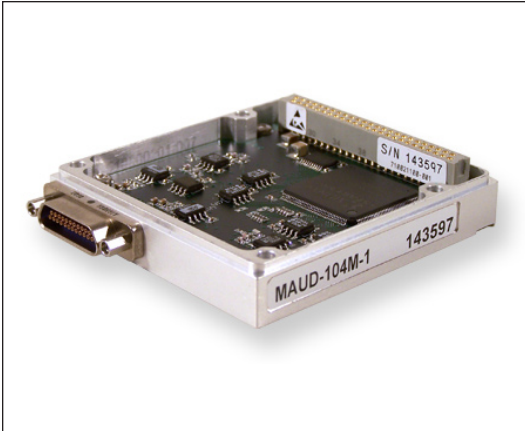


## Miniature Audio Input Module



### Applications

- Data Analysis
- Voice Encoding
- Flight Test Instrumentation

### Features

- Four Channel Audio Input Module
  - Hot Mic applications
  - Software programmable input range
  - Band-pass filtering
- Flexible Encoding
  - Digitization of analog signal
  - Companding, ALaw or uLaw (available at 16 BPW only)
- IRIG B AC Time Input
  - Channel 1 is optimized for IRIG B AC time input
  - Digitize and transmit IRIG time to aid in post processing of data

### Description

The MAUD-104M is a 4-channel voice encoder module for use in TTC's MEDAU-2000, MCDAU-2000 and MARM-2000 series products. The module accepts voltages from amplified microphones and digitizes the signals into data words for transmission in the system PCM output format. Additionally, when operating at 16 BPW (Bits per Word) the unit can be programmed to encode the data via companding. There are options for both A-Law and u-Law. The valid sample rate is programmable (via format placement) in the range of 8 KSPS (Kilo Samples per Second) to 32 KSPS. The MAUD-104M offers a programmable input range from 40 Vp-p to 1.25 Vp-p.

When used in the MARM-2000 system, the Interleaver Setup Software (ISS) will generate the sampling format and, if programmed to one of the companding modes, will double the format sample rate and pack two bytes of data into a single 16-bit word. The same function is available for the MEDAU/MCDAU system running at 16 BPW. Running the channel sample rate at 4 KSPS at 16 BPW with companding will result in a channel sample rate of 8 KSPS and two 8-bit samples will be output in each 16-bit word. Audio data output from the MARM-2000 will be de-leaved and reconstructed using the AUD-104M as part of the RMOR-2000 system.

The module employs a band-pass filter that is -3 dB at 300 Hz and 3,000 Hz on channels 2 through 4. The high pass filter on channel 1 is a single pole filter set for -3 dB at 3.9 Hz making it suitable for encoding AC modulated, IRIG-B time.

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### MAUD-104M Datasheet

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