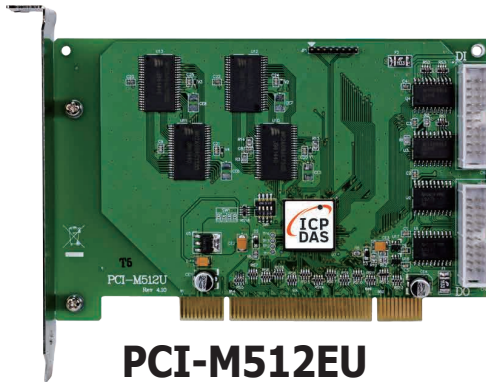




PCI-M512EU

Universal PCI, 512 KB MRAM Board with 16-ch DI, 16-ch DO

Features

- Universal PCI (3.3 V/5 V) Interface
- 512 KB MRAM Onboard
 - Non-volatile Random-access Memory Technology
 - Retains Data when Power is Turned Off
 - Unlimited Write Endurance
- 16-channel, 5 V/TTL Digital Output
- 12-channel, 5 V/TTL Digital Input



Introduction

The PCI-M512EU is a 512 KB MRAM (Magnetoresistive Random Access Memory) board and supports both the 3.3 V and the 5 V Universal PCI bus. The PCI-M512EU provides 12 Digital Input channels and 16 Digital Output channels to connect various devices.

The MRAM is a non-volatile random-access memory technology that the fairly new type of memory. The main features of MRAM include unlimited write endurance, read and write cycles with no delay and data retention even after power loss, so the data can be saved permanently. The PCI-M512EU is an ideal solution for improving system reliability when the power outage.

Software

Drivers

- ✓ 32/64-bit Windows 10/11
- ✓ Linux

Sample Programs

- ✓ DOS Lib and TC/BC/MSC Demo
- ✓ VB/VC/Delphi/VB.NET/C#.NET/VC.NET/LabVIEW/Python/MATLAB

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
DO 0	01	DO 1
DO 2	03	DO 3
DO 4	05	DO 5
DO 6	07	DO 7
DO 8	09	DO 9
DO 10	10	DO 11
DO 12	12	DO 13
DO 14	14	DO 15
GND	16	GND
+5 V	18	+12 V

CN1

Pin Assignment	Terminal No.	Pin Assignment
	01	
	03	
DI 4	05	DI 5
DI 6	07	DI 7
DI 8	09	DI 9
DI 10	11	DI 11
DI 12	13	DI 13
DI 14	15	DI 15
GND	17	GND
+5 V	19	+12 V

CN2

Hardware Specifications

Memory	
Type	MRAM
Size	512 KB
Hardware	
Connector	20-pin box header x 2
Card ID	Yes (4-bit)
Digital Input	
Channels	12
Type	5 V/TTL
ON Voltage Level	2.0 V Min.
OFF Voltage Level	0.8 V Max.
Response Speed	1.0 MHz (Typical)
Trigger Mode	Static Update
Digital Output	
Channels	16
Type	5 V/TTL
Operation Mode	Static Update
Load Voltage	Logic 0: 0.4 V Max. Logic 1: 2.4 V Min.
Load Current	Sink: 2.4 mA @ 0.8 V Source: 0.8 mA @ 2.0 V
Response Speed	1.0 MHz (Typical)
PC Bus	
Type	3.3 V/5 V Universal PCI, 32-bit, 33 MHz
Data Bus	8-bit
Power	
Consumption	580 mA @ +5 V
Mechanical	
Dimensions (mm)	86 x 134 x 22 (W x L x D)
Environment	
Operating Temperature	0 ~ +60°C
Storage Temperature	-20 ~ +70°C
Humidity	5 ~ 85% RH, Non-condensing

Ordering Information

PCI-M512EU CR	Universal PCI, 512 KB MRAM Board with 16-ch DI, 16-ch DO (RoHS)
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