TECHNICAL DATA SHEET

VXI Instruments
the test solutions provider

# VX6626
# Quad System Power Supply




PXI
VXI
LAN
cPCI
PXIe
GPIB
USB
RS232 485
external PCIe

## Features

- CompactPCI quad system power supply, 20 V, 200 mA each channel
- 5nA High resolution current measurement
- Measurement function of all voltages and currents
- change of current measurement range without interruption of output supply
- Specially designed for testing battery powered modules or any kind of low power electronic
- Very fast rise and fall times for high testing speed
- Sense inputs for superior load control (4-wire)
- Autosensing to protect DUTs
- Digital calibration via system interface
- Output relay for each channel (sense and force line)

# Product Information

The VX6626 is a four-output programmable power supply with an integrated compactPCI interface.

The VX6626, 3U double slot compactPCI module, is designed for testing battery powered devices.

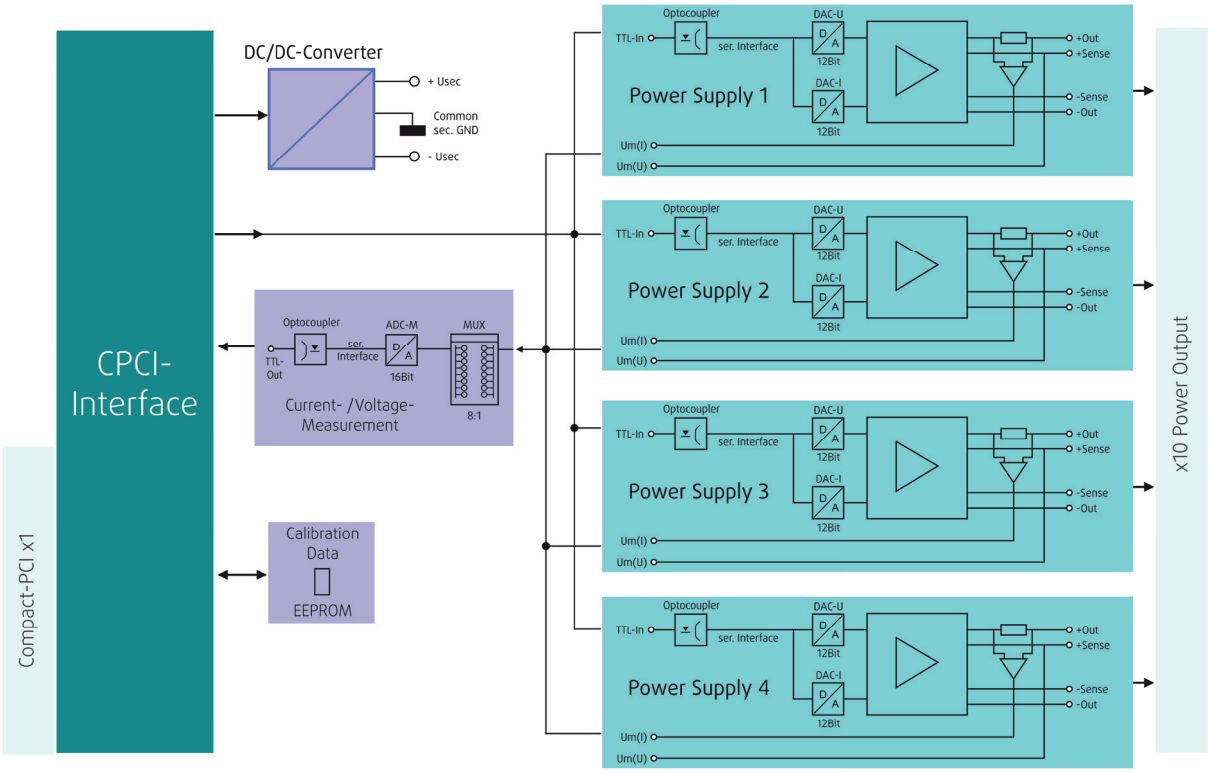
The maximum output voltage is 20 V at an current limit of up to 200 mA for each power supply output. The VX6626 has an integrated readback function for output voltage and current. The current measurement capability (µA-Range and nA resolution) allows testing of low power devices (e. g. battery powered).

For safety reasons the VX6626 supports the following built-in security features required in automatic testing:

- Autosensing. If the sense line is not connected the output is used as the sense point automatically.
- Broken sense line. The output voltage is reduced by the voltage drop across the load line automatically.
- Shorted sense line. The output voltage is limited to 3 V above programmed value.
- Output relay for each channel for safe disconnection of the DUT (Device Under Test)
- Overload protection in case of DUT damage or external short circuit

The instrument calibration is done digitally and fully automatical. The calibration data are stored in on-board EEPORM.

Current control can be switched of, while current measurement is still working. In this case, in 200µA and 200mA range, the channel can source up to 200mA and is limited by an integrated overload protection to ~250mA in case of short circuit or DUT damage. So, a DUT may be in sleep mode, while consuming very low currents in µA Range which can be measured. The device then can be powered up and the voltage will remain stable, also the current exceeds fullscale of the measurement range, as long as the current is below 250mA.



# General Specification

| General | Specification | Comment |
|---|---|---|
| **Module size** | 2 cPCI slots, 3U | |
| **Number of outputs** | 4 | Common ground, isolated against PE |
| **Module weight** | <0.5 kg | |
| **Front connector type** | 25pol. D-SUB female | |
| **Storage temperature range** | -25 ... 70°C | |
| **Operating temperature** | 0 ... 40°C | |
| **Operating altitude** | <2 000 m | |
| **Relative humidity** | Up to 85% at 35°C | |
| **Electrical safety** | According EN61010-1 | |
| **Isolation output to PE** | 250 V CAT I, Pollution Degree 2 | |

# Power Supply Output

| Power Supply Output 1 to 4 | Specification | Comment |
|---|---|---|
| **Output voltage** | | |
| Range | 0 ... 20 V | Programmable voltage range |
| Resolution | 12 Bit (5 mV) | |
| Accuracy | 0.5% +20 mV | ± (of programmed value + offset) |
| **Output current range 1** | | |
| Range | 0 ... 200 mA | Programmable current load |
| Resolution | 12 Bit (100 µA) | |
| Accuracy | 1% + 2 mA | ± (of programmed value + offset) |
| Current limit | 10 ... 250 mA | Programmable current limit |
| **Output current range 2** | | |
| Range | 0 ... 200 µA | Programmable current load |
| Resolution | 12 Bit (10 µA) | |
| Current limit | 200 µA | Fixed value for current limit |
| **Overload protection** | 250mA +/-10% | |

# Measurement Unit

| Measurement Unit 1 to 4 | Specification | Comment |
|---|---|---|
| **Voltage** | | |
| Range | 0 ... 20 V | |
| Resolution | 16 Bit (<250 µV) | |
| Accuracy | 0.2% + 5 mV | ± (of measured value + offset) |
| **Current range 1**[1] | | |
| Range | 0 ... 200 mA | |
| Resolution | 16 Bit (5 µA) | |
| Accuracy | 0.5% + 1 mA | ± (of measured value + offset) |
| **Current range 2**[1] | | |
| Range | 0 ... 200 µA | |
| Resolution | 16 Bit (5 nA) | |
| Accuracy | 1% + 3 µA | ± (of measured value + offset) |
| Current limit | 200 µA | Fixed value for current limit |

[1] Current measurement range is equal to current range of selected power supply.

**Notes:** All product data are specified for 24 months at an ambient temperature of 23°C ±5°C (after 1 hour warm-up time).
Product specification and description in this document are subject to change without notice.

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Revision Date: 2026-10-26