

# MEC-COM-2012

## M.2 2242/2260/2280 2-port RS-232 serial board with power input



- Single-Lane (x1) PCI-Express with throughput up to 5.0 / 2.5Gbps
- Fully compliant with PCI-Express Base Specification Rev. 2.0
- Top serial transmission performance up to 921.6 Kbps baud rate
- FIFO 256 Bytes, 15 KV ESD protections on board
- H/W, S/W automate flow control supported
- Each port supports 5V or 12V power output by jumper setting



## Overview

MEC-COM-2012 is a serial communication card for embedded PC. The card follows the M.2 standard which is compliant with PCI Express x 1 classification and M.2 form factor. This board fits in any host computer that has M.2 slots.

### Top Performance

MEC-COM-2012 has 2 RS-232 serial ports, each individual port supports 921.6 Kbps baud rate. The combination features 15KV ESD protection, FIFO 256 Bytes, HW/SW automated flow control and extended operating temperature which enhances the board's reliability and performance.

### High Usability

MEC-COM-2012 is designed with flexibilities for many different applications. The power output can be configured by jumper. The accessories (bracket, connection / power input cable) are included in the standard package.

## Specifications

### General

#### PCI-Express Revision:

PCI-Express Base Specification Rev 2.0

#### PCI-Express Electromechanical Revision:

PCI-Express M.2 Electromechanical Rev. 1.1

### Hardware

**Controllers:** XR17V352 (16C550C compatible)

**Bus:** Single-Lane (x1) PCI-Express with throughput up to 5.0 / 2.5Gbps

### Interface (Connector)

**RS-232:** 2 (DB9 male)

### Serial Line Protection

**ESD Protection:** 15 KV on board

### Serial Port Power

**Voltage Select:** 5V or 12V

### Performance

**Baud Rate:** Asynchronous baud rates up to 921.6 Kbps

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8

**Stop Bits:** 1, 1.5, 2

**Parity:**

- No Parity bit
- Even Parity bit
- Parity bit forced to 0
- Odd Parity bit
- Parity bit forced to 1

**Flow Control:** RTS/CTS, XON/XOFF

### Serial Signals

**RS-232:** TXD, RXD, RTS, CTS, DTR, DSR, DCD, GND, RI

### Driver Support

**Operating Systems:** Win 7, Win 8, Win 10

### Power Requirement

**Power Consumption:** 78mA@3.3V

### Dimensions

**Width x Length (mm):** 22.00 x 42.00  
22.00 x 60.00  
22.00 x 80.00

### Environmental Limits

**Operating Temperature:** -40°C ~ 85°C

**Storage Temperature:** -40°C ~ 95°C

**Humidity:** 5% ~ 95%

### Regulatory Approvals

**EMC:** CE, FCC

**EMI:** EN 55022, EN61000-3-2, EN61000-3-3,  
FCC Part 15 Subpart B  
Class B

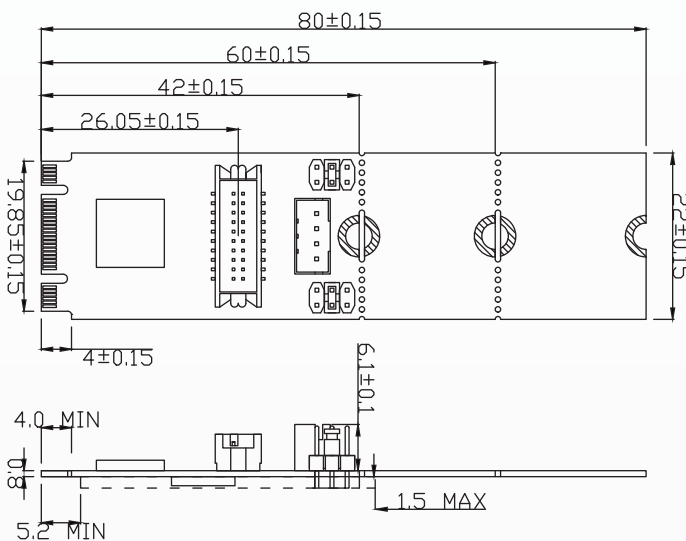
**EMS:** EN 55035, IEC 61000-4-2, IEC 61000-4-3,  
IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6,  
IEC 61000-4-8, IEC 61000-4-11

### Reliability

**Warranty:** 3 years

## Dimensions

Unit: mm



## Package Checklist

- M.2 Card x 1
- Bracket x 1
- 20Pin Internal Cable w/ two DB9 Male Connectors (30cm) x 1
- 4Pin Power Input Cable (30cm) x 1
- Quick Installation Guide (Printed) x 1



## Ordering Information

### Available Models

MEC-COM-2012

M.2 2242/2260/2280 2-port RS-232 serial board with power input

# MEC-COM-2032i

M.2 2242/2260/2280 2-port RS-232/422/485 isolated serial board



- Single-Lane (x1) PCI-Express with throughput up to 5.0 / 2.5Gbps
- Fully compliant with PCI-Express Base Specification Rev. 2.0
- Top serial transmission performance up to 921.6 Kbps baud rate
- FIFO 256 Bytes, 15 KV ESD protections on board
- H/W, S/W automate flow control supported
- RS-232/422/485 mode selectable by DIP switch setting
- Support port to computer isolation 2.5kV



## Overview

MEC-COM-2032i is a serial communication card for embedded PC. The card follows the M.2 standard which is compliant with PCI Express x 1 classification and M.2 form factor. This board fits in any host computer that has M.2 slots.

### Top Performance

MEC-COM-2032i has 2 RS-232/422/485 serial ports, each individual port supports 921.6 Kbps baud rate. The combination features 15KV ESD protection, FIFO 256 Bytes, HW/SW automated flow control and extended operating temperature which enhances the board's reliability and performance.

### High Usability

MEC-COM-2032i is designed with flexibilities for many different applications. The serial RS-232/422/485 mode can be configured by DIP switches. The accessories (bracket, connection / cable) are included in the standard package.

## Specifications

### General

#### PCI-Express Revision:

PCI-Express Base Specification Rev 2.0

#### PCI-Express Electromechanical Revision:

PCI-Express M.2 Electromechanical Rev. 1.1

### Hardware

**Controllers:** XR17V352 (16C550C compatible)

**Bus:** Single-Lane (x1) PCI-Express with throughput up to 5.0 / 2.5Gbps

### Interface (Connector)

**RS-232/422/485:** 2 (DB9 male)

### Serial Line Protection

**ESD Protection:** 15 KV on board

### Galvanic Isolation

**Voltage:** 2.5 kV

### Performance

**Baud Rate:** Asynchronous baud rates up to 921.6 Kbps

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8

**Stop Bits:** 1, 1.5, 2

**Parity:**

- No Parity bit
- Even Parity bit
- Odd Parity bit
- Parity bit forced to 1
- Parity bit forced to 0

**Flow Control:** RTS/CTS, XON/XOFF

### Serial Signals

**RS-232:** TXD, RXD, RTS, CTS, DTR, DSR, DCD, GND, RI

**RS-422:** TXD+, TXD-, RXD+, RXD-

**RS-485:** DATA+, DATA-

### Driver Support

**Operating Systems:** Win 7, Win 8, Win 10

### Power Requirement

**Power Consumption:** 155mA@3.3V

### Dimensions

**Width x Length (mm):** 22.00 x 42.00  
22.00 x 60.00  
22.00 x 80.00

### Environmental Limits

**Operating Temperature:** -40°C ~ 85°C

**Storage Temperature:** -40°C ~ 95°C

**Humidity:** 5% ~ 95%

### Regulatory Approvals

**EMC:** CE, FCC

**EMI:** EN 55022, EN61000-3-2, EN61000-3-3,  
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Class B

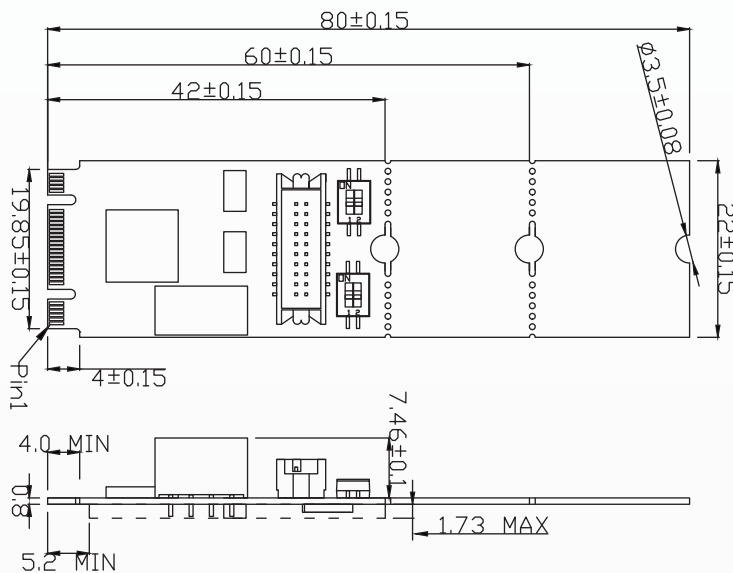
**EMS:** EN 55035, IEC 61000-4-2, IEC 61000-4-3,  
IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6,  
IEC 61000-4-8, IEC 61000-4-11, IEC-60950

### Reliability

**Warranty:** 3 years

## Dimensions

Unit: mm



## Ordering Information

### Available Models

MEC-COM-2032i

M.2 2242/2260/2280 2-port RS-232/422/485 isolated serial board

## Package Checklist

- M.2 Card x 1
- Bracket x 1
- 20Pin Internal Cable w/ two DB9 Male Connectors (30cm) x 1
- Quick Installation Guide (Printed) x 1

