

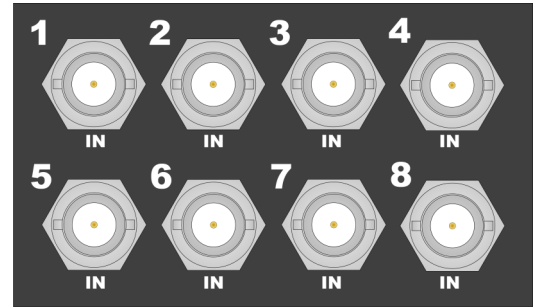
DATS Measurement Card

8X12 ADC + Tacho, IEPE, Direct, TEDS



Key Features

- **8 analog channels and 1 tacho input**
- **DC, AC and IEPE† inputs**
- **100k samples/second/channel (24 bits)**
- **Tacho input sampled at up to 800k samples/second/channel**
- **TEDS with connection detection**



This card is ideal for situations where higher sampling rates are not required, but high quality, repeatable, high resolution data captures are desired. The 8X12 provides twice the channel density of the P8X02. This allows for example a DATS-tetrad chassis to support a total of 32 analog channels with two tacho channels and the DATS-hyper12 can support 96 analog channels. A large number of amplifier stages maximises resolution and ensures that the measurement accuracy is suitable for all sensor inputs across the full $\pm 10V$ range. This card is used primarily in situations where high channel counts are required, and the native BNC connectors mean that untidy breakout cables or non-standard connectors are not required.

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 (8612)

DATS-hyper12 (8512)

P8048 (8512)

P8012 (8412)

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Description	8ch ADC + Tacho, IEPE, Direct, TEDS
Input channels	8
Output channels	n/a
16-bit sample rate *	n/a
24-bit sample rate *	100k
Effective bandwidth	Up to 40kHz
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	102dB at 10Ks/s
24-bit Noise floor	-120dB at 10Ks/s
16-bit Dynamic range	n/a
16-bit Noise floor	n/a
Non-linearity	< 1 bit
Accuracy	$\pm 0.1\%$ FSD
DC Offset control	\pm FSD in 32768 steps
Tacho channels	1
Tacho input range	$\pm 28.5V$
Supports TEDS	✓
Autozero	✓
Input range	$\pm 10mV$ to $\pm 10V$ FSD
Output range	n/a
Gain Steps	1, 10, 100, 1000
Input common mode range	$\pm 10V$
Max input range	$\pm 10V$ (without attenuation)
Overvoltage protection	$\pm 24V$
Prog. bridge completion	✗
Connector	BNC
Power usage (worst case)	10W

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

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