

XVME-531

XVME-531 16-Channel 12-Bit VMEbus Analog Output Module

Product identification

Xycom XVME-531 is a double-high VMEbus 12-bit analog output module with sixteen independently configurable channels; /1 and /2 hardware variants determine voltage-only or isolated voltage/current operation.

Parameter	Verified value
Manufacturer	Xycom
Model	XVME-531
Product Family	XVME Series
Product Type	VMEbus Analog Output Module

Technical specifications

Parameter	Verified value
Form factor	Double-high VMEbus module
Output channels	16 independent
Resolution	12 bits
Output update	Simultaneous multichannel support
XVME-531/1 outputs	0-10 V, +/-5 V or +/-10 V
XVME-531/2 outputs	Voltage ranges plus 4-20 mA
XVME-531/2 isolation	500 V optical isolation
Voltage overall error	+/-0.5 LSB maximum after trim
Current overall error	+/-0.66 LSB, +/-0.016%
Current compliance voltage	10.5 V at 20 mA
Current load range	50 to 525 ohms
Current settling time	80 microseconds to 1/2 LSB
XVME-531/1 conversion start	400 ns typical
XVME-531/2 conversion start	4.7 microseconds typical
Voltage gain temperature coefficient	20 ppm/C maximum
Current gain temperature coefficient	50 ppm/C maximum
Current offset temperature coefficient	30 ppm/C maximum
XVME-531/1 supply current	1.8 A typical at full-scale outputs
XVME-531/2 supply current	3.2 A typical at full-scale 4-20 mA mode

Product overview

XVME-531 is a double-high VMEbus digital-to-analog output module in the Xycom XVME family. It provides sixteen independently programmed 12-bit channels and supports simultaneous multichannel output updates.

The family contains two hardware variants: XVME-531/1 supplies unipolar or bipolar voltage outputs, while XVME-531/2 adds isolated voltage or 4-20 mA current operation. Gain and offset adjustments are provided per channel for calibration within the documented error limits.

The module is used in legacy test, process-control and machine-automation systems that require deterministic analog commands from a VME host. The exact /1 or /2 suffix, output wiring, range jumpers, I/O address and calibration records must be confirmed before replacement.

Applications

- Generates multichannel analog commands for legacy process-control and test systems.
- Drives actuator references, laboratory loads or machine setpoints from a VME controller.
- Supports current-loop control where the isolated XVME-531/2 hardware is installed.

Output Configuration

- Each channel is independently selected for the ranges supported by the installed /1 or /2 hardware.
- The /1 version provides voltage output only, while /2 adds 4-20 mA current operation.
- Simultaneous output capability coordinates updates across multiple analog channels.

VMEbus Integration

- The double-high board occupies a VMEbus slot and uses host-programmed register access.
- Base address and bus settings must be matched to the existing chassis configuration.
- Power budgeting must account for the higher full-scale demand of the /2 current-output version.

Calibration & Accuracy

- Per-channel gain and offset adjustments are used to trim the selected output range.
- Voltage operation is specified to a maximum overall error of one-half LSB after adjustment.
- The /2 current output is specified to two-thirds LSB overall error with a 50 to 525 ohm load range.

High-risk technical note

XVME-531 is a family identity; confirm the /1 voltage-only or /2 isolated voltage/current suffix before wiring, because their outputs and power demand differ.

Request a quotation
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Exact model
XVME-531
XVME Series



Manufacturer source

https://www.artisanng.com/info/Xycom_XVME531_Manual.pdf

Source technical meaning is unchanged. This web edition is organized for exact-model identification and quotation support.