

9431 ANALOG OUTPUT MODULE

SPECIFICATIONS

Number of Analog Output Channels: 32

Noise floor: at least -128dBv per $\sqrt{\text{Hz}}$ over 85 kHz bandwidth

Channel Resolution: 16 bits

Resampling Rate: Up to 250ksa/s. May be supplied on board or from external source.

Allocation per channel is configured in software.

Channel data memory: 64Kbyte onboard FIFO.

Output Ranges: $\pm 10\text{V}$, $\pm 5\text{V}$, $0-10\text{V}$, $0-5\text{V}$, $\pm 2.5\text{V}$

Digital Data Format: 16 bit 2's complement or Offset Binary

Settling time to 1/2 LSB for 20V step: 4 μsec

Output Type: SE or Differential

VME Specifications

Meets VME Specifications Revision C.1 IEEE Std. 1014-1987

A16:D32 BLT Slave

Address Modifier Code 29 HEX

Short I/O space covering 256 consecutive byte locations, base address configurable within 64K short I/O space.

Board size: 6U

Power Requirements

+5 Volts @ 1000mA

± 12 Volts @ 500ma

Environmental

Operating Temperature: -10 to 50°C or -25 to 75°C

Storage Temperature: -25 to 125 °C

Shock: 10g, 11ms on all axis

The 9431 Analog Output Module offers the following features:

- The user may program the module so that the data to the D/A converters comes from either the VMEbus or the FPDP interface.
- A Retransmit Mode allows the user to generate continuous waveforms with no processor overhead.
- A software controlled power down mode is offered to disable the DC-DC converter. This reduces power consumption by 90%. The user enters the power down mode by writing a logic “1” to the appropriate bit in the control register.
- An onboard A/D converter allows the user to enter a diagnostic mode. The diagnostic cycle is performed after every system reset.
- When used with 9531 FPDP RAM Module, unit becomes a 32 channel arbitrary waveform generator.
- Up to 8 boards may be synchronized and share the same FPDP interface. The user simply writes the ID byte and Channel byte to each board across the VMEbus. To the FPDP interface, multiple boards appear as a single unit.

If a custom external data interface is required, we can typically accomplish this for an NRE charge of less than \$4000 by simply reprogramming the external interface chip.