

DATS Measurement Card

8X14 ADC + Tacho, IEPE, Direct, Bridge, 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
- Programmable excitation
- Programmable 1/4, 1/2 & full bridge input
- Input nulling & excitation sensing
- TEDS with connection detection

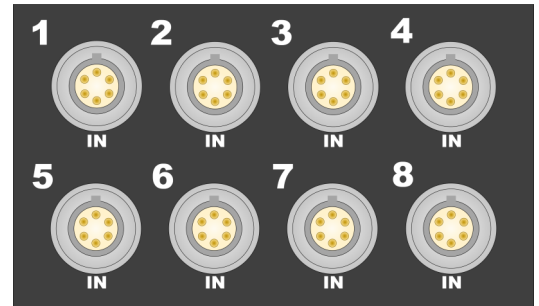
This card has the main features of the 8X12 and includes bridge completion and transducer excitation. Each channel provides bridge completion configurations of 1/4, 1/2 and full bridge, internal calibration shunt resistors and selectable bridge resistance of 120, 350 or 1000Ω. This card allows a DATS-tetrad chassis to support up to 32 analog channels and two tacho channels. Each channel also provides program selectable supply voltage of 5V & 10V for transducer excitation.

This card can be fitted to:

DATS-tetrad (8614)

DATS-hyper12 (8514)

P8012 (8414)



Description	8ch ADC + Tacho, IEPE, Direct, Bridge, TEDS
Input channels	8
Output channels	n/a
16-bit sample rate *	n/a
24-bit sample rate *	100k
Effective bandwidth	0.4 x sample rate
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	±0.1% FSD
DC Offset control	±FSD in 32768 steps
Tacho channels	1
Tacho input range	±28V
Supports TEDS	✓
Autozero	✓
Input range	±10mV to ±10V FSD
Output range	n/a
Gain Steps	4
Input common mode range	±10V
Absolute max input range	±24V
Prog. bridge completion	✓
Connector	Lemo
Power usage (worst case)	12W

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

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