

Selector Guide

SourceMeter® SMU Instruments

20-100W BENCH SMU INSTRUMENTS							
MODEL	2400, 2401 2400-C 2400-LV	2410 2410-C	2420 2420-C	2425 2425-C	2440 2440-C	2450	2460
POWER OUTPUT	22 W	22 W	66 W	110W	55 W	20 W	100 W
CURRENT CAPABILITY							
Min.	±1 pA	±1 pA	±10 pA	±10 pA	±10 pA	±10 fA	±1 pA
Max	±1.05 A	±1.05 A	±3.15 A	±3.15 A	±5.25 A	±1.05 A	±7.35 A
VOLTAGE CAPABILITY							
Min.	±100 nV	±100 nV	±100 nV	±100 nV	±100 nV	±10 nV	±100 nV
Max.	±21/±210 V ²	±1100 V	±63 V	±105 V	±42 V	±210 V	±105 V
OHMS RANGE³	<0.2 Ω to >200 MΩ	<0.2 Ω to >200 MΩ	<0.2 Ω to >200 MΩ	<0.2 Ω to >200 MΩ	<0.2 Ω to >200 MΩ	<0.2 Ω to >200 MΩ	<2.0 Ω to >20 MΩ
BASIC ACCURACY							
I	0.035%	0.035%	0.035%	0.035%	0.035%	0.020%	0.020%
V	0.015%	0.015%	0.015%	0.015%	0.015%	0.012%	0.012%
Ω	0.06 %	0.07 %	0.06 %	0.06 %	0.06 %	0.043%	0.040%
READING SPEED	2,081 rdgs/s	2,081 rdgs/s	2,081 rdgs/s	2,081 rdgs/s	2,081 rdgs/s	3,130 rdgs/s	3,000 rdgs/s
FEATURE SUMMARY							
Pulse Mode	No	No	No	No	No	No	No
Embedded Scripting/Execution	Source-Memory List	Source-Memory List	Source-Memory List	Source-Memory List	Source-Memory List	Source-Memory List, Config List, Test Script Processor (TSP®) Technology	Config List, Test Script Processor (TSP®) Technology
Contact Check	-C version	-C version	-C version	-C version	-C version	No	No
Selectable Front/Rear Inputs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Test Leads/Cables	Banana	Banana	Banana	Banana	Banana	Front: Banana Rear: Triax	Front: Banana Rear: Screw terminal
Computer Interface	IEEE-488, RS-232	IEEE-488, RS-232	IEEE-488, RS-232	IEEE-488, RS-232	IEEE-488, RS-232	USB 2.0, LAN/LXI 1.4 Core, IEEE-488	USB 2.0, LAN/LXI 1.4 Core, IEEE-488
Digital I/O	1 In/4 Out with built-in component handler interfaces (except Model 2401).	1 In/4 Out with built-in component handler interfaces.	1 In/4 Out with built-in component handler interfaces.	1 In/4 Out with built-in component handler interfaces.	1 In/4 Out with built-in component handler interfaces.	6 digital I/O-trigger lines	6 digital I/O-trigger lines
Other	6½-digit resolution. 6 wire ohms mode. LabView drivers.	6½-digit resolution. 6 wire ohms mode. LabView drivers.	6½-digit resolution. 6 wire ohms mode. LabView drivers.	6½-digit resolution. 6 wire ohms mode. LabView drivers.	6½-digit resolution. 6 wire ohms mode. LabView drivers.	5 inch capacitive touchscreen. 6½-digit resolution. Built-in "Quickset" configuration modes. Context-sensitive help. Scalable to 32 channels with TSP-Link Technology. KickStart out-of-the box software. LabView drivers. IVI drivers.	
Compliance	CE, UL	CE	CE	CE	CE	CE, NRTL listed	CE, NRTL listed

1. In pulse mode.
2. Models 2401 and 2400-LV 21V max.
3. Ohms measurements on Series 2600 instruments are user-calculated.

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20-100W SYSTEM SMU INSTRUMENTS		100-200W POWER SMU INSTRUMENTS				LOW CURRENT SMU INSTRUMENTS	
2601B 2602B 2604B	2611B 2612B 2614B	2430 2430-C	2461	2651A	2657A	2634B 2635B 2636B	6430
40 W/channel	30 W/channel	1100 W ¹	1000 W pulsed/ 100 W DC	2,000 W pulsed/ 200 W DC	180 W	30 W/channel	2 W
±100 fA	±100 fA	±10 pA	±1 pA	±100 fA	±1 fA	±0.1 fA (2635B, 2636B) ±1 fA (2634B)	±0.01 fA
±3 A DC/10 A pulsed per channel	±1.5 A DC/10 A pulsed per channel	±10.5 A ¹	±10 A	±50 A (±100 A when two units are connected in parallel)	±120 mA	±1.5 A DC/10 A pulsed per channel	±105 mA
±100 nV	±100 nV	±100 nV	±100 nV	±100 nV	±100 nV	±100 nV	±1 μV
±40 V	±200 V	±105 V	±100 V	±40 V	±3000 V	±200 V	±210 V
0.5 μΩ to 40 TΩ	0.5 μΩ to 100 TΩ	<0.2 Ω to >200 MΩ	<2.0 Ω to >200 MΩ	<0.1 μΩ to 20 TΩ	<0.4 Ω to 100 PΩ	0.5 μΩ to 10 PΩ	<2.0 Ω to >20 TΩ
0.02 %	0.02 %	0.035%	0.020%	0.02 %	0.02 %	0.02 %	0.035%
0.015%	0.015%	0.015%	0.012%	0.015%	0.015%	0.015%	0.012%
Based on V and I range	Based on V and I range	0.06 %	0.040%	Based on V and I range	Based on V and I range	Based on V and I range	0.063%
20,000 rdgs/s	20,000 rdgs/s	2,081 rdgs/s	3,000 rdgs/s and 1 μs per pt digitizer	38,500 rdgs/s and 1 μs per pt digitizer	38,500 rdgs/s and 1 μs per pt digitizer	20,000 rdgs/s	256 rdgs/s
Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Test Script Processor (TSP®) Technology	Test Script Processor (TSP®) Technology	Source-Memory List	Config List, Test Script Processor (TSP®) Technology	Test Script Processor (TSP®) Technology	Test Script Processor (TSP®) Technology	Test Script Processor (TSP®) Technology	Source-Memory List
Yes (not available for 2604B)	Yes (not available for 2614B)	-C version	Yes	Yes	Yes	Yes (not available for 2634B)	No
Rear only	Rear only	Yes	Yes	Rear only	Rear Only	Rear only	Rear and Preamp
Screw terminal; adapters available for banana or triax	Screw terminal; adapters available for banana or triax	Banana	Front: Banana Rear: Screw terminal	Screw terminal; adapters available for banana or triax	HV triax	Triax	Triax
USB 2.0, LAN/LXI-C, IEEE-488, RS-232	USB 2.0, LAN/LXI-C, IEEE-488, RS-232	IEEE-488, RS-232	USB 2.0, LAN/LXI 1.4 Core, IEEE-488	LAN/LXI, IEEE-488, RS-232	LAN/LXI-C, IEEE-488, RS-232	USB 2.0, LAN/LXI, IEEE-488, RS-232	IEEE-488, RS-232
14 digital I/O-trigger lines (no digital I/O available for 2604B)	14 digital I/O-trigger lines (no digital I/O available for 2614B)	1 In/4 Out with built-in component handler interfaces (except Model 2401).	6 digital I/O-trigger lines	14 digital I/O trigger lines	14 digital I/O trigger lines	14 digital I/O-trigger lines (no digital I/O available for 2634B)	1 In/4 Out with built-in component handler interfaces
6½-digit resolution. Scalable to 64 channels with TSP-Link Technology (not available for 2604B or 2614B). Built-in Web-based characterization software. LabView driver.	6½-digit resolution. Scalable to 64 channels with TSP-Link Technology (not available for 2604B or 2614B). Built-in Web-based characterization software. LabView driver.	6½-digit resolution. 6 wire ohms mode. LabView drivers.	6½-digit resolution. 6 wire ohms mode. LabView drivers.	5 inch capacitive touchscreen. 6½-digit resolution. Built-in "Quickset" configuration modes. Context-sensitive help. Scalable to 32 channels with TSP-Link Technology. KickStart out-of-the box software. LabView drivers. IVI drivers.	6½-digit resolution. 6 wire ohms mode. LabView drivers.	6½-digit measurement resolution. Scalable to 64+ channels with TSP-Link Technology (not available for 2634B.) Built-in Web-based characterization software. LabView driver.	6½-digit resolution. 6 wire ohms mode. LabView drivers.
CE, UL	CE, UL	CE	CE, NRTL listed	CE, UL	CE, ETL	CE, UL	CE

Specifications are subject to change without notice.