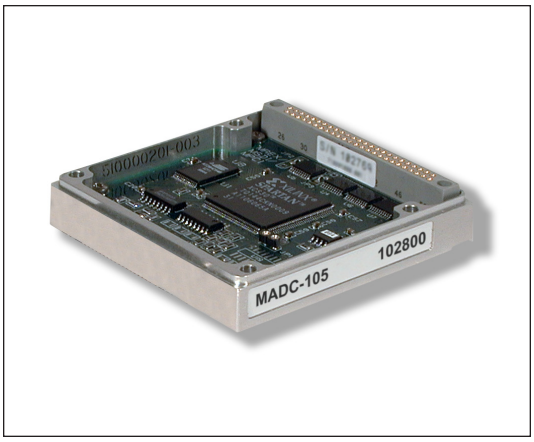
TELETRONICS
A Curtiss-Wright Company

MADC-105 Datasheet

Miniature ADC Module



Applications

- Distributed Data Acquisition Systems
- Wide Band Signal Conditioning

Features

- Plug-in Analog to Digital Converter Module for products containing an MWCI-105
- One MADC-105 supports the stack in which it is installed
- Provides a common ADC capability
  - Digitizes analog data on an internal “system PAM bus”
- Provides programmable second-stage gain capability
- Provides programmable second-stage offset capability
- Intended for use in the following applications
  - Used with any analog module that does not have an on-module ADC
  - Used with any “digital” signal conditioning module (i.e. those that have an on-module ADC), but still rely on the internal “system PAM bus” for ADC (e.g. MGRC-102/202)
- High Performance
  - 12-bit resolution
  - 416.7 KSPS maximum conversion rate
- Fully programmable using TTCWare™ software application

Description

The MADC-105 supports “wideband” stand-alone operation of stacks at up to 5 Mbps (MWCI-105). The module provides a common ADC for the host stack, providing 12 bits Analog-to-Digital-Conversion (ADC), programmable second-stage gain (in addition to first-stage gain applied by the individual conditioning modules), and programmable offset on a channel-by-channel basis. The module also provides ADC for preconditioned analog signals that come from some kinds of signal conditioners (e.g. the MGRC-102/202 provide an RMS value of the output of the module to the MADC-105 module for 12-bit ADC conversion). The MADC-105 module formats the digitized result for placement in the serial PCM output stream of the host encoder. In wideband applications, the encoded results from the MADC-105 are transferred to the Wideband Unit’s overhead module (MWCI-105) for transfer to the CAIS Bus, or for transfer to the unit’s PCM output stream(s).

CAIS Compatible

DEKRA Certified — Management System AS9100C ISO 9001:2008

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