

# VX4620 Dual High Speed Power Supply



## TECHNICAL DATA SHEET

### Features

PXI

VXI

LAN

cPCI

PXIe

GPIB

USB

RS232  
485

external  
PCIe

- Dual high speed power supply with a low noise linear 200 V<sub>pp</sub> /1 A output stage
- Programmable bipolar voltage and positive/negative current limits
- Autosensing
- Stable control loop even on long load lines
- Programmable slew rate
- Programmable over GPIB, USB or RS232
- Specially designed for automatic test equipment and high throughput testing
- Fast rise and fall times due to integrated sink capability

## Product Information

### Fully isolated outputs to avoid ground loops

Each VX4620 device has two outputs which are galvanically isolated. The regulation loops for programmable output voltage, positive output current and negative output current are independent. This fact allows different positive and negative current limits.

### Autosensing protects devices under test

An autosensing feature is integrated as a built-in security to protect Devices Under Test.

### Autosensing

Sense output terminals can be left open; sensing on force output terminals is guaranteed automatically.

### Remote sensing

Up to 3 V can be dropped in each load lead. The drop in the load leads subtracts from the voltage available for the load.

### Four-quadrant source and sink

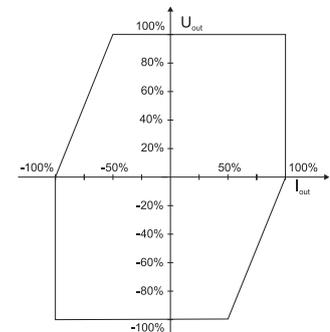
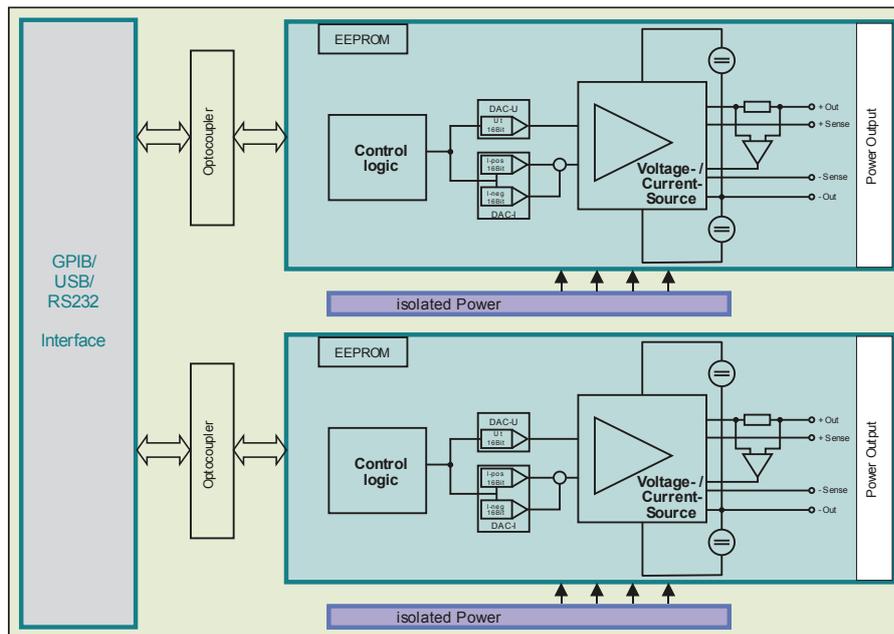
The programmable output voltage can be programmed up to  $\pm 100$  V at an output current of up to 1 A. The maximum power dissipation of 80 W per channel may not be exceeded. The VX4620 supports current source and sink. This fact allows very fast fall times even with high capacity of the Devices Under Test.

### Stable control loop

The integrated control loop is able to handle inductive loads. This results in a stable output control even with long lines from source to load.

### Output programming response time

The fastest rise and fall time (1%... 99% and 99%... 1%) of the output voltage is less than 1 ms. The output voltage change settles within 0.1% of the full scale in less than 5 ms.



Voltage Control Unit	Specification	Comment
<b>Resolution</b>	16 Bit (5 mV)	
<b>Output ratings</b>	$\pm 100\text{ V} / \pm 1\text{ A}_{\text{max}}$	Programmable range
<b>DC accuracy</b>		
Gain error	$\pm 0.05\%$ of full scale	
Offset error	$\pm 0.05\%$ of full range	
<b>Line + Load regulation</b>	$\pm 5\text{ mV} + 5\text{ mV}$	
<b>Slew rate</b>		
Range	50 ... 50,000 V/s	Programmable range
Accuracy	$\pm 5\%$	Within 10% ... 90% of full scale

Current Control Unit	Specification for each Channel	Comment
<b>Range 1</b>		
Positive current	0 mA ... +100 mA	$ I_{\text{limit, pos}}  -  I_{\text{limit, neg}}  > 5\text{ mA}$
Negative current	0 mA ... -100 mA	$ I_{\text{limit, pos}}  -  I_{\text{limit, neg}}  > 5\text{ mA}$
Resolution	16 Bit (2 $\mu\text{A}$ )	
Gain error	$\pm 0.05\%$ of value	
Offset error	$\pm 0.05\%$ of full scale	
<b>Range 2</b>		
Positive current	0.0 A ... +1.0 A	$ I_{\text{limit, pos}}  -  I_{\text{limit, neg}}  > 50\text{ mA}$
Negative current	0.0 A ... -1.0 A	$ I_{\text{limit, pos}}  -  I_{\text{limit, neg}}  > 50\text{ mA}$
Resolution	16 Bit (20 $\mu\text{A}$ )	
Gain error	$\pm 0.1\%$ of value	
Offset error	$\pm 0.1\%$ of full scale	

**Notes:** All product data are specified for an ambient temperature of  $23^\circ\text{C} \pm 5^\circ\text{C}$  (after 1 hour warm-up time).  
Product specification and description in this document are subject to change without notice.

# FOR YOUR NOTES

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