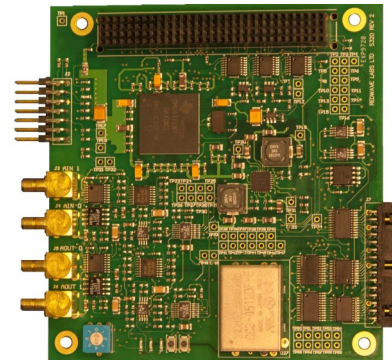


Introduction

S320 DAQ PC-104 (PCI) 16 bit Analog Input (2SE/1DI, 1.2 MS/s), 16 bit Analog Output (2), 16 DIO with TI DM6437 (4800 MIPS)

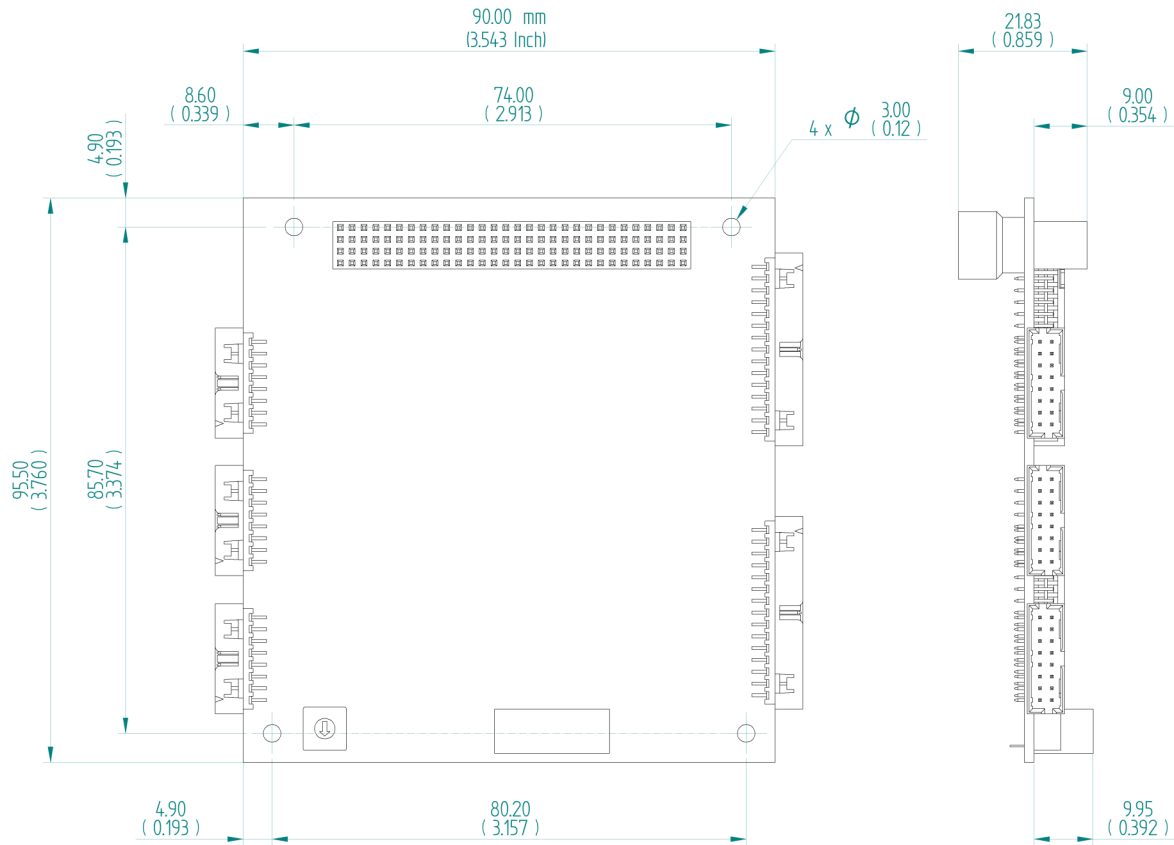
Redwave Labs Ltd S320 DAQ provides all necessary functions for fast high precision measurement and control: 16 bit Analog Input channels (2 SE or 1 DI, 8 ranges), 1.2 MS/s; Programmable Gain Amplifier (PGA) from 1 to 128; 16 bit Analog Output, 1.2 MS/s max update rate (2 channels, 4 ranges); 16 DIO with high output capacity (20 mA per channel); DSP (TI DM6437 4800 MIPS) and user space of 112kB of memory with real time averaging and data processing; on board temperature and high precision voltage references.



Specification

Features	S320 DAQ for high precision fast measurement and control, Industrial Automation, Precision Instruments, OEM applications	
Analog Input	Resolution	16 bit
	Speed	Up to 1.2 MS/s shared between channels, software selectable
	Number of channels	2 Single Input (SE) or 1 Differential (DI)
	Range	-10 to +10 V;
	PGA	Programmable Gain Amplifier in binary steps 1 - 128 V/V
	Memory	8 kS per channel
	Real time calculation	On board real time averaging up to 65536 waveforms
Analog Output	Resolution	16 bit
	Speed	1.2 MS/s, settling time 500 ns
	Number of channels	2
	Range	-10 to +10V; -5 to +5V; 0 to +10V; 0 to +5V;
	Memory	8 kS per channel
Triggering	Internal, Software, External, Pre and Post mode	
DIO	Number of channels	16
	Current	-16/24 mA per channel. Proper power supply should be selected if all channels are used at max capacity
	Input / output	8 input, 8 output
	Memory	8 kS per channel
	Level	+5 V
Bus	PCI	PC-104 form factor, 33 MHz 32 bit
	Voltage	Universal 3.3 or 5 V
DSP	DM6437 (TI)	4800 MIPS and 112kB on chip if real time calculation required
OS	Linux	Linux API documentation. Extensive example program provided covering all functions Windows driver can developed if requested.
Power	Single +5 power supply, 3 W typical	
Calibration	2.5 V and 5.0 V independent high precision reference voltage on board with 5 ppm/C drift max, (3 ppm/C typical)	
Connectors	SMB for Analog and 2 mm DIL headers Digital (30 pin)	
Dimensions (WxHxD)	90 x 96 x 12 mm (PC-104)	
Weight	100 g	
Temperature	Storage -55 to 100 C; Operational -20 to 85 C	

Mechanical Information



Parameter	Value	Unit
Length	3.54 (90)	Inch (mm)
Width	3.76 (95.5)	Inch (mm)
Height	0.85 (21.8)	Inch (mm)
Weight	100	gram