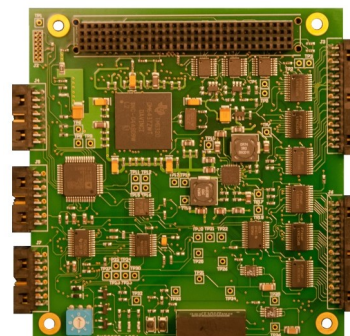


### Introduction

S310 DAQ PC-104 (PCI) 24 bit Analog Input (16SE/8DI), 16 bit Analog Output (8), 48 DIO

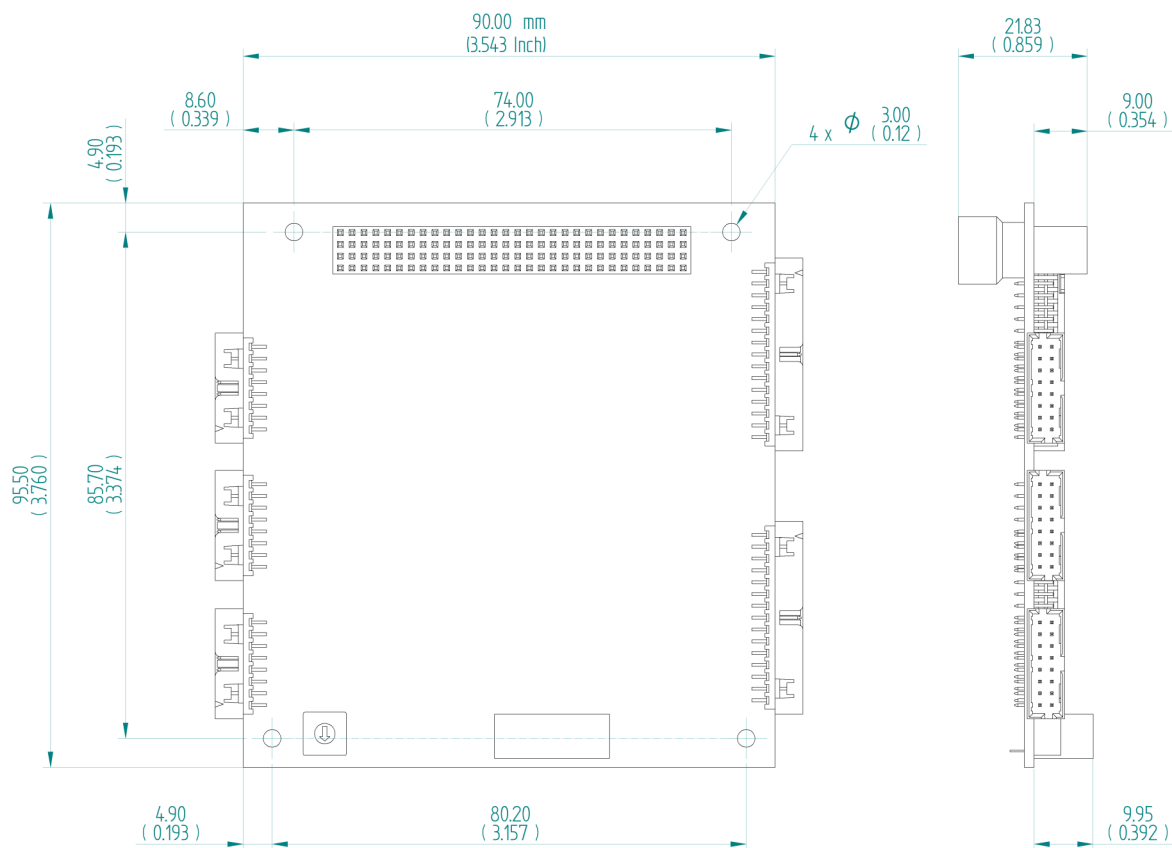
Redwave Labs Ltd S310 DAQ provides all necessary functions for high precision measurement and control: 24 bit Analog Input channels (16 SE or 8 DI, -10V to +10V), 1.12 kS/s; Programmable Gain Amplifier (PGA) from 0.125 to 128; 16 bit Analog Output, 1.12kHz max update rate (8 channels, -10V to +10V and -5V to +5V); 48 DIO with high output capacity (20 mA per channel); DSP (TI DM6437 4800 MIPS) and user space of 64kB of memory; on board temperature and high precision voltage references.



### Specification

Features	S310 DAQ for high precision measurement and control, Industrial Automation, Precision Instruments, OEM applications	
Analog Input	Resolution	24 bit
	Speed	1.12 kS/s shared between channels
	Number of channels	16 Single Ended (SE) or 8 Differential (DI)
	Range	-10 to +10 V;
	PGA	Programmable Gain Amplifier in binary steps from 0.125 up to 128 V/V
Analog Output	Resolution	16 bit
	Speed	1.2 MS/s, settling time 500 ns
	Number of channels	8
	Range	-10 to +10V; -5 to +5V; configurable in banks of 4
Triggering	Software, Circular buffer	
DIO	Number of channels	48
	Current	-16/24 mA per channel. Proper power supply should be selected if all channels are used at max capacity
	Input / output	Any combination of banks of 8 (6 banks of 8). All pins individually controlled.
	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 240kB 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	Standard 2 mm DIL headers for Analog (16 pin) and 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