NOLAM SERVICES & INDUSTRIES

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NES-MPCIE-AD8

8 CHANNEL 16-BIT,200KSPS

HIGHLIGHTS

- 8 Channels 16-bit A/D converter Simultaneously Sampled
- Fast throughput rate: 200 KSPS for all 8 channels
- 8 Channels SE or 4 PSEUDO Differentials
- Single-ended or 4 differential channels
- True bipolar analog input ranges: ±10 V, ±5 V, selection applies to all Channels
- Analog Input Clamp Protection
- 1MΩ Analog Input Impedance
- Programmable 2nd Order Anti-alias Analog Filter
- Over-sampling capability with digital filter
- 8Kx16 SRAM

RELATED PRODUCT

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OVERVIEW

The NES-mPCIe-AD8 Simultaneously Sampled A/D offers a mix of up to 8 single ended or 4 differential analog input channels. All channel features programmable gain 1 or 2 and can program to handle analog input with a single-ended or differential configuration. The acquisition can be started by the host or by an on-board sequencer that uses a channel list to specify which channel to acquire. A local 8Kx16 but dual ported SRAM stores the acquisition data. Memory pointers can be selected t limit the number of scans gathered, as well as the control of interrupt generation. The 16-bit A/D converters can provide a global acquisition and conversion time of ≤5µsec per sample per channel. The board offers a programmable digital filter: ±5 V range, the −3 dB frequency is typically 15 kHz. In the ±10 V range, the −3 dB frequency is typically 23 kHz.

A/D Device Specifications:

- 16-bit, charge redistribution SAR, A/D converter
- Hardware factory-calibrated and tested to ensure SNR and THD are within specifications
- Gain, offset, and linearity are also factory calibrated
- Throughput
- 200 KSPS
- INL: ±0.5 LSB Max with no missing code
- 95.5 dB SNR, −107 dB THD
- Analog input voltage ranges
- Bipolar: ±10 V, ±5 V
- 7 kV ESD rating on analog input channels
- No pipeline delay

Mechanical: Environmental:

- Front panel I/O
- Vibration – 0.5G, 20-2000 Hz rand
- Shock – 20G, 11 msec, ½ sine
- Weight – tbd
- MTBF – >250,000 hours

Operating Environment

- Operating temperature -40 ºC to +85 ºC
- Airflow requirement – 5 CFM
- Humidity – 5 to 90% (non-cond)
- Altitude – 0 to 10,000 feet

Order Part Number:

- NES-mPCIe-AD8 8 Channel 16-bit 200KSPS