

MCS6456P

4-port RS-232 PCIe MiniCard
Serial Board with Power Output



Introduction

SUNIX MCS6456P, PCI Express serial communication board, allows users to add or expand four RS-232 COM ports on embedded PC system via full height Mini Card slot. Each RS-232 COM port supports +5 & 12VDC power output over COM 9th pin. It's convenient for users connecting RS-232 devices without addition external power supply.

SUNIX MCS6456P meets PCI Express Full-Mini Card Specification Revision 1.2. Compact PCB design is idea for All-in-One PC, 1 liter PC, or embedded PC application. Furthermore, complete operation system driver support, 128-bytes onboard FIFO buffer, 16C950 compatible UART specification, and it is designed with SUNIX native PCI Express UART controller, SUN2410 and as well built with many of SUNIX advanced features and technologies, making it the best solution for commercial and industrial automation applications.

Features

- Expands 4 independent RS-232 serial ports with communication speeds up to 921.6Kbps.
- High speed SUNIX PCI Express SUN2410 16C950 compatible UART controller on-board.
- Support PCI Express Full-Mini Card Specification Revision 1.2
- Each COM provides RS-232 serial ports with +5 & 12VDC power output via COM 9th pin.
- Build-in power socket to source efficient DC power from system.
- On-chip hardware auto flow control to guarantee no data loss.
- Built-in ± 15 KV ESD protection for all serial signals meets IEC1000-4-2 standard.
- Plug-n-Play, I/O address and IRQ assigned by BIOS.
- Certified by CE, FCC, RoHS, and Microsoft WHQL approval.
- Support Microsoft Windows, Linux, and DOS.



Specifications

Serial Communication

Interface	RS-232	Signal	DCD, TxD, RxD, RTS, CTS, DTR, DSR, GND, +5 /12VDC
Controller	SUNIX SUN2410 (16C950 UART Compatible)	Baud rate	50bps ~921.6Kbps
BUS	PCI Express x1	Stop bit	1, 1.5, 2
No. of Port	4-port	Parity	even, odd, none, mark, space
IRQ & IO	Assigned by System	Flow Control	None, Xon/Xoff, RTS/CTS
FIFO	128byte Hardware	PCB Connector	DB44 Female
Protection	±15KV ESD protection for each signal Human Body Model (HBM) ±15KV IEC1000-4-2 Air Gap Discharge ±8KV IEC1000-4-2 Contact Discharge		

Driver Support

Windows Client	Windows XP/Vista/7/8/8.1 (X86/X64)
Windows Server	Windows 2000 / 2003 / 2008 / 2008 R2 / 2012 / 2012 R2 (X86/X64)
Windows Embedded	Windows CE 4.2/5.0/6.0/XP Embedded/POSReady 2009/POSReady 7/ Embedded System 2009/Embedded Standard 7
Linux	Linux 2.4.x/2.6.x/3.x
DOS	DOS
FreeBSD	FreeBSD 5.3~5.5 / 6.0~6.4
QNX	QNX 6.3.2/6.4.0
* IBM OS/2	WARP 3/WARP 4
* SCO UnixWare	UnixWare 7.1.3/7.1.4/ Open Server 5.0.7/6.0
* Sun Microsystems	Solaris 10
Note : " * " Supported by special inquiry.	

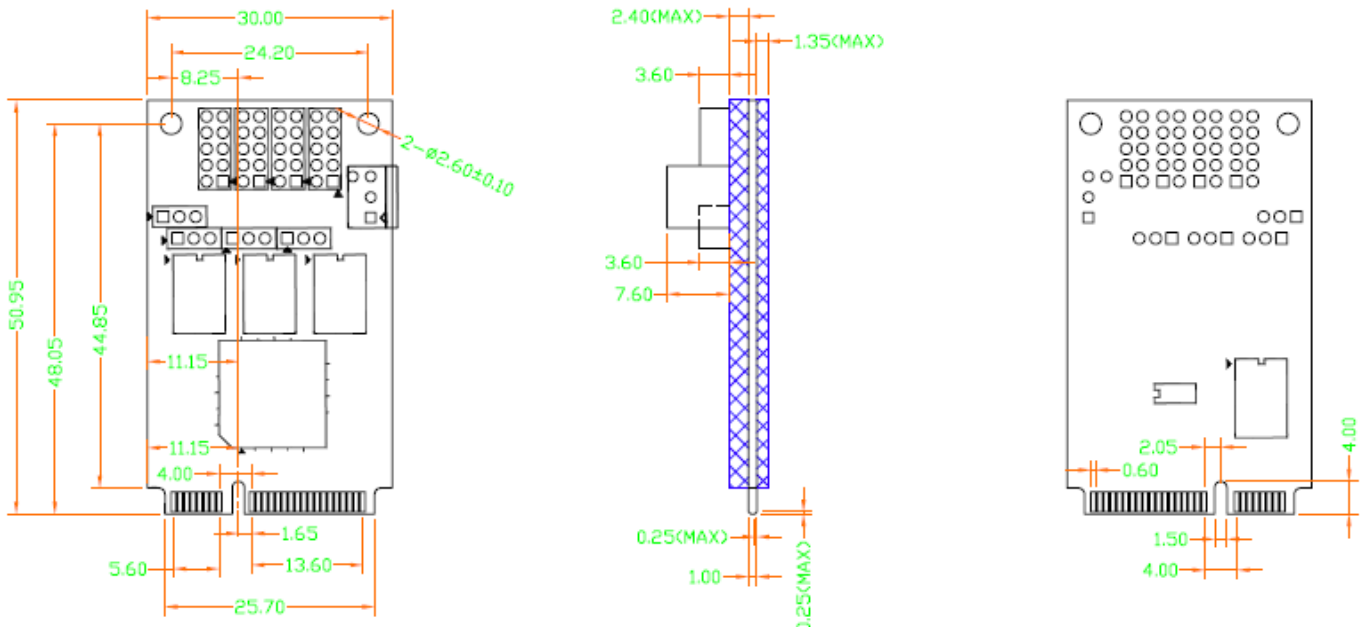
Regulatory Approvals

Hardware	EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, FCC Part 15 Class B, BSMI: CNS13438, C-Tick: CISPR22 AS/NZS, RoHS
Software	Microsoft WHQL Windows ◆ Windows Client: XP/Vista/7/8/8.1 (X86/X64) ◆ Windows Server: 2000 / 2003 / 2008 / 2008 R2 / 2012 / 2012 R2 (X86/X64)

Environment

Operation Temperature	0 to 60°C (32 to 140°F)
Operation Humidity	5 to 95% RH
Storage Temperature	-20 to 85°C (-4 to 185°F)

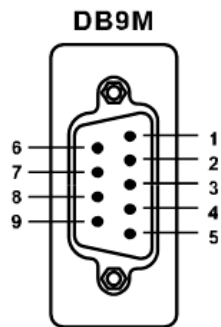
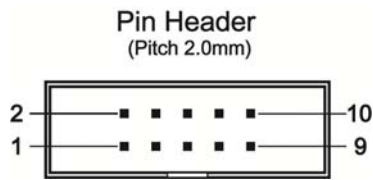
Mechanical Drawings (Unit = mm)



Note:

The height of pin header component (max 7.6mm) exceeds PCI Express Full-Mini Card Specification (max 2.4mm) on the PCB top side. This card uses header to access power and standard DB9M COM port to the system external panel. If there is any mechanical chassis compatible problem, please contact us for the ODM service.

Pin Assignment



PIN	Pin Header	PIN	Pin Header
DCD	1	CTS	6
DSR	2	DTR	7
RxD	3	RI	8
RTS	4	GND	9
TxD	5	-	10

PIN	DB9M
DCD	1
RxD	2
TxD	3
DTR	4
GND	5
DSR	6
RTS	7
CTS	8
+5V / +12V / NA	9

Note:

SUNIX provides special cable for user who needs the DB9M connector 1st / 4th pin power output. This cable is the additional accessory for options.



Packing List

Packing Content

- MCS6456P – 4-port RS-232 PCI Express MiniCard Serial Board
With Power Output
- Quick Installation Guide
- Software CD ROM
- 5x2 Pin Header (Pitch 2.0mm) to 1-port DB9 Male IDC Ribbon Cable x 4
- CD ROM Type Power cable x 1



Optional Accessories

- 5x2 Pin Header (Pitch 2.0mm) to 1-port DB9 Male IDC Ribbon Cable, 30 cm
- CD ROM Type Power Cable, 15 cm

