



8-channel Voltage Output SCP

Overview

The VXI Technology VT1531A 8-channel Voltage Output SCP provides eight channels of non-isolated voltage source outputs. Each channel can source $\pm 16\text{ V}$ at up to 5 mA output current. The output voltage resolution is 16 bits (500 μV). Each output is current-limited to protect it from short circuits.

Use the VT1531A with the following VXI modules:

Model	Description
VT1415A	Algorithmic Closed Loop Controller
VT1419A	Multifunction Measurement and Control Module
VT1422A	Remote Channel Multifunction DAC

Specifications

Maximum Input Voltage

(non-operating externally applied voltage without damage applied to any output Hi terminal)

Damage level: $>\pm 42\text{ V}$ peak

Noise

20 Hz to 250 kHz: $<1.2\text{ mV rms}$

Voltage Output

Range: $\pm 16\text{ V}$ (Full-scale at up to 5 mA)

Resolution: 16 bits = 500 μV (monotonic to 16 bits)

Accuracy: $(\pm 0.02\%$ of expected output) $\pm(3.6\text{ mV}$ offset error)

Temperature coefficient

Accuracy: $\pm 0.004\%/^{\circ}\text{C}$
Offset error: $0.2\text{ mV}/^{\circ}\text{C}$

Settling time: 300 μs

Features

Use with VT1415A/VT1419A/VT1422A

8-channel Non-isolated Voltage Source

Current Limited to Protect from Short Circuits

Source $\pm 16\text{ V}$ at up to 5 mA Output Current

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Output impedance: 50 Ω , 15 Ω through
Common Mode Choke

Power Required

±5 V:
Typical: 11 mA
Maximum: 15 mA

±24 V:
0 mA output typical: 60 mA
0 mA output maximum: 75 mA
5 mA output typical: 100 mA
5 mA output maximum: 115 mA

Current Requirements (Amps)

5 V max	24 V max	-24 V max
0.015	0.075	0.075

Ordering Information

VT1531A

VT1531A

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Output SCP

Acquisition