



SA
instrumentation

SAIL DAQ Device

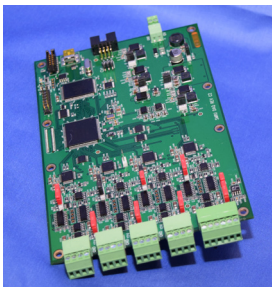
High Performance Data Acquisition Card



The same DAQ card as used in our Decimus® product for Passive Acoustic Monitoring (PAM) processes, our SAIL DAQ card is now available as a stand alone device suitable for integration or development purposes.

Compact and easy to integrate into systems a single card is capable of sampling up to four analogue channels simultaneously at up to 1MHz per channel, outputting the Data over a USB 2.0 connection.

Multiple cards may be stacked (connected vertically) together to provide up to 16 channels (12 channels max in the cased versions) ALL sampling simultaneously and synchronised through a card synchronisation connector.



Input/output

- One input using pluggable screw terminal connectors providing 12vDC power in
- Four inputs Chan 0, 1, 2, 3A and Channel 3B using pluggable screw terminal connectors each providing:-
 - » +12v DC Out, Signal + in, Signal – in, 0v/Ground.
 - » The last Input Channel 3B is available with some user configurability.
 - » One Line Out on a single 8pin right angle box header 0.1" pitch. The audio output of each connected input channel is available here. On the Cased version these are presented as 4 to 12 x 3.5mm Audio out jack socket and are suitable for driving the Line inputs of a sound card or headphone amplifier.
 - » One Mini USB 2.0 Data connector, for connection to a PC or other OEM equipment

Applications

Analogue Audio Data collection using:-

- HYDROPHONES, MICROPHONES, GEOPHONES etc. with or without pre-amplifiers
- High Volume Data Analysis
- Marine environmental Noise measurement/recording and analysis including Marine Mammal vocalizations
- Terrestrial noise and sounds e.g. bats, structural stress and civil construction work
- Ideal for single or multi-channel applications in research, industrial & security applications

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Technical Specifications

Parameter	Description	Min	Typical	Max	Unit
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Operating systems

OS Support	Software drivers-	Windows7			
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Environmental

Operational Temp	-	-10	-	+60	°C
DC Supply	-	11.8*	12	20	V
Average Power	-	1	1.5	3	W

Technical

Channels	Sampling channels	1	-	4	-
Sampling rate	Channel sampling rate	62.5	250/500	1000	kHz
Bit depth	Channel data word width	-	16	-	bits
Anti-aliasing**	Single pole LP	-	200	-	kHz
Channel Gain	Applied per channel, SW selectable	-	0/6/12/18/24/30	-	dB
Channel filters	Channel signal filters (2 pole), SW selectable	-	Butterworth HP:10/100/2k/20k	-	Hz

*Electrical noise is introduced into the system if the input voltage drops below 11.5V

**Note each channel is oversampled at a x16 rate allowing for a single pole anti alias filter, with additional filtering inside the ADC



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