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Data Sheet

August 13, 2026

AGILENT / HP / KEYSIGHT

Agilent HP Keysight B1525A

Keysight B1525A High Voltage Semiconductor Pulse Generator Unit HV-SPGU The Keysight B1525A HV-SPGU is a plug-in module for the B1500A Semiconductor Device Analyzer providing synchronized dual-channel high-voltage pulses for pulsed IV parametric testing. It sources up to ± 40 V and 400 mA with arbitrary linear waveform generation at 10 ns resolution for GaAs/HEMT and non-volatile memory characterization. The Keysight B1525A HV-SPGU is a plug-in module for the B1500A Semiconductor Device Analyzer providing synchronized dual-channel high-voltage pulses for pulsed IV parametric testing. It sources up to ± 40 V and 400 mA with arbitrary linear waveform generation at 10 ns resolution for GaAs/HEMT and non-volatile memory characterization.

**MODEL****Agilent / HP /
Keysight B1525A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****B1525A****LISTING**<https://aumictechlabs.com/products/b1525a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight B1525A High Voltage Semiconductor Pulse Generator Unit (HV-SPGU) is a plug-in module for the B1500A Semiconductor Device Analyzer that delivers pulsed IV parametric test capabilities for medium to high-power semiconductor devices. It generates precise, high-speed voltage and current pulses with 10 ns resolution arbitrary waveform control, enabling dynamic characterization of GaAs, HEMT, SiC, GaN, and other power semiconductor technologies. The module operates across ± 40 V and 400 mA output ranges with two independent channels, each supporting two-level and three-level pulse generation. Technical Specifications Output Voltage:

±40 V maximum Output Current: 400 mA maximum Channels: Two per module Pulse Width: Minimum 5 μ s (limited by measurement interval) Waveform Resolution: 10 ns arbitrary waveform generation Voltage Monitoring: 5 μ s sampling interval with output voltage monitor Voltage Accuracy: $\pm(0.04\% + 150 \text{ nA} + 1 \text{ nA} \times V_o)$ for specified ranges Current Accuracy: $\pm(0.04\% + 1.5 \mu\text{A} + 10 \text{ nA} \times V_o)$ for specified ranges Measurement Resolution: Minimum displayed resolution as low as 1 aA in 1 pA range

Key Features Two-level and three-level pulse capability per single channel 5 μ s pulsed IV test solution with high sampling accuracy Flexible arbitrary waveform generation with 10 ns timing resolution Output voltage monitoring with 5 μ s sampling interval Attainment Units: 40 minutes warm-up plus self-calibration required

Typical Applications GaAs and HEMT device characterization for RF applications SiC and GaN power device pulsed IV parametric measurement Medium to high-power semiconductor device analysis Non-volatile memory testing

Compatibility & Integration Host: Keysight B1500A Semiconductor Device Analyzer Software Control: Keysight EasyEXPERT Operating Environment: 23 °C $\pm$ 5 °C, 20–60% humidity for calibration

Features & description

From manufacturer datasheet

Features

• Two independent channels per module • Output up to ± 40 V open load • Up to 400 mA into 50 ohm at 20 V • Pulsed IV width 5 μ s to 10 s class for measurement solution • Arbitrary linear waveform generation 10 ns resolution • Output voltage monitor with 5 μ s sampling interval • Up to five HV-SPGU modules per B1500A mainframe

Applications

• Pulsed I_d - V_d and I_d - V_g characterization of RF FETs • Non-volatile memory high-voltage pulse programming • Medium-power pulsed IV without rack-and-stack scopes • Synchronized gate and drain pulsing on three-terminal devices

B1525A Characteristics / Specifications

PARAMETER	VALUE
Model	B1525A
Manufacturer	Keysight / Agilent
Instrument Type	High Voltage Semiconductor Pulse Generator Unit
Alias	B1525A; HV-SPGU; Keysight B1525A
Host mainframe	B1500A Semiconductor Device Analyzer
Channels per module	2
Maximum modules per mainframe	5
Maximum output voltage	+/-40 V
Maximum current	400 mA
Current into 50 ohm at 20 V	400 mA
Pulsed IV pulse width solution	5 us to approximately 10 s
Minimum pulse width module class	50 ns specified class; measurement limited by current interval
Current measurement resolution	40 uA
Waveform resolution	10 ns
Pulse levels per channel	two-level and three-level
Voltage monitor sample interval	5 us
Software	EasyEXPERT / Desktop EasyEXPERT 3.2 or later
Application tests	pulsed Id-Vd and Id-Vg HV-SPGU library
Sync cable	16493Q SPGU synchronous cable 8 cm
Output cable class	16493P SMA to coaxial
Add on package	B1500A-A25 pulse generator unit package
Slot weight factor	12 (configuration budget)
Target devices	GaAs HEMT RF MOSFET NVM
Output connectors	SMA class
Form factor	single slot B1500A plug-in

PARAMETER	VALUE
Current measure method	calculated from monitored voltage and known output impedance Notes Specs from Keysight pulsed-IV technical overviews 5990-3786EN / 5990-3672EN and B1500A configuration guide. Confirm installed cables and EasyEXPERT revision.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Confirm installed cables and EasyEXPERT revision.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.