

## PAR5408AL

1-port IEEE1284 Parallel  
PCI Express  
Low Profile Board



### Introduction

SUNIX PAR5408AL PCI Express and PCI interface IEEE1284 Parallel communication boards meet the PCI Express Base Specification Revision 1.1 specification. SUNIX PAR5408AL is compatible with PCI Express x1, x2, x4, x8 and x16 lane and PCI/PCI-x Bus, allowing it to be installed in any slim size PC-based system with low profile bracket structure. With SUNIX PAR5408AL IEEE1284 Parallel board, users can expand one parallel port to their system, allowing them to use parallel devices further. It is ideal for printers, IC programmers, ZIP Drives, or any Parallel devices\*. SUNIX PAR5408AL built-in SUNIX high performance and realizable single 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

- High reliability SUNIX SUN1989 Parallel controller on-board.
- Expands one IEEE1284 Parallel port on system.
- Designed to meet PCI Express Base Specification Revision 1.1.
- Full single-lane (or x1) PCI Express throughput.
- Support IEEE 1284-1994 parallel port standard
  - ECP (Enhance Capacity Port) / EPP (Enhance Parallel Port)
  - SPP (Standard Parallel Port) / BPP (Bi-direction Parallel Port).
- Auto-switching between ECP/EPP/SPP/BPP modes without configuration.
- Plug-n-Play, I/O address and IRQ assigned by system.
- Low profile bracket design idea for slim or portable PC.
- Certified by CE, FCC, RoHS, and Microsoft WHQL approval.
- Support Microsoft Windows, Linux, and DOS.



## Specifications

### Parallel Communication

<b>Interface</b>	IEEE1284	<b>BUS</b>	PCI Express one lane (x1)
<b>Controller</b>	SUNIX SUN1989	<b>IRQ &amp; IO</b>	Assigned by System
<b>No. of Port</b>	1-port	<b>Speed</b>	Maximum 1.8MBps
<b>Mode</b>	SPP/ECP/EPP/BPP	<b>FIFO</b>	16byte Hardware
<b>PCB Connector</b>	DB25 Female		

### Driver Support

<b>Microsoft Client</b>	XP/Vista/7 (X86/X64)
<b>Microsoft Server</b>	2000/2003/2008 (X86/X64)
<b>Microsoft Embedded</b>	XP Embedded/POS Ready 2009/ Embedded System 2009
<b>Linux</b>	Linux 2.4.x/2.6.x
<b>DOS</b>	DOS

### Regulatory Approvals

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

### Environment

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

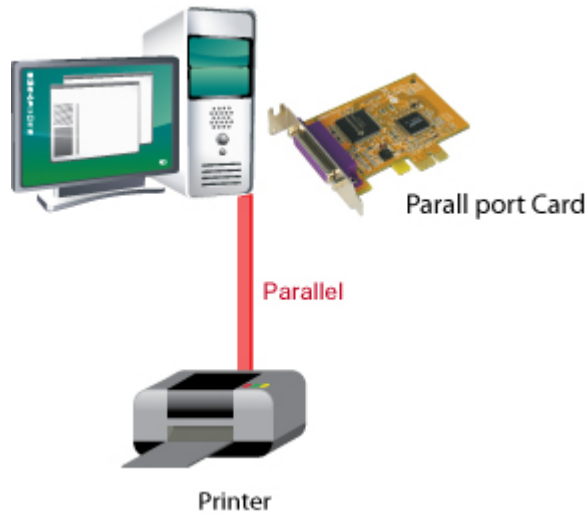
### Dimension

<b>PCB Dimension</b>	91 x 69 mm
<b>Bracket</b>	Low Profile 80 mm
<b>Bracket Space</b>	1

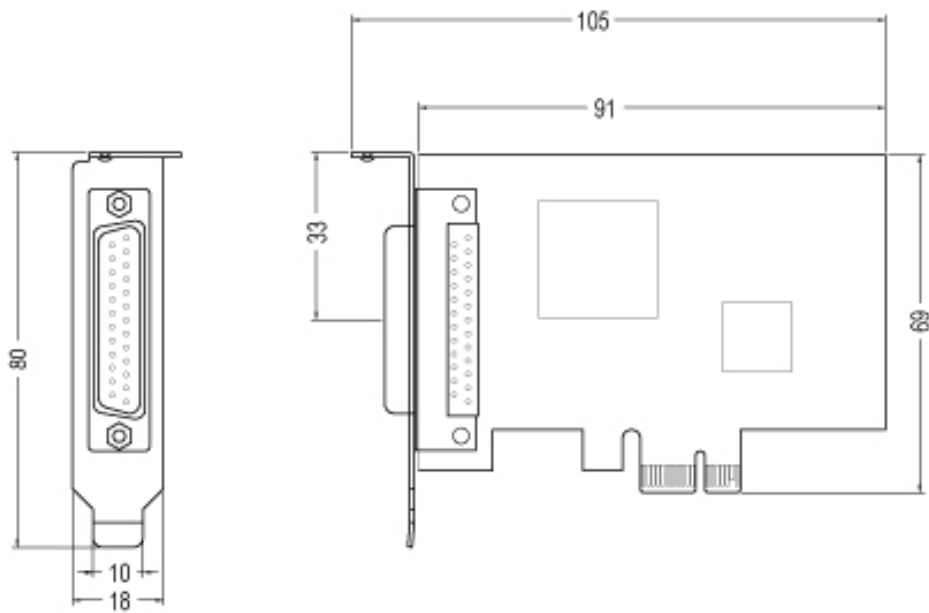
Note:

- \* Do not support LPT Key Locker Parallel device.
- \* LPT port does not support legacy 278/378 ISA address under Windows nor Linux operation systems, but only DOS mode.

## Application



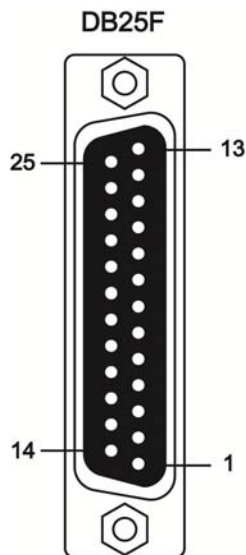
## Mechanical Drawings (Unit = mm)





## Pin Assignment

### Parallel



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

## Packing List

### Packing Content

- PAR5408AL- 1-port IEEE1284 Parallel PCI Express Low Profile Board
- Quick Installation Guide
- Software CD ROM

## Order Information

### Parallel Interface

Bus	Port	Connector	Bracket	Model NO.
PCI Express	2	DB25 Female & 13 x 2 Pin Header	Standard	PAR4418A
		DB44 Female	Low Profile	PAR4418A L
	1	DB25 Female	Standard	PAR5408A
			Low Profile	PAR5408A L
PCI	2	DB25 Female & 13 x 2 Pin Header	Standard	PAR4018A
		DB44 Female	Low Profile	PAR4018A L
	1	DB25 Female	Standard	PAR5008A
			Low Profile	PAR5008A L
Express Card	1	DB25 Female	34mm	ECP1000
CardBus	1	DB25 Female	54mm	CBP1000