ACROAMATICS
TELEMETRY SYSTEMS
A DELTA INFORMATION SYSTEMS COMPANY

Model 682M

Analog Processor Mezzanine

FEATURES

Two models allow selection of only as much capability as required for your application.

Model 682M-8 provides:

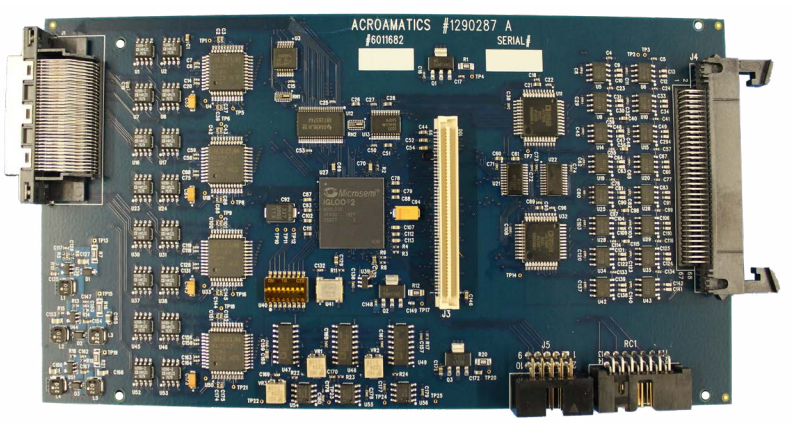
- 16 discrete outputs
- 8 12-bit D-to-A outputs in software selectable ranges of +/- 5V, +/- 10V, and +/- 20V

Model 682M-32 provides:

- 16 discrete outputs
- 32 12-bit D-to-A outputs in software selectable ranges of +/- 5V, +/- 10V, and +/- 20V
- 16 12-bit A-to-D inputs
- Supports the full range of Acroamatics multi-stream real-time range telemetry data EU conversion and processing data output formats!

*Companion plug-in mezzanine to Acroamatics **Model 1635AP** PCI-bus Data Distribution and Programmable Data Stream Processor*

GENERAL DESCRIPTION



Model 682M is a mezzanine module for the PCIe-bus Model 1635AP Programmable Data Stream Processor telemetry system EU processing and data distribution card.

Two configurations of Model 682M are available.

Model 682M-8 provides a total of 8 channels of 12-bit D-to-A output.

Model 682M-32 provides a total of 32 channels of 12-bit D-to-A output plus 16 channels of 12-bit A-to-D input with a 400 KHz sample rate.

Model 1635AP cards, when equipped with a Model 682M-8 mezzanine, require only one standard PCI bus slot and chassis I/O opening. When equipped with a Model 682M-32 mezzanine an additional chassis card slot I/O opening (two total) is required to accommodate DAC, Discrete, and A-to-D signal I/O connectors.

The Model 682M is “plug-n-play” compatible with existing Acroamatics telemetry data system DAC mezzanine card and project installations, supporting those interested in updates to existing systems or mixing of old and new generation Acroamatics TDP products.

All Acroamatics documentation is supplied on a CD-Rom.

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TELEMETRY SYSTEMS

MODEL 682M MEZZANINE CARD DAC & ADC CONVERTERS SPECIFICATIONS

FUNCTION	CHARACTERISTICS
Input setup bus & connectors to the ABUS	Interfaces to Acroamatics 1635AP PDSP over a mezzanine connector
ANALOG OUTPUTS	**OUTPUT LOADED WITH 10K OHM AND 50PF IN PARALLEL**
Outputs	32 Outputs
Resolution	12 bits of resolution, 2's complement binary input
Accuracy	± 10 LSB counts (± .2%)
Linearity	± 1 LSB count
Stability	10ppm / °C
Settling Time	2.5 µsec to within ± 1 LSB
Slew rate	3 Volts / µsec
Output current	1 mA maximum @±5V
Output voltage	Software selectable voltage ranges of ±5V, ±10V and ±20V
DISCRETE OUTPUTS	
Outputs	16 discrete output lines – TTL compatible
Addressing mode	The discrete outputs may be addressed as two 16-bit registers, four 8-bit registers, or 32 1-bit registers. When selected as 16-bit registers, you can use strobe and acknowledge signals to synchronize message transfers
Output current	-32mA @2.4V, and +48mA @0.40V
ANALOG INPUTS	
Differential	16 inputs with individual instrumentation amplifiers
Impedance	100K ohms minimum
Input Amplitude	±5 Volts full scale
OPERATION	
Sampling rate	32 to 400K samples per second
Resolution	12 bits
Data format	Offset binary or 2's complement, right or left justified
Nonlinearity	± 1 LSB
Accuracy	± 1 LSB
REQUIREMENTS	
Power	+5VDC @ 500mA +12VDC @ 250mA -12VDC @ 100mA
Temperature	Operating: 0 to +40°C, Non-operating: -40 to +86°C
Relative humidity	Up to 90% non-condensing
Air Flow	30 Linear FPM
Shock	Operating: 6G Nonoperating: 50G
Vibration	Operating: .5G, 5 to 2000Hz, Nonoperating: 1.2G, 5 to 500Hz

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