I/O Cards

PCI-M512U

Universal PCI, 512 KB Memory Board
with DIO

CE FC RoHS

Features ▶▶▶▶

- Universal PCI (3.3 V/5 V) interface
- Two Li-batteries for battery-backup the data of SRAM
- 16-ch 5 V TTL D/O
- 12-ch 5 V TTL D/I
- On-board 512 KB SRAM
- LED indicators for low- and bad-battery status
- Drop-in replacement for the PCI-M512
- 4-bit battery status Readback (DI0~3)

Introduction

The PCI-M512U provides battery-backup 512 KB SRAM, 12-bit D/I and 16-bit D/O. In addition, the PCI-M512U supports both 5 V and 3.3 V PCI bus. The PCI-M512U (Universal PCI version) is designed as a drop-in replacement for the PCI-M512 (PCI version), so users can replace a PCI-M512 by a PCI-M512U directly without any software or driver modification.

The PCI-M512U is equipped with two Li-batteries to maintain the content of the 512 KB SRAM when PC power loss occurs. The two Li-batteries can continue supplying power to the SRAM to retain the important data for 10 years. The two-battery design also makes it safe to replace new batteries without losing data; when one battery is taken out for replacing a new one, the other continues to provide power to the SRAM.

4 LED indicators on the board are provided for giving clear understanding of the battery states such as normal, low voltage or fault. The PCI-M512U is an ideal solution for improving system reliability.

Software

- DOS Lib and TC/BC/MSC sample program (with source codes)
- VB/VC/Delphi/BCB/VB.NET/C#.NET sample programs with source codes
- DLL and OCX SDK for 32-bit and 64-bit Windows XP/2003/Vista/2008/7
- Supports LabVIEW and Linux

Hardware Specifications

Digital I/O	
I/O Channels	D/I: 12-ch, D/O: 16-ch , 5 V TTL
Input Voltage	Logic 0: 0.8 V max., Logic 1: 2.0 V min.
Output Voltage	Logic 0: 0.4 V max., Logic 1: 2.4 V min.
Output Capability	Sink: 2.4 mA @ 0.8 V, Source: 0.8 mA @ 2.0 V
Response Speed	1.4 MHz(Typical)
Special	
SRAM Size	512 KB
Li-Battery	BT1 and BT2
Battery Status bits	BT1 Low, BT1 Bad, BT2 Low, BT2 Bad (low voltage=2.3 V, bad voltage=2.1 V)
LED Indicators	BT1 Low (Green), BT1 Bad (Red) BT2 Low (Green), BT2 Bad (Red)
General	
Bus Type	Universal PCI, 3.3 V and 5 V, 33 MHz, 32-bit, Plug and Play
Connectors	20-pin box header x2
Power Consumption	420 mA @ +5 V
Operating Temperature	-20 °C ~ +60 °C
Storage Temperature	-40 °C ~ +85 °C
Humidity	0 ~ 90% RH, non-condensing

Pin Assignments

CN1

	1	2	
DO 0	1	2	DO 1
DO 2	3	4	DO 3
DO 4	5	6	DO 5
DO 6	7	8	DO 7
DO 8	9	10	DO 9
DO 10	11	12	DO11
DO 12	13	14	DO13
DO 14	15	16	DO15
GND	17	18	GND
+5V	19	20	+12V

CN2

	1	2	
	1	2	
	3	4	
DI 4	5	6	DI 5
DI 6	7	8	DI 7
DI 8	9	10	DI 9
DI 10	11	12	DI 11
DI 12	13	14	DI 13
DI 14	15	16	DI 15
GND	17	18	GND
+5V	19	20	+12V
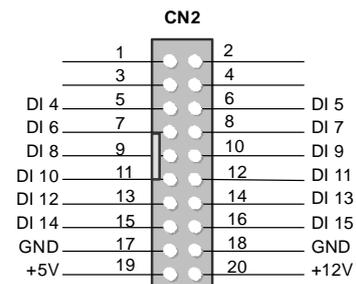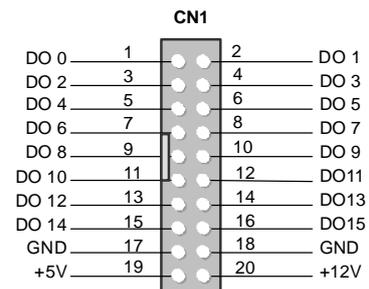
Ordering Information

PCI-M512U CR	Universal PCI, 512 KB Memory Board with DIO (RoHS)