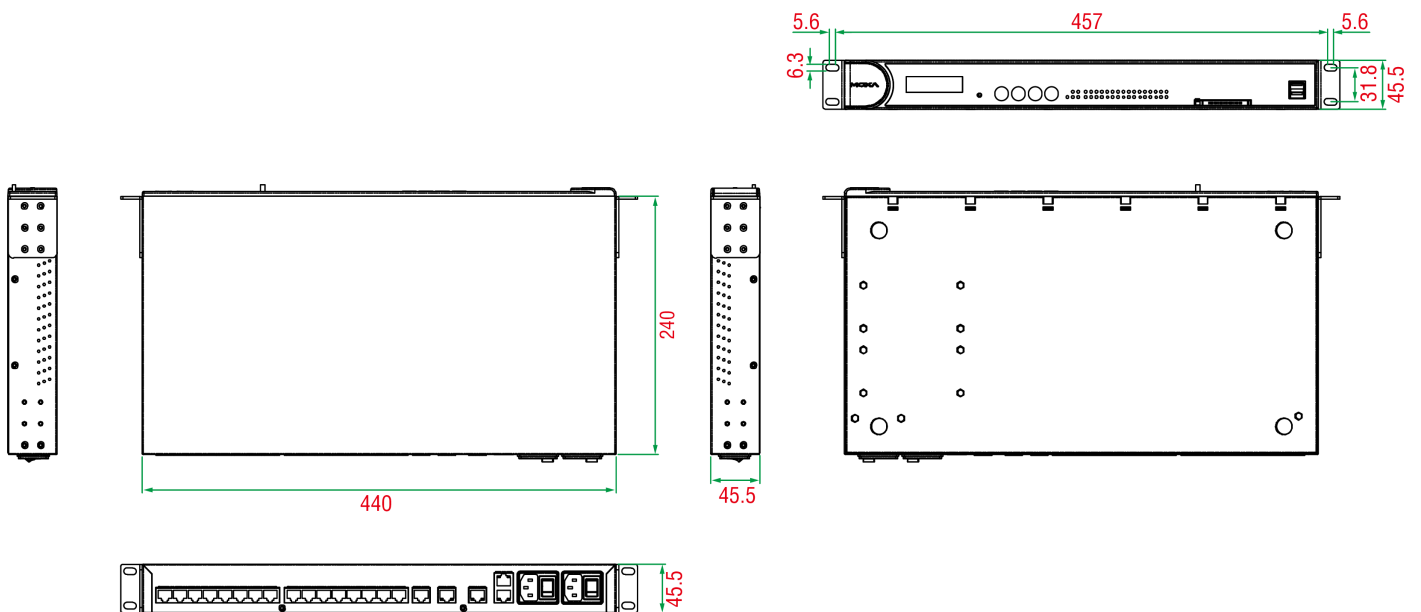|	
Time	DA-662A-8-LX: 272,913 hrs DA-662A-16-LX: 177,580 hrs DA-662A-16-DP-LX: 177,260 hrs DA-662A-I-8-LX: 268,332 hrs DA-662A-I-16-LX: 189,455 hrs
Standards	Telcordia (Bellcore) Standard

Warranty

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

Package Contents

Device	1 x DA-660A Series computer
Installation Kit	1 x rack-mounting kit
Cable	1 x 8-pin RJ45 to DB9 male serial port cable, 150 cm 1 x RJ45-to-RJ45 cross-over cable, 100 cm 1 x 8-pin RJ45 to DB9 female console port cable, 150 cm 6 x jumper cap
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm

Ordering Information

Model Name	RS-232/422/485 Ports	RS-485 Serial Ports (2-Wire Only)	10/100 Mbps LAN Ports
DA-662A-8-LX	8	–	4
DA-662A-16-LX	16	–	4
DA-662A-16-DP-LX	16	–	4

Model Name	RS-232/422/485 Ports	RS-485 Serial Ports (2-Wire Only)	10/100 Mbps LAN Ports
DA-662A-I-8-LX	4	4	4
DA-662A-I-16-LX	4	12	4

Accessories (sold separately)

Power Cords

PWC-C7AU-2B-183	Power cord with Australian (AU) plug, 2.5A/250V, 1.83 m
PWC-C7CN-2B-183	Power cord with two-prong China (CN) plug, 1.83 m
PWC-C7EU-2B-183	Power cord with Continental Europe (EU) plug, 2.5A/250V, 1.83 m
PWC-C7UK-2B-183	Power cord with United Kingdom (UK) plug, 2.5A/250V, 1.83 m
PWC-C7US-2B-183	Power cord with United States (US) plug, 10A/125V, 1.83 m

Power Adapters

PWR-24270-DT-S1	Power adapter, input voltage 90 to 264 VAC, output voltage 24 V with 2.5 A DC load

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