40

PCI-FC16U

Universal PCI, 16-channel Counter/Frequency Board with 32 Programmable Digital I/O Channels







- Universal PCI (3.3 V/5 V) Interface
- 32 Programmable Digital I/O Channels
- 16-channel Up Counter or Frequency Measurement (Pulse Width = 2 μs Min.)
- Supports Card ID (SMD Switch)
- Digital Filter: 1 to 32767 (µs)
- Pull-high and Pull-low Resistors for DI Channels



Introduction

The PCI-FC16U is a 32-bit hardware-type high-speed Counter/Frequency board that supports both the 3.3 V and the 5 V Universal PCI bus. The card provides 16 channels that can be individually configured for either frequency measurement or up-counter applications, and can support high-frequency signals up to 250 kHz. The PCI-FC16U board also includes 32 programmable Digital I/O channels.

The PCI-FC16U board includes an onboard Card ID switch that enables the board to be easily recognized via software if two or more boards are installed in the same computer. The pull-high/pull-low resistors allow the DI status to be predefined as either high or low instead of remaining floating if the DI channels are disconnected or interrupted.



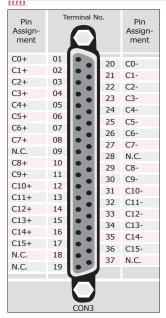
Software

Drivers✓ 32/64-bit Windows XP/2003/2008/7/8/10 ✓ Linux

Sample Programs

✓ VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

Pin Assignments



Assign- ment	Terminal No.			Assign- ment	
PB 0	01	0	0	02	PB 1
PB 2	03	0	0	04	PB 3
PB 4	05	0	0	06	PB 5
PB 6	07	Lo	0	08	PB 7
PB 8	09	0	0	10	PB 9
PB 10	10	0	0	12	PB 11
PB 12	12	Γo.	0	14	PB 13
PB 14	14	0	0	16	PB 15
GND	16	0	0	18	GND
+5 V	18	0	0	20	+12 V
	CON1				
D'.					D'

Pin Assign- ment	Terminal No.			Pin Assign- ment	
PA 0	01	0	0	02	PA 1
PA 2	03	0	0	04	PA 3
PA 4	05	0	0	06	PA 5
PA 6	07	Lo	0	08	PA 7
PA 8	09	0	0	10	PA 9
PA 10	11	0	0	12	PA 11
PA 12	13	Γ0	0	14	PA 13
PA 14	15	0	0	16	PA 15
GND	17	0	0	18	GND
+5 V	19	0	0	20	+12 V
CON2					

Ordering Information

Universal PCI, 16-channel Counter/Frequency Board with
32 Programmable DI/O Channels (RoHS).
Includes one CA-4002 D-sub Connector.

Hardware Specifications

Counter/Frequency				
Counter/Frequency		16-channel Up Counter		
		16-channel Frequency		
Resolution		32-bit		
Digital Noise Filter		1 ~ 32767 μs		
Min. Pulse Width		2 μs (250 kHz Max.)		
Isolated Input	ON Voltage	+4.5 ~ +30 VDC		
Level	OFF Voltage	+1 VDC Max.		
Isolation Voltage		2500 VDC		
ESD Protection		2 kV (Contact for each Channel)		
Programmable DIO				
Channels		32		
Digital I/O				
Input Voltage	Logic 0	0.8 V (Max.)		
Triput voitage	Logic 1	2.0 V (Min.)		
Output Voltage	Logic 0	0.4 V (Max.)		
Output voltage	Logic 1	2.4 V (Min.)		
Output Capability	Sink	2.4 mA @ 0.8 V		
	Source	0.8 mA @ 2.0 V		
General				
Bus Type		3.3 V/5 V Universal PCI, 32-bit, 33 MHz		
Card ID		Yes (4-bit)		
Connectors		Female DB37 x 1, 20-pin Box Header x 2		
Power Consumption		700 mA @ +5 V		
Operating Temperature		0°C to +60°C		
Humidity		5 to 85% RH, Non-condensing		

Accessories

	CA-2010	20-pin Flat Cable, 1 m
**	CA-4002	37-pin Male D-sub Connector with Plastic Cover
4	CA-3710DM	DB-37 Male-Male Cable, 1 m, 180° (RoHS)
District Street	DN-20	DIN-Rail Mountable 20-pin D-sub Connector Board
	DN-37	DIN-Rail Mountable 37-pin D-sub Connector Board