

6-Channel Variable Frequency Periodic Voltage Monitor Signal Conditioning Module



Applications

- Flight test instrumentation
- Aircraft power generation systems
- Research measurements and experiments

Features

- 6-channel, variable frequency periodic voltage monitoring
- Wide input frequency range, 32Hz to 1000Hz
- Programmable selection of periodic voltage measurements including:
 - For each channel: Raw, Peak positive, Peak negative, Peak to peak, Average, RMS and Average DC Level voltages; Period; Frequency and Total Harmonic Distortion (THD)
 - Additional channel-to-channel measurements: Phase shift between channels 1 and 2, channels 1 and 3, channels 4 and 5, and channels 4 and 6
- Fixed analog anti-aliasing filter, 7.5 kHz frequency cutoff with 5-pole Butterworth response
- Software programmable channel gains
- Software programmable AC and DC input coupling
- Zero calibration and DC voltage substitution calibration
- Accepts sinusoidal input voltages up to $206 V_{RMS}$ ($\pm 291 V_{PEAK}$)
- $\pm 0.5\%$ system accuracy
- Automatic parasitic offset correction on power up and ZCAL. This feature can be disabled
- $\pm 400 V_{DC}$ input overvoltage protection
- Programmed with included Microsoft Windows application software

Description

The MVMC-106A is a 6-channel, variable frequency, periodic voltage monitor signal-conditioning module for use in TTC's MEDAU/MCDAU/MWDAU-20xx products. The module provides capability for monitoring up to six (6) variable frequency (32 Hz to 1000 Hz) periodic voltage inputs of up to $206 V_{RMS}$. Each channel provides calibration, programmable gain, and fixed presample filtering. The conditioned analog signals are digitized at up to 14-bit resolution and used as the basis for a series of DSP-based voltage and time measurements that are available for transmission in the system PCM output format. Most measurements are updated at a rate of 15 to 20 updates per second, depending on the input signal frequency.

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MVMC-106A Datasheet

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Management
 System
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 ISO 9001:2008