

# EM-1240 Series

*Arm-based industrial computer-on-module with 4 serial ports and 2 LAN ports*



## Features and Benefits

- MOXA ART Arm9 32-bit 192 MHz processor
- 16 MB RAM, 8 MB flash disk onboard
- 4 software-selectable RS-232/422/485 serial ports
- Dual 10/100 Mbps Ethernet ports for network redundancy
- SD signals supported for external SD slot connection
- Built-in RTC, buzzer
- 10 GPIOs reserved for system integration
- Ready-to-run  $\mu$ Clinux kernel 2.6 platform
- Full-function development kit for quick evaluation and application development
- -40 to 75°C wide-temperature models available

## Certifications

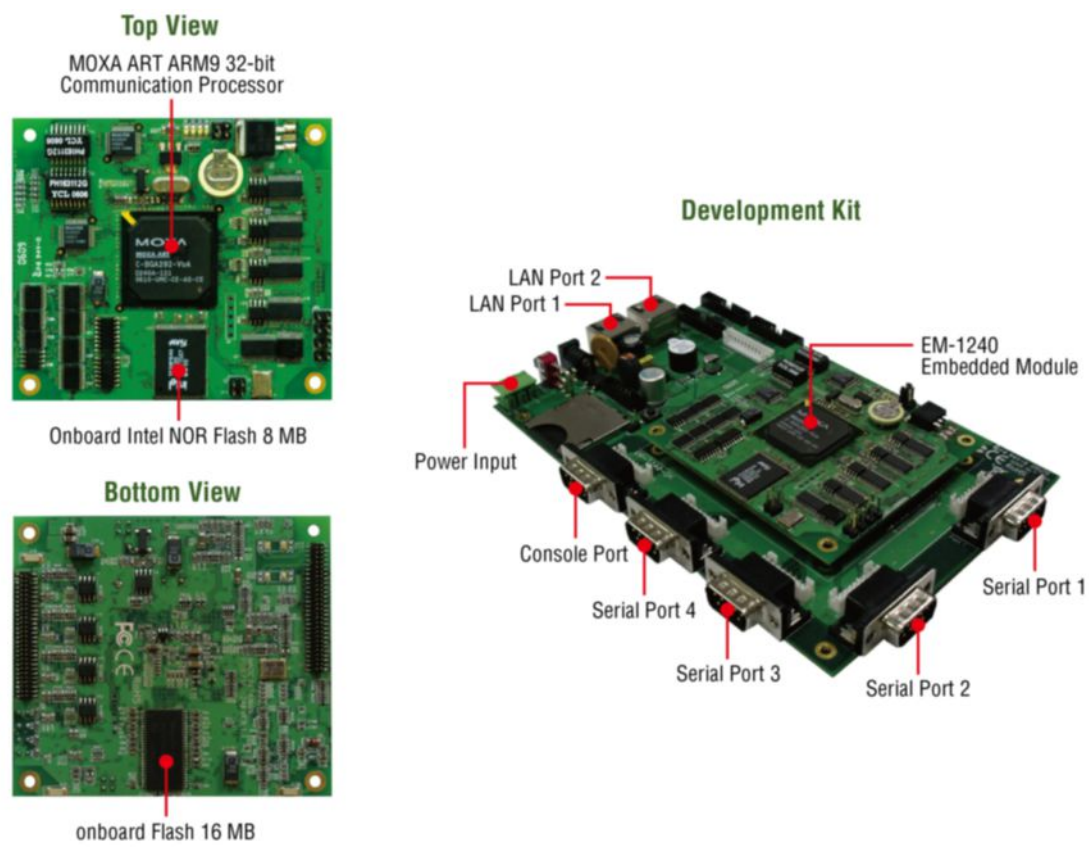


## Introduction

The EM-1240 embedded module features 4 RS-232/422/485 serial ports, dual Ethernet ports, and an SD slot for external storage expansion. The modules have a compact design that can be easily integrated with industrial applications such as gas stations, vending machines, and ticketing machines, and offer a powerful serial communication capability for better system integration.

Programmers will find that the preinstalled, ready-to-run  $\mu$ Clinux platform and the full-function development kit make it easy to develop software and build a reliable communication base for industrial automation applications. In addition, a wide-temperature model is also available to provide a reliable solution for harsh environments.

Appearance



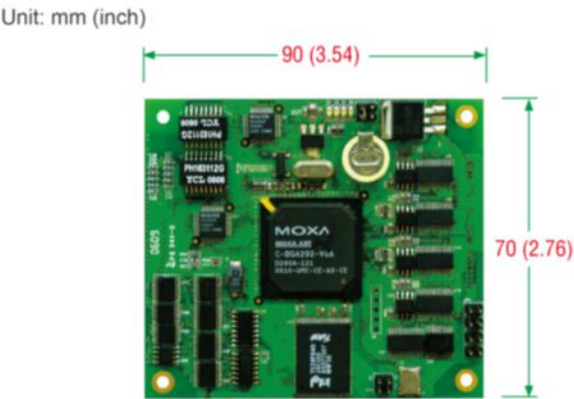
Specifications

Computer	
CPU	MOXA ART Arm9, 192 MHz
SDRAM	16 MB
Flash	NOR Flash, 8 MB
Pre-installed OS	µCLinux
Storage Slot	SD slots x 1
Ethernet Interface	
Ethernet Ports	Auto-sensing 10/100 Mbps ports (RJ45 connector) x 2
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	4 x RS-232/422/485
Console Port	1 x 4-pin header to DB9 console port
Serial Signals	
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2

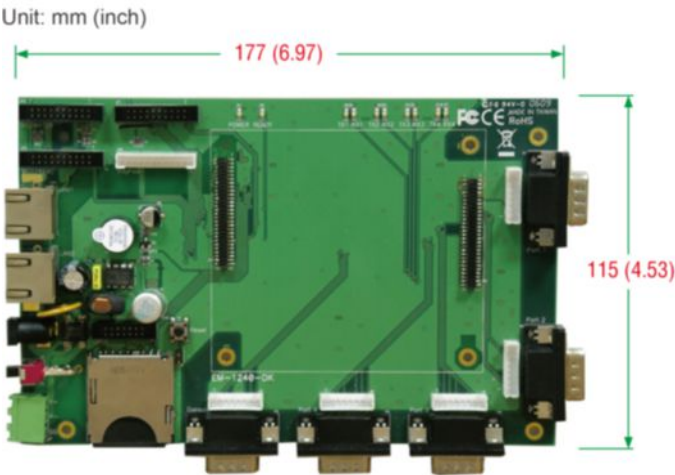
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS, XON/XOFF, ADDC® (automatic data direction control) for RS-485, RTS Toggle (RS-232 only)
Baudrate	50 bps to 921.6 kbps
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w	Data+, Data-, GND
<b>Power Parameters</b>	
Input Voltage	5 VDC
Input Current	500 mA @ 5 VAC
Power Consumption	2.5 W
<b>Reliability</b>	
Alert Tools	Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger	Built-in WDT
<b>Physical Characteristics</b>	
Dimensions	EM-1240 Module: 90 x 80 mm (3.54 x 3.15 in) EM-1240 Development Kit: 117 x 115 mm (6.97 x 4.53 in)
Weight	EM-1240 Module: 50 g (0.11 lb) EM-1240 Development Kit: 200 g (0.44 lb)
<b>Environmental Limits</b>	
Operating Temperature	EM-1240-LX: -10 to 60°C (14 to 140°F) EM-1240-T-LX: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	EM-1240-LX: -20 to 80°C (-4 to 176°F) EM-1240-T-LX: -40 to 85°C (-40 to 185°F)
<b>Standards and Certifications</b>	
EMC	EN 55032/24, EN 61000-3-2 Class A, EN 61000-3-3, CISPR 32, FCC Part 15B Class A
Green Product	RoHS, CRoHS, WEEE
<b>MTBF</b>	
Time	385,419 hrs
Standards	Telcordia (Bellcore) Standard
<b>Warranty</b>	
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>

Dimensions

EM-1240



EM-1240-DK



Ordering Information

Model Name	Description	Operating Temp.
EM-1240-LX	Arm-based embedded core module with 4 serial ports, dual LAN ports, SD slot, µClinux OS, -10 to 60°C operating temperature	-10 to 60°C
EM-1240-T-LX	Arm-based embedded core module with 4 serial ports, dual LAN ports, SD slot, µClinux OS, -40 to 75°C operating temperature	-40 to 75°C

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