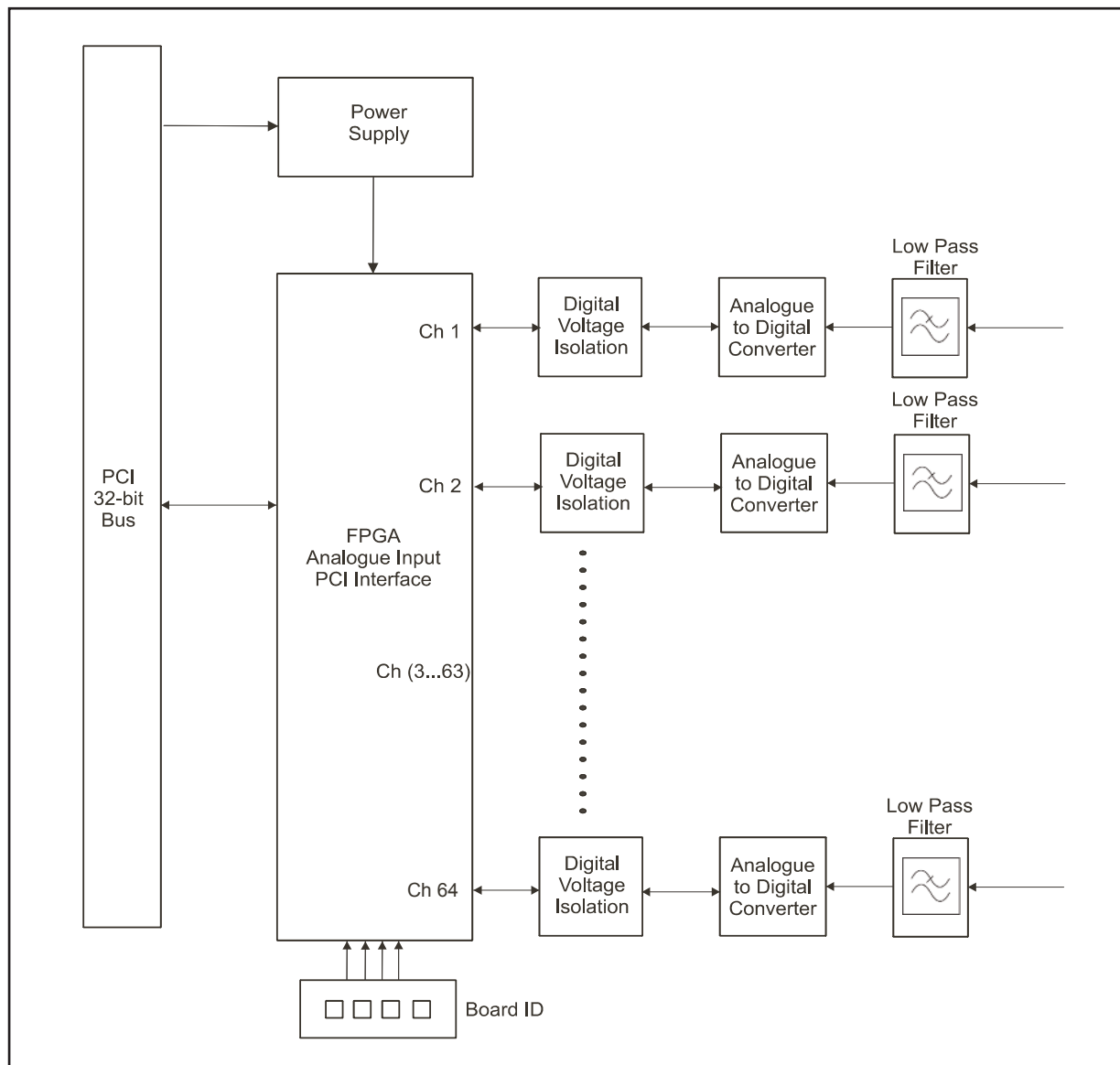


## ► 6U cPCI 64-Channel Isolated Analog to Digital Converter Board

The 64-Channel Isolated Analog to Digital Converter (ADC) Board provides 64 high-speed digitally isolated inputs. Each channel features a sample rate of 250 kSps. A Field-Programmable Gate Array (FPGA) is used to provide access to the digital data over the PCI bus.

Input channel to system isolation is 2 500 V RMS.



**64-Channel Isolated Analog to Digital Converter Board**

### Architecture

A FPGA is used to control and read the data from the analog to digital converters and provides the PCI Interface. High-speed digital isolators are used to isolate the system side bus from the analog inputs.



## ► 6U cPCI 64-Channel Isolated Analog to Digital Converter Board

### Features

- high number of analog inputs
- programmable inputs
- Air-Cooled and Conduction-Cooled versions
- Commercial, Industrial and Ruggedised grades
- wide range input (-10 to +10 V)
- high sample rate of 250 000 samples per second
- high-speed digital isolation
- board Identification switch
- wide bandwidth (up to 125 kHz)
- input pin overvoltage protection

<b>Formfactor and Bus Interface</b>	PICMG 2.0 (R3.0) 6U CompactPCI 64 bit, 33 MHz, 3,3 V PCI signalling, 5 V tolerant		
<b>Analog Inputs</b>	64 differential or single-ended		
<b>Maximum Sample Rate</b>	250 000 samples/second per channel		
<b>Resolution</b>	16 bit		
<b>Voltage Isolation</b>	2 500 V RMS (input channel to system)		
<b>Input Amplifier</b>	Programmable gains of 1, 2, 4 and 8 (optional 1, 10, 100 and 1000) Maximum slew rate of 0,2 V/μs		
<b>Input Bandwidth</b>	up to 125 kHz (-3 dB)		
<b>Power</b>	3,3 V DC at 2,5 A (8,25 Watt); 5 V at 1,4 A (7 Watt); 12 V at 0,2 A (2,4 Watt)		
<b>MTBF</b>	Figures according to MIL-HDBK-217F, Parts Stress Method		
	Commercial and Industrial Grades	Ground Benign, Controlled, 25 C	900 000 hrs
	Ruggedised Grade	Ground, Mobile, 45 C Naval, Sheltered, 40 C Airborne, Inhabited Cargo, 55 C	90 000 hrs 160 000 hrs 95 000 hrs
<b>Software Drivers</b>	Support for Linux VxWorks, Windows and others are costed options		
<b>Physical Characteristics</b>			
	<b>Cooling Type</b>	<b>Air-Cooled</b>	<b>Conduction-Cooled</b>
<b>Dimensions</b>		233,35 mm x 160 mm	233,35 mm x 160 mm
<b>Mass</b>		500 g +/- 100 g	800 g +/- 100 g
<b>Environmental Specifications</b>			
<b>Grade</b>	<b>Commercial</b>	<b>Industrial</b>	<b>Ruggedised</b>
Temperature			
- Operating	0 C to +55 C	-15 C to +75 C	-40 C to + 85 C
- Storage	-40 C to +85 C	-40 C to +85 C	-55 C to +125 C
Humidity	0% - 90%	0% - 95%	0% - 95%
Shock	10 g peak for 11 ms	20 g peak for 11 ms	40 g peak for 11 ms
Vibration			
- Sine	2 g (peak) at 10 Hz to 100 Hz	5 g (peak) at 5 Hz to 2 kHz	10 g (peak) at 5 Hz to 2 kHz
- Random	0,04 g²/Hz at 15 Hz to 2 kHz	0,06 g²/Hz at 15 Hz to 2 kHz	0,1 g²/Hz at 15 Hz to 2 kHz
	<b>Designation</b>	<b>Cooling</b>	<b>Grade</b>
	CCII/ADC/6UCPCI/64C/BP/COM	Air	Commercial
	CCII/ADC/6UCPCI/64C/BP/IND	Air	Industrial
	CCII/ADC/6UCPCI/64C/BP/RGD	Air	Ruggedised
	CCII/ADC/6UCPCI/64C/BP/CC	Conduction	Ruggedised