



MIO6479A

2-port RS-232 & 1-port Parallel
PCI Express Multi-I/O Board



Introduction

The majority of today's motherboards are not equipped with any RS-232 or Parallel port. With SUNIX MIO6479A Multi I/O board, users can expand two RS-232 COM and one IEEE1284 LPT ports to their system, allowing them to use serial and parallel devices further. This board is compatible with PCI Express x1, x2, x4, x8 and x16 lane, allowing the board to be installed in virtually any PC system. SUNIX MIO6479A built-in SUNIX high performance and realizable native PCI Express controller, and as well built with many of SUNIX advanced features and technologies, making it the advanced and high efficient solution for commercial and industrial automation application.

Features

- Expands 2-port RS-232 COM and 1-port IEEE1284 LPT on system.
- With high reliable SUNIX SUN2410 native PCI Express 16C950 UART and IEEE1284 controller.
- Designed to meet PCI Express Base Specification Revision 2.0.
- Supports x1, x2, x4, x8, x16 (lane) PCI Express Bus connector keys.
- On-chip hardware auto flow control to guarantee no data loss.
- Built-in $\pm 15\text{KV}$ ESD protection for all serial signals meets IEC1000-4-2 standard.
- Support IEEE 1284-1994 parallel port standard.
 - * ECP(Enhance Capacity Port) / EPP(Enhance Parallel Port).
 - * SPP (Standard Parallel Port) / BPP (Bi-direction Parallel Port).
- Plug-n-Play, I/O address and IRQ assigned by system.
- Certified by CE, FCC, RoHS, and Microsoft WHQL approval.
- Support Microsoft Windows, Linux, and DOS.



Specifications

General

Interface	RS-232 and IEEE1284
Controller	SUNIX SUN2410 (16C950 UART Compatible)
BUS	PCI Express Spec 2.0, Single-Lane (x1)
IRQ & IO	Assigned by System

Serial Communication

Interface	RS-232
No. of Port	2-port
FIFO	128byte Hardware
Signal	DCD, TxD, RxD, RTS, CTS, DTR, DSR, GND, RI
Baud rate	50bps ~ 115.2Kbps
Stop bit	1, 1.5, 2
Parity	even, odd, none, mark, space
Flow Control	None, Xon/Xoff, RTS/CTS
Protection	±15KV ESD protection for each signal Human Body Model (HBM) ±15KV IEC1000-4-2 Air Gap Discharge ±8KV IEC1000-4-2 Contact Discharge
PCB Connector	DB9 Male

Parallel Communication

Interface	IEEE1284
No. of Port	1-port
Mode	SPP / ECP / EPP / BPP
FIFO	16byte Hardware
Speed	Maximum 1.8MBps
PCB Connector	DB25 Female

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



Regulatory Approvals

Hardware	CE EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, VCCI Class B 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)

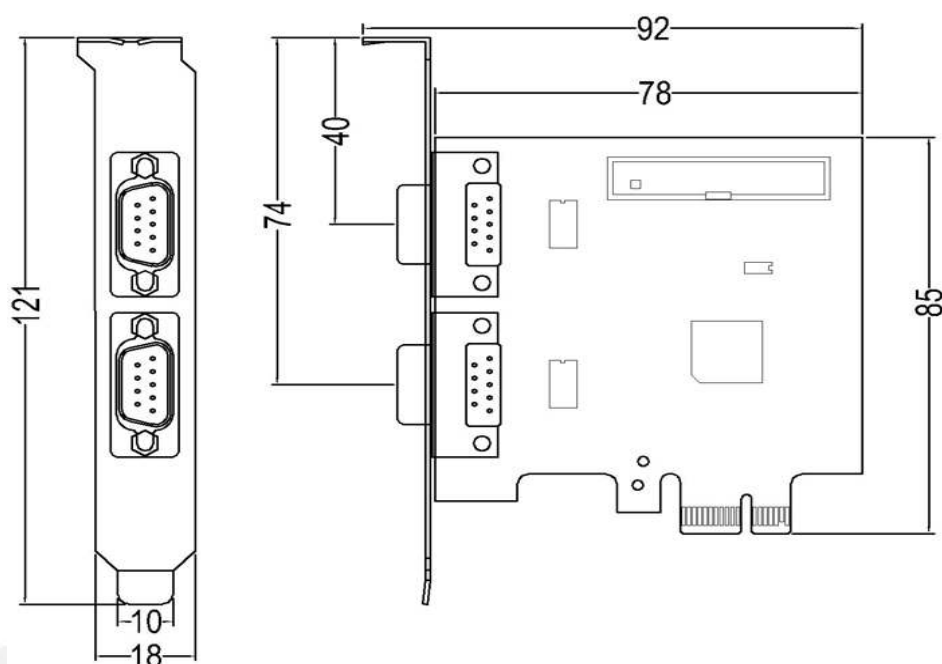
Dimension

PCB Dimension	78 x 85 mm
Bracket	Standard 121 mm
Bracket Space	1

Note:

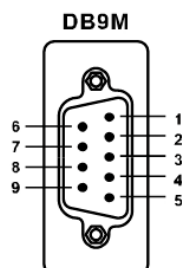
- * LPT port does not support LPT Key Locker Parallel device.
- * LPT port does not support legacy 278/378/3BC ISA address under Microsoft Windows nor Linux operation systems.
- * ECP / EPP / SPP / BPP modes work under Windows, and Linux driver only supports SPP mode

Mechanical Drawings (Unit = mm)



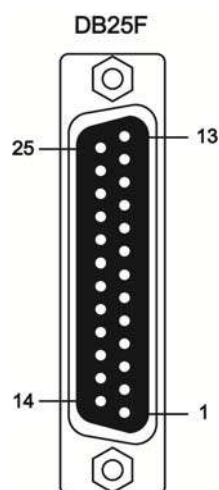
Pin Assignment

Serial



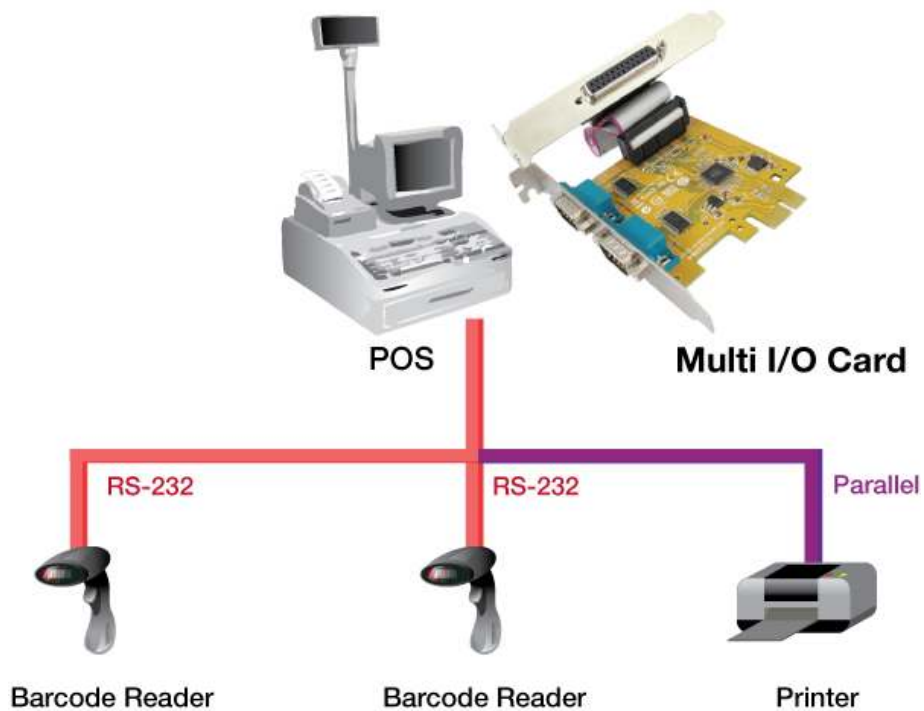
DB9M	PIN
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

Parallel



DB25F	PIN	DB25F	PIN
1	STROBE	14	AUTO FEED
2	DATA0	15	ERROR
3	DATA1	16	INT
4	DATA2	17	SELECT INPUT
5	DATA3	18	GND
6	DATA4	19	GND
7	DATA5	20	GND
8	DATA6	21	GND
9	DATA7	22	GND
10	ACKNOWLEDGE	23	GND
11	BUSY	24	GND
12	PAPER EMPTY	25	GND
13	SELECT		

Application



Package

- MIO6479A- 2-port RS-232 & 1-port Parallel PCI Express Multi-I/O Board.
- Quick Installation Guide.
- Software CD Driver
- 13x2 Pin Header to DB25F Flat Cable With Standard Bracket

Part Number: 1WDB-25F04026G1001



Optional Accessories

- PCIe holder
Part No.: 13BF-PCIEFIX010000





Order Information

Multi I/O Interface

Bus	Port		Board Connector		Serial Baud Rate	Power output	Bracket	Model NO.			
	COM	LPT	COM	LPT							
PCI Express	1	1	DB9 Male	DB25 Female	115.2Kbps	-	Standard	MIO6469A			
					921.6Kbps			MIO6469H			
	2	1	DB9 Male	DB25 Female	115.2Kbps			MIO6479A			
					921.6Kbps			MIO6479H			
			DB44 Female		115.2Kbps		Low Profile	MIO6479AL			
					921.6Kbps			MIO6479HL			
	4	1	DB44 Female	13x2 Pin Header	115.2Kbps		Standard	MIO5499A			
					921.6Kbps			MIO5499H			
					115.2Kbps		Low Profile	MIO5499AL			
					921.6Kbps			MIO5499HL			
PCI	1	1	DB9 Male	DB25 Female	115.2Kbps	5V/12V	Standard	MIO5069A			
					921.6Kbps			-	MIO5069P		
								5V/12V	MIO5069H		
			5x2 Pin Header	13x2 Pin Header	115.2Kbps			-	Standard	MIO5069U	
					921.6Kbps	Low Profile	MIO5069UL				
						Standard	MIO5069UH				
	2	1	DB9 Male	13x2 Pin Header	115.2Kbps	-	Standard		MIO5079A		
					921.6Kbps			MIO5079H			
			5x2 Pin Header	13x2 Pin Header	115.2Kbps			Low Profile	MIO5079U		
					921.6Kbps				MIO5079UL		
			DB44 Female		115.2Kbps		Standard	MIO5079UH			
					921.6Kbps			Low Profile	MIO5079AL		
			4	1	DB44 Female		13x2 Pin Header	115.2Kbps	-	Standard	MIO5079HL
								921.6Kbps			MIO5099A
	115.2Kbps	Low Profile				MIO5099H					
	921.6Kbps					MIO5099AL					
	921.6Kbps	MIO5099HL									
	Express Card	1	1	DB44 Female		921.6Kbps	-	34mm		ECM1010	
2		1	DB44 Female		34mm			ECM2010			

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