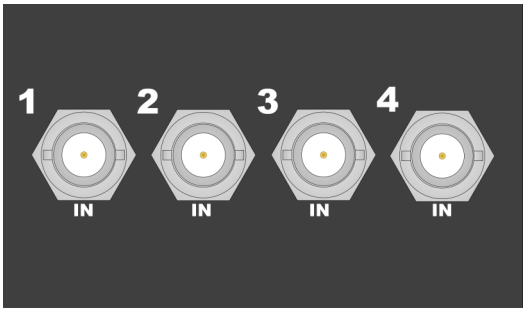
DATS Measurement Card

8X02 ADC + Tacho, IEPE, Direct, TEDS

Key Features

- **4 analog channels and 1 tacho input**
- **DC, AC and IEPE inputs**
- **400k samples/second/channel (16 bits)**
- **Tacho input sampled at up to 800k samples/second/channel**
- **TEDS with connection detection**



The **8X02** is a flexible general purpose acquisition card, with built-in signal conditioning for almost any type of transducer. It has the capability of high sample rates and synchronous parallel sampling with an additional dedicated tachometer input. It also offers a choice of **AC or DC coupling** to direct voltage inputs and support for **IEPE** transducers, including those with **TEDS**. Importantly, it has a large number of amplifier stages to maximise resolution and ensure that the measurement accuracy is suitable for all sensor inputs across the full ±10V range. This card offers the flexibility of capturing data in **24-bit or 16-bit resolution**.

All of the 8xxx modules are designed around Prosig's proprietary **ProSync** architecture. ProSync technology guarantees that all of the measurement channels in each module and all of the modules in the system synchronise their data precisely. ProSync works whether there is a single chassis or multiple interconnected Prosig systems. This ensures that you can have full confidence in your data and results.

This card can be fitted to:
DATS-tetrad (8602)
DATS-hyper12 (8502)
P8048 (8502)
P8012 (8402)

Description	4ch ADC + Tacho, IEPE, Direct, TEDS
Input channels	4
Output channels	n/a
16-bit sample rate *	400k
24-bit sample rate *	100k
Effective bandwidth	Up to 160kHz
Anti-aliasing attenuation	> 100dB
AC coupling high pass filter	20dB/dec -3dB at 0.3 or 1Hz
DC Input	✓
AC Input	✓
IEPE Input	✓
Charge Input	×
Programmable excitation	×
24-bit Dynamic range	105dB at 10Ks/s
24-bit Noise floor	-120dB at 10Ks/s
16-bit Dynamic range	92dB at 10Ks/s
16-bit Noise floor	-110dB at 10Ks/s
Non-linearity	< 1 bit
Accuracy	±0.1% FSD
DC Offset control	±50% FSD in 32768 steps
Tacho channels	1
Tacho input range	±28.5V
Supports TEDS	✓
Autozero	✓
Input range	±10mV to ±10V FSD
Output range	n/a
Gain Steps	1, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800, 1000
Input common mode range	±10V
Max input range	±10V (without attenuation)
Overvoltage protection	±24V
Prog. bridge completion	×
Connector	BNC
Max. Power Usage	5W

* All sample rates are specified in number of samples per second per channel

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