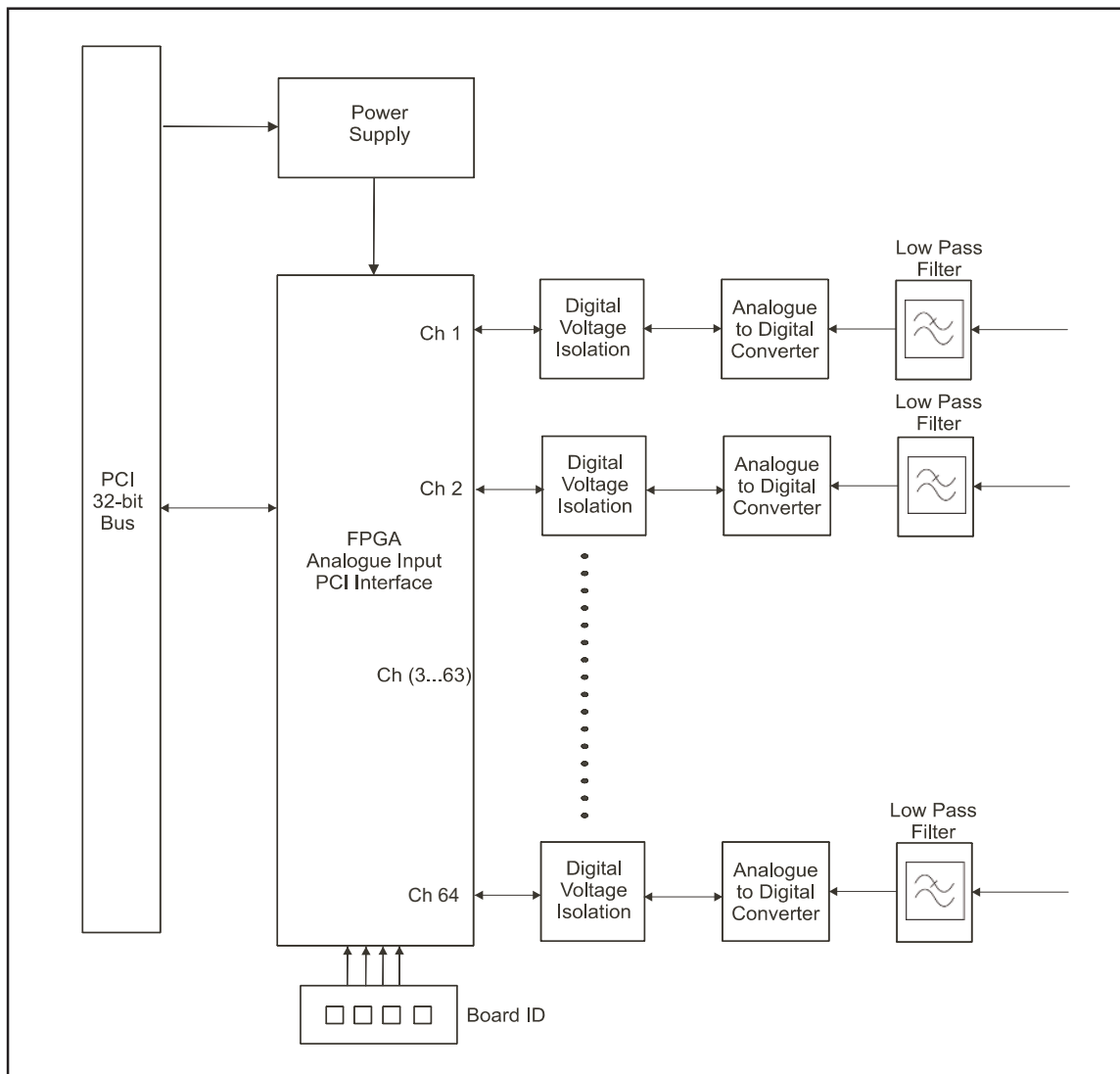


► 6U cPCI 64-Channel Isolated Analog to Digital Converter Board

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

Formfactor and Bus Interface	PICMG 2.0 (R3.0) 6U CompactPCI 64 bit, 33 MHz, 3,3 V PCI signalling, 5 V tolerant		
Analog Inputs	64 differential or single-ended		
Maximum Sample Rate	250 000 samples/second per channel		
Resolution	16 bit		
Voltage Isolation	2 500 V RMS (input channel to system)		
Input Amplifier	Programmable gains of 1, 2, 4 and 8 (optional 1, 10, 100 and 1000) Maximum slew rate of 0,2 V/μs		
Input Bandwidth	up to 125 kHz (-3 dB)		
Power	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)		
MTBF	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
Software Drivers	Support for Linux VxWorks, Windows and others are costed options		
Physical Characteristics			
	Cooling Type	Air-Cooled	Conduction-Cooled
Dimensions		233,35 mm x 160 mm	233,35 mm x 160 mm
Mass		500 g +/- 100 g	800 g +/- 100 g
Environmental Specifications			
Grade	Commercial	Industrial	Ruggedised
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
	Designation	Cooling	Grade
	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