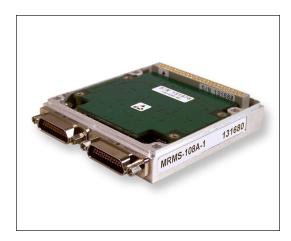## 8-Channel Differential True RMS Converter Signal Conditioning Module – AC or DC Coupling, Programmable Gain, update rate and crest factor

Applications

- Flight Test Instrumentation
- Factory Automation & Process Control
- Acceleration/Vibration monitoring
- Research Measurements and Experiments

Features

- 8-Channels per Module
- DSP based True RMS measurement
- Programmable Channel Gain
- Programmable Crest Factor
- Programmable Sample Update Rate
- Programmable position of status bits in RMS data word
- Channel output data include:
  - True RMS data value (up to 16-bit resolution)
  - Raw data input (up to 14-bit resolution)
  - Peak maximum data value (up to 14-bit resolution)
  - Peak minimum data value (up to 14-bit resolution)
- AC and DC input coupling selected by connector wiring
- Zero Calibration
- ZIN >5MΩ (power on), >2 MΩ (power off)
- ± 0.5% System Accuracy
- Frequency response to 1000 Hz for stated accuracy
- Automatic parasitic offset correction on power up and ZCAL. This feature can be disabled.
- ±35VDC Overvoltage Protection
- Windows 95/98/NT/2000/XP Software Included

Description

The MRMS-108A is an 8-channel differential RMS to digital converter module for use in TTC's MEDAU/MCDAU/MWDAU-2000 products.. The module can accept voltages from various system sources including sensors, transducers and other pre-conditioned analog voltages. It digitizes the input voltage, performs the RMS calculation and encodes these signals into data words for transmission in the system PCM output format. Each channel has AC or DC input coupling, software programmable gain in the range of 1 to 10, six software programmable sample rates and four software programmable crest factor settings. There are also two status bits that alert the user to a math overflow in the crest factor calculation, an over-range or under-range condition on the ADC.

Additionally, the MRMS-108A module can output the maximum and minimum values recorded during each measurement cycle as well as RAW data from the ADC into the PCM stream. Raw data and maximum and minimum values are digitized at 14-bit resolution. RMS data provides 16-bit resolution.

CAIS Compatible

DEKRA Certified Accredited by ANAB

Management System AS9100C ISO 9001:2008

Revision 05/12/2015

MRMS-108A Datasheet

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