

### Main Features

- PCI-Express x1 Lane Bus Interface
- Switchable 2 port RS-232/422/485
- Supports full duplex (4 wire), half duplex (2 wire) with auto TxD echo cancellation modes in RS-422/485
- Support auto flow control
- Slow Slew Rate capability (on certain models)
- Industrial design, manufactured in Cadmus Taiwan

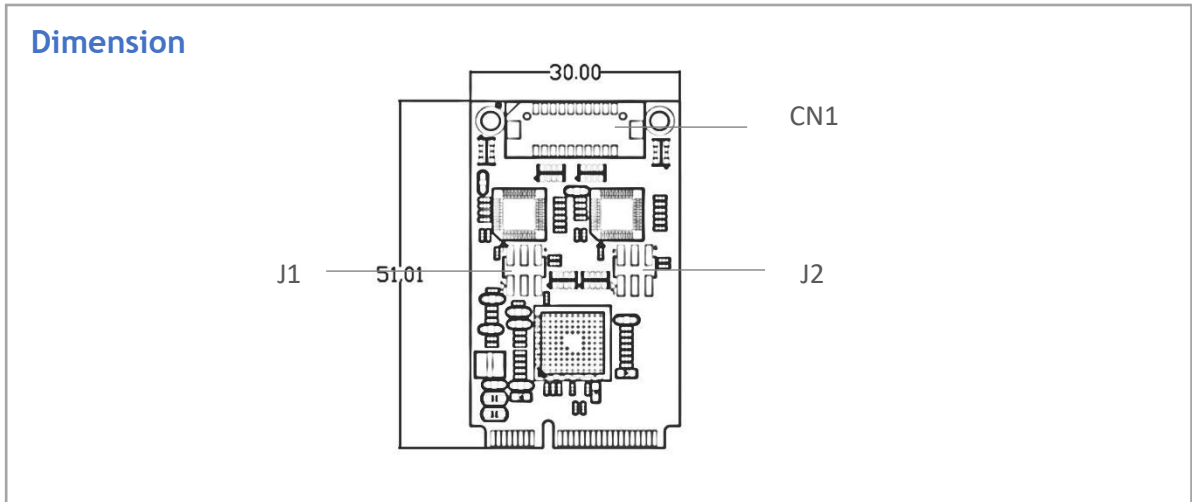
### Product Overview

Cadmus’s MS352 is rugged Mini PCIe modules that are ideal for adding extra serial port capabilities to any system with minimal increase in overall system size and power consumption.

MS352 offering switchable RS-232/422/485, optional isolation and full modem control signals. The wide operating temperature and latching connector and cabling solution allow these modules to be used in harsh environments. Compatibility with a large variety of popular operating systems allows these boards to be easily integrated into a wide array of new and existing systems.

### Specifications

|                             |   |
|-----------------------------|---|
| Module Name                 | MS352   |
| Module Type                 | mPCIe to Dual port RS232/422/485 Module                           |
| Form Factor                 | Mini PCIe full size   |
| Input interface             | PCI Express 2.0   |
| Output Interface            | RS232/422/485 by jumper setting                                   |
| Output Connector            | One 2*10 pin box header<br>One cable with 2 x DB9 connector       |
| Power input                 | On board 3.3V   |
| Dimensions                  | 51 x 30(mm)   |
| Transfer speed              | Data read/write 32-bit operation , up to 25 Mbps serial data rate |
| Compatible Operating System | Windows 7   |
|                             | Windows 8.1   |
|                             | Windows 10  |
|                             | Windows Server 2003   |
|                             | Windows Server 2008   |
| Working Temperature         | 0°C-85°C  |

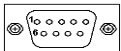


## Pin definition

### IO Port PIN Define Setup (CN1)

| COM1 | RS232 | RS485 | RS422 | COM2 | RS232 | RS485 | RS422 |
|------|-------|-------|-------|------|-------|-------|-------|
| P1   | DSR   |       |       | P11  | DSR   |       |       |
| P2   | DCD   | DATA- | TX-   | P12  | DCD   | DATA- | TX-   |
| P3   | RTS   |       |       | P13  | RTS   |       |       |
| P4   | RXD   | DATA+ | TX+   | P14  | RXD   | DATA+ | TX+   |
| P5   | CTS   |       |       | P15  | CTS   |       |       |
| P6   | TXD   |       | RX+   | P16  | TXD   |       | RX+   |
| P7   | RI    |       |       | P17  | RI    |       |       |
| P8   | DTR   |       | RX-   | P18  | DTR   |       | RX-   |
| P9   | NC    |       |       | P19  | NC    |       |       |
| P10  | GND   |       |       | P20  | GND   |       |       |

### COM port



| Pin | RS232 | RS485 | RS422 |
|-----|-------|-------|-------|
| 1   | DCD   | DATA- | TX-   |
| 2   | RXD   | DATA+ | TX+   |
| 3   | TXD   |       | RX+   |
| 4   | DTR   |       | RX-   |
| 5   | GND   | GND   | GND   |
| 6   | DSR   |       |       |
| 7   | RTS   |       |       |
| 8   | CTS   |       |       |
| 9   | RI    |       |       |

### JUMPER SETTING

| COM1 Function | J1         | COM2 Function | J2         |
|---------------|------------|---------------|------------|
| RS232         | 1-3<br>2-4 | RS232         | 1-3<br>2-4 |
| RS422         | 1-3<br>2-4 | RS422         | 1-3<br>4-6 |
| RS485         | 3-5<br>4-6 | RS485         | 3-5<br>4-6 |

## Ordering Information

### MS352

- MiniPCIe to 2 ports RS232/422/485
- w/ 25cm 2 ports DB9 cable

## Front view

