

# DIAMOND<sub>x</sub> SERIES HPVI<sub>x</sub>



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High Power Voltage/Current Programmable  
Power Source

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## Highlights

- Fast throughput with high power pulsed mode operation
- Transient detect capability to capture perturbations at the device in program development, or production test
- Reduced loadboard complexity using the SmartMux for high voltage and current signal routing

## Features:

- 8 channels
- SmartMux capabilities
- Transient detection
- Four quadrant force voltage or force current operation
- Continuous and pulsed mode operation
- Kelvin force and measurement capability  
+100 V to -40 V  
&  
+40 V to -100 V
- Independent measure ADC per pin
- Sequencer control with local per-channel results buffer

The High Power Voltage/Current Source (HPVI<sub>x</sub>) is a high voltage programmable power supply for the Diamond<sub>x</sub> test system targeted for use in power management, automotive, and display driver applications.

# DIAMOND<sub>x</sub> SERIES HPVI<sub>x</sub>

The High Power Voltage/Current Source (HPVI<sub>x</sub>) is a high voltage, high current programmable power supply for the Diamond<sub>x</sub> test system. HPVI<sub>x</sub> is targeted for use in power management, automotive and display driver applications. The HPVI<sub>x</sub> support the following features:

- An eight-channel board providing fully independent floating operation.
- SmartMux capabilities that enable:
  - Fanning each channel out to four different DUT IO path
  - Mapping tow alternate loadboard connected signals to the DUT connection path
- Transient detection that enables monitoring for unexpected voltages or currents at the device under test.
- Four quadrant force voltage (FV) or force current (FI) operation.
- Continuous and pulsed mode operation.
- Up to 250K samples/second.
- 4K Measure FIFO per channel, simplifying multisite measurements.

## Key Specifications

Feature	± Ranges	Resolution	Maximum Force / Measure Value
Force Voltage	100 V, 50 V, 25 V, 10 V, 5 V, 2.5 V	16 bits	+100 V to -40 V +40 V to -100 V
Measure Voltage	100 V, 50 V, 25 V, 10 V, 5 V, 2.5 V	16 bits	
Force Current	500 mA, 50 mA, 5 mA, 500 µA, 50 µA, 5 µA	16 bits	continuous 50 mA pulsed 500 mA 10 ms max, 10% duty cycle
Measure Current	500 mA, 50 mA, 5 mA, 500 µA, 50 µA, 5 µA	16 bits	

