

**Tektronix**

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# 2601B-PULSE System SourceMeter<sup>®</sup> 10 $\mu$ sec Pulser/SMU Instrument

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PRODUCT FACTSHEET

# 2601B-PULSE System SourceMeter® 10µsec Pulser/SMU Instrument



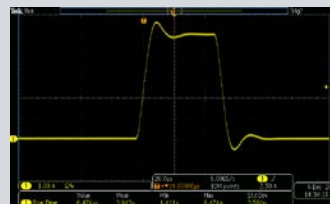
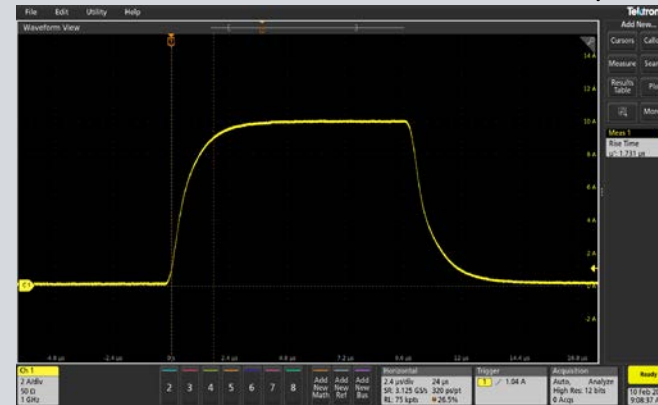
## Features

- Industry leading Source Measure Unit with PulseMeter™ technology for 10 A @ 10 V, 10 microsecond pulse output
- No tuning required for inductive loads up to 3 µH
- Dual 1 Megasample/sec digitizers for high speed I/V pulse measurements (Pulser function only)
- DC capability up to ±40 V @ ±1.0 A, 40 Watt
- TSP (Test Script Processing) technology embeds complete test programs inside the instrument for best-in-class system-level throughput

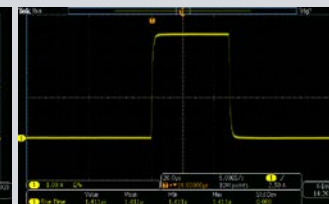
## Benefits

- Make DC/Pulse voltage and current measurements with a single instrument
- Minimize device self-heating; minimize burned probe tips
- No tuning of pulse output to ensure pulse fidelity
- Remote test head is not required enabling greater space savings

## Superior Current Pulse Output Performance at 10A @ 10V at 10µsec



Typical Pulse output with overshoot and 6.47 µsec rise time from a competitive SMU



2601B-PULSE output without overshoot and 1.4 µsec rise time using PulseMeter® technology.

## Typical Applications

Ideal for current/voltage ((I/V) characterization and functional test of a wide range of today's modern electronics and devices, such as applications like:



VCSELs for LIDAR



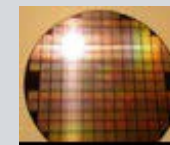
VCSELs for Facial Recognition



Circuit Protection Device Testing



SSD Power Management Fault Detection



Wafer Level Reliability Test

# 2601B-PULSE System SourceMeter® 10µsec Pulser/SMU Instrument

## Pulser Condensed Specifications

### Current Specifications

Source		
Range	Programming Resolution	Accuracy (23°C ±5°C) 1 Year +/- (% setting + volts)
1A	100 µA	0.17 % + 2.0 mA
5A	100 µA	0.17 % + 2.5 mA
10A	100 µA	0.22 % + 3.0 mA

Measure		
Range	Display Resolution	Accuracy (23°C ±5°C) 1 Year +/- (% setting + volts)
1A	1 µA	0.12 % + 0.5 mA
5A	1 µA	0.12 % + 1 mA
10A	10 µA	0.12 % + 1 mA

### Voltage Specifications

Measure		
Range	Display Resolution	Accuracy (23°C ±5°C) 1 Year +/- (% setting + volts)
5A	1 µV	0.05 % + 2.5 mV
10A	10 µV	0.05 % + 4 .0mV

### Pulse Limits

+/- 10 A @ +/- 10V pulse (3% duty cycle)
+/- 3 A @ +/- 10V pulse (10% duty cycle)
+/- 1 A @ +/- 10V pulse (30% duty cycle)
+/- 500 mA @ +/- 10V pulse (60% duty cycle)
+/- 250 mA @ +/- 10V continuous

Refer to [www.tektronix.com](http://www.tektronix.com) for additional product details, complete specifications, application notes, software, videos, product tours.

Specifications are subject to change without notice.



# 2601B-PULSE System SourceMeter® 10µsec Pulser/SMU Instrument

## SMU DC Condensed Specifications

### DC Voltage Specifications

Source				Measure		
Range	Max. DC Current	Programming Resolution	Accuracy (23°C ±5°C) 1 Year +/- (% setting + volts)	Default Display Resolution	Input Resistance	Accuracy (23°C ±5°C) 1 Year +/- (% reading + volts)
100mV	3A	5 µV	0.02 % + 250 µV	100 nV	> 10 GΩ	0.015 % + 150 µV
1 V	3A	50 µV	0.02 % + 400 µV	1 µV	> 10 GΩ	0.015 % + 200 µV
6 V	3A	50 µV	0.02 % + 1.8 mV	10 µV	> 10 GΩ	0.015 % + 1 mV
40 V	1A	500 µV	0.02 % + 12 mV	10 µV	> 10 GΩ	0.015 % + 8 mV

### DC Current Specifications

Source				Measure		
Range	Max. Voltage	Programming Resolution	Accuracy (23°C ±5°C) 1 Year +/- (% setting + amps)	Default Display Resolution	Voltage Burden	Accuracy (23°C ±5°C) 1 Year +/- (% reading + amps)
100 nA	40V	2 pA	0.1 % + 100 pA	100 fA	< 1 mV	0.080 % + 100 pA
1 µA	40V	20 pA	0.03 % + 800 pA	1 pA	< 1 mV	0.025 % + 500 pA
10 µA	40V	200 pA	0.03 % + 5 nA	10 pA	< 1 mV	0.025 % + 1.5 nA
100 µA	40V	2 nA	0.03 % + 60 nA	100 pA	< 1 mV	0.020 % + 25 nA
1 mA	40V	20 nA	0.03 % + 300 nA	1 nA	< 1 mV	0.020 % + 200 nA
10 mA	40V	200 nA	0.03 % + 6 µA	10 nA	< 1 mV	0.020 % + 2.5 µA
100 mA	40V	2 µA	0.03 % + 30 µA	100 nA	< 1 mV	0.020 % + 20 µA
1 A	40V	20 µA	0.05 % + 1.8 mA	1 µA	< 1 mV	0.030 % + 1.5 mA
3 A	6V	20 µA	0.06 % + 4 mA	1 µA	< 1 mV	0.050 % + 3.5 mA
10 A	20V	200 µA	0.5 % + 40 mA	10 µA	< 1 mV	0.400 % + 25 mA

- 10A range accessible only in SMU DC Pulse mode
- LXI, USB2.0, GPIB, LAN, TSP-Link® and digital I/O Interfaces are supported.
- USB 2.0 port (memory I/O) on front panel for data import/export and system upgrades

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### Ordering Information

2601B-PULSE System SourceMeter®  
10 µsec Pulser / SMU  
Instrument

### Accessories Supplied

2601B-P-INT Interlock/Connector Board  
7709-308A Digital I/O Connector  
17469460X TSP-Link/Ethernet Cable  
2601B-PULSE QuickStart Guide  
Test Script Builder Software ([www.tektronix.com](http://www.tektronix.com))  
KickStart Startup Software ([www.tektronix.com](http://www.tektronix.com))  
LabVIEW and IVI Drivers ([www.tektronix.com](http://www.tektronix.com))  
Manual Documentation ([www.tektronix.com](http://www.tektronix.com))

### Recommended Accessories

2601B-PULSE-CA1 1.2 meter BNC to BNC 50 Ohm Cables set  
2601B-PULSE-CA2 2 independent 3.0 meter 50 ohm BNC to BNC coax cables used for SHI and SLO. Required accessory for the 2601B-PULSE-CA3 cable set.  
2601B-PULSE-CA3 3.0 meter 15 Ohm BNC to BNC cable kit. The 2601B-PULSE-CA2 option is required with this accessory.

### Recommended Services

2601B-PULSE-3Y-EW 1-year factory warranty extended to 3 years from date of shipment  
2601B-PULSE-5Y-EW 1-year factory warranty extended to 5 years from date of shipment



# Tektronix®

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