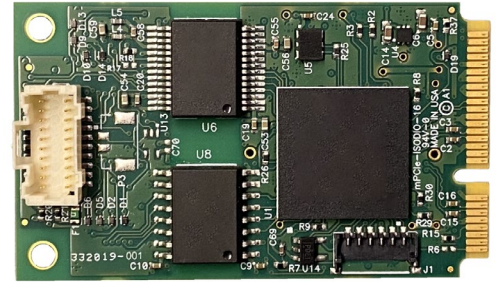


## FEATURES

- PCI EXPRESS MINI CARD (mPCIe) TYPE F1, WITH LATCHING I/O CONNECTOR
- 8 ISOLATED INPUTS, 8 ISOLATED OUTPUTS, 3.3V SIGNALING
- USING THE LATEST ISOLATION TECHNOLOGY WITH 5000V ISOLATORS
- PER IPC-2221B: 1500V ISOLATION I/O-TO-COMPUTER ON ALL SIGNALS
- CHANGE-OF-STATE (CoS) DETECTION IRQ GENERATION
- 18kV ESD DIODE PROTECTION
- OPTIONAL 9" CABLE (228MM) TO PANEL MOUNTABLE DB25F
- AVAILABLE INDUSTRIAL TEMP (-40°C TO +85°C), ROHS STANDARD
- ON-BOARD 32-BIT TIMER WATCHDOG TO RESET BOARD TO DEFAULT POWER-UP VALUES

## MODEL MPCIE-ISODIO-16

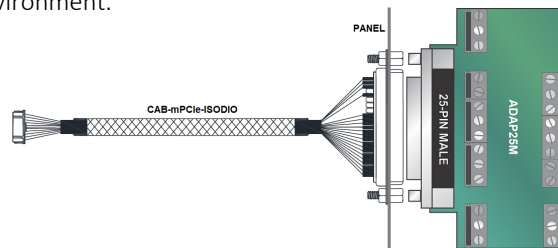
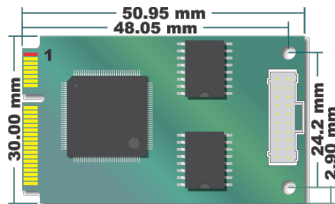


## FUNCTIONAL DESCRIPTION

The mPCIe-ISODIO-16 is a type F1 PCI Express Mini Card (mPCIe) that provides 8 isolated digital inputs and 8 isolated digital outputs. Featuring Tru-Iso™ I/O-to-PC isolation this card provides a robust solution to common signal level and grounding issues when used in electrically noisy environments; at up to 1500V between I/O and the host computer, it's like data insurance.

Change of State (COS) detection and interrupt generation capabilities are designed to relieve software from polling routines that consume valuable processing time. Inputs can be programmed for detecting state changes on their lines, in which any changes of the bits (low-to-high or high-to-low) will generate an IRQ. An ISR (interrupt service routine) then determines which bit changed state and clears the interrupt.

Integration with your embedded system couldn't be easier using our optional 9" cable assembly (DSub 25 pin female connector) designed to be panel-mounted to the enclosure, or in any application environment.



## SPECIAL ORDER

Please contact ACCES with your precise requirement. Examples of special orders would be conformal coating, custom software, custom product labeling, and more. We will work with you to provide *exactly* what is required.

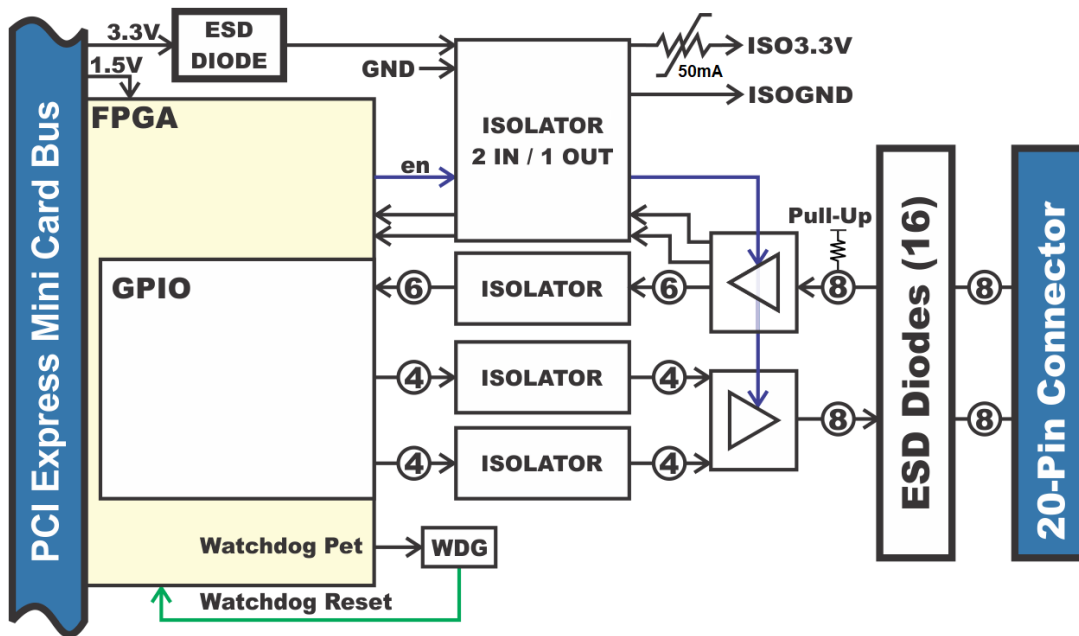
## ACCESSORIES

### Available accessories include:

<b>CAB-mPCIe-ISODIO</b>	Cable Assembly, 20 pin to DB25F, 9"
<b>ADAP25M</b>	25 Pin Screw Terminal Accessory
<b>mPCIe-HDW-KIT2</b>	Mounting hardware for 2mm
<b>mPCIe-HDW-KIT2.5</b>	Mounting hardware for 2.5mm

## SOFTWARE

The card is supported for use in most operating systems and includes a free Linux and Windows compatible software package. This package contains sample programs and source code in C#, Delphi, and Visual C++ for Windows. Also provided is a graphical setup program in Windows. Linux support includes installation files and basic samples for programming from user level via an open source kernel driver. Third party support includes a Windows standard DLL interface usable from the most popular application programs including LabVIEW, MATLAB, and more. Embedded OS support includes the family of Windows Operating Systems including IoT. ACCES is also now offering a VxWorks driver/library for the ultimate real-time process monitoring and control solution.



## PC Interface

PCI Express Mini Card	Type F1 "Full Length"
-----------------------	-----------------------

## Isolated Inputs

Number	8	
Voltage	Logic High	2.0V to 5V
	Logic Low	0V to 0.8V

## Isolated Outputs

Number	8	
Voltage	Logic High	2.0V (min), source 32mA
	Logic Low	0.55V (max), sink 64mA
	Power Output	+3.3VDC via 50mA polyfuse (resetting)

## Environmental

Temperature	Operating	0°C to +70°C
	Storage	-40°C to +85°C (-T option)
Humidity	5% to 95% RH, non-condensing	
Power Required	+3.3VDC	500mA
	+1.5VDC	415mA

## Physical

Weight	7.2g	
Size	Length:	50.95mm (2.006")
	Width:	30.00mm (1.181")
I/O connectors	On-card:	Molex 501190-2017 20-pin latching
	Mating:	Molex 501189-2010
	On-cable:	Female, D-Sub Miniature, 25-pin
	Mating:	Male, D-Sub Miniature, 25-pin

## Isolation

Tru-Iso	IPC-2221B
I/O to PC	1500 V peak (AC or DC)
	UL-1577
	UL recognition (pending): 5000 V rms for 1 minute

Careful attention has been paid to isolation design, including extensive keep-out zones and hand-routed circuit paths, as well as component and material selection.

Signal Definitions	
Signal	Meanings
IN	Isolated Input
OUT	Isolated Output
ISOGND	Isolated Ground
VCCIO	Fused Isolated +3.3VDC @ 0.05A*
N/C	No Connection

\*Keep cumulative power draw from I/O sourcing and VCCIO <50mA

DB-25 Female Pinout			
1	IN 0	14	OUT 0
2	IN 1	15	OUT 1
3	IN 2	16	OUT 2
4	IN 3	17	OUT 3
5	IN 4	18	OUT 4
6	IN 5	19	OUT 5
7	IN 6	20	OUT 6
8	IN 7	21	OUT 7
9	N/C	22	N/C
10	N/C	23	N/C
11	ISOGND	24	N/C
12	ISOGND	25	VCCIO
13	ISOGND		

## ORDERING GUIDE

mPCIe-ISODIO-16	8 Isolated Input, 8 Isolated Output mPCIe Card
	Add -T to the model number for Extended Operating Temperature
CAB-mPCIe-ISODIO	9 inch 20 pin to panel mountable DB25F cable