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Data Sheet

August 15, 2026

DIAMOND SYSTEMS

Diamond Systems EMM-XT 4-Port RS-232/RS-422/RS-485 PC/104 Module

The Diamond Systems EMM-XT is a PC/104 serial communication module that delivers four independent, configurable RS-232/RS-422/RS-485 ports for industrial embedded systems. Built on the 16C554 quad UART architecture, each port features a 16-byte FIFO buffer for reliable data handling at speeds up to 115.2 kbps (expandable to 460.8 kbps with optional 7.3728 MHz crystal). The module supports jumper-selectable protocol configuration and 120Ω termination resistors for balanced serial modes, making it ideal for legacy and modern mixed-protocol deployments in compact form factors. Data Rates: 115.2 kbps standard; up to 460.8 kbps with optional 7.3728 MHz crystal Selectable interrupt levels (2, 3, 4, 5, 6, 7, 10, 11, 12, 15) with full interrupt sharing and status register Eight programmable I/O address combinations via jumpers; custom OEM configurations available



MODEL

**Diamond Systems
EMM-XT**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

EMM-XT

LISTING

<https://aumictechlabs.com/products/emm-xt-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

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handling at speeds up to 115.2 kbps (expandable to 460.8 kbps with optional 7.3728 MHz crystal). The module supports jumper-selectable protocol configuration and 120Ω termination resistors for balanced serial modes, making it ideal for legacy and modern mixed-protocol deployments in compact form factors. Technical Specifications Form Factor: PC/104 standard Serial Ports: 4 independent ports UART IC: 16C554 quad UART FIFO Buffers: 16-byte transmit and receive per port Data Rates: 115.2 kbps standard; up to 460.8 kbps with optional 7.3728 MHz crystal Protocols: RS-232, RS-422, RS-485 Power Supply: +5V DC Operating Temperature: -40°C to +85°C Key Features Jumper-selectable protocol configuration per port Jumper-selectable 120Ω termination resistors for RS-422/485 modes Selectable interrupt levels (2, 3, 4, 5, 6, 7, 10, 11, 12, 15) with full interrupt sharing and status register Eight programmable I/O address combinations via jumpers; custom OEM configurations available Serial ports on standard I/O headers; optional C-DB9M-2 cable provides dual-row 20-pin connector to two 9-pin male D-sub connectors Certain variants include 1-Wire interface module supporting up to 100 devices over 2000 feet Compatibility & Integration PC/104 (ISA) bus systems Windows and Linux drivers with serial port configuration utilities Port configurations vary by version: all four ports independently configurable, or two fixed RS-232 with two configurable for mixed protocols

EMMXT Characteristics / Specifications

PARAMETER	VALUE
Model	EMM-XT
Ordering Code	EMM-4M-XT
Instrument Type	Four-port PC/104 serial module
Family	Diamond Systems Emerald-MM
Port Count	4
Uart	16C550 compatible with 16-byte FIFOs
Protocols	RS-232, RS-422, RS-485 jumper selected per port
Maximum Baud Standard	115.2 kbps standard configuration
Maximum Baud Sheet	230.4 kbps on current Emerald-MM-4M sheet
Maximum Baud High Speed	460.8 kbps available on HS version
Data Bits	5, 6, 7, or 8
Parity	even, odd, or none
Short Circuit Protection	all outputs protected against continuous short
Headers	two 20-position 2×10 0.025 in square pin on 0.1 in centers
Address Options	8 I/O address options
Interrupt Options	10 interrupt level options using 16-bit PC/104 extension
Input Power	+5 VDC ±10 percent
Current Consumption	80 mA typical, all outputs unloaded
Dimensions	3.55 in x 3.775 in PC/104 standard
Operating Temperature	minus 40 C to +85 C
Bus	PC/104 8-bit; 16-bit headers installed
Rs232 Signals	full 8 signals plus ground per port in RS-232 mode
Rs422 Signals	RX+, RX-, TX+, TX- plus ground
Rs485 Signals	TX+/RX+ and TX-/RX- plus ground
Manufacturer	Diamond Systems

PARAMETER	VALUE
Literature	Diamond Systems Emerald-MM-4M / EMM-4M-XT data sheet and user manual

General Specifications & Supplementary Characteristics

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Rs485 Signals	TX+/RX+ and TX-/RX- plus ground
Manufacturer	Diamond Systems
Literature	Diamond Systems Emerald-MM-4M / EMM-4M-XT data sheet and user manual Notes From Diamond Systems Emerald-MM-4M data sheet and Emerald-MM user manual (EMM-4M-XT). Exact interrupt IRQ map is in the user manual table; do not invent IRQ numbers.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Model: EMM-XT	
Ordering Code: EMM-4M-XT	
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Notes

From Diamond Systems Emerald-MM-4M data sheet and Emerald-MM user manual (EMM-4M-XT). Exact interrupt IRQ map is in the user manual table; do not invent IRQ numbers.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.