

## Tektronix / Keithley DMM Comparison Table

MODEL	BASIC PERFORMANCE							HIGH SPEED, HIGH ACCURACY	HIGH ACCURACY			MULTI-CHANNEL MEASUREMENT					MODEL
	DMM4020	2110	2100	DMM4040	DMM4050	2000	DMM6500	DMM7510	2010	2001	2002	2700	2701	DAQ6510	2750	3706A	
<b>Display</b>	VFD, 2 line	LCD 2 line	VFD 2 line	VFD, dot matrix	VFD, dot matrix	VFD	Touchscreen, 5 in. (12.7 cm)	Touchscreen, 5 in. (12.7 cm)	VFD	VFD	VFD	VFD	VFD	Touchscreen, 5 in. (12.7 cm)	VFD	VFD 2 line	<b>Display</b>
<b>Digits</b>	5½	5½	6½	6½	6½	6½	6½	7½	7½	7½	8½	6½	6½	6½	6½	7½	<b>Digits</b>
<b>No. Measurement Channels</b>						10	10	10	10	10	10	80	80	80	200	576	<b>No. Measurement Channels</b>
<b>DC VOLTS</b>																	
<b>Measurement Range</b>	1 µV–1000 V	1 µV–1000 V	0.1 µV–1000 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	10 nV–1010 V	10 nV–1000 V	10 nV–1100 V	1 nV–1100 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	10 nV–300 V	<b>Measurement Range</b>
<b>Basic Accuracy</b>	0.015%	0.012%	0.0038%	0.0035%	0.0024%	0.003%	0.0025%	0.0014%	0.0024%	0.0024%	0.001%	0.003%	0.003%	0.0025%	0.003%	0.0025%	<b>Basic Accuracy</b>
<b>Ratio</b>			✓	✓	✓		✓	✓	✓	Option	Option	w/MUX card	w/MUX card	w/MUX card	w/MUX card		<b>Ratio</b>
<b>DC Peak Spikes</b>										✓	✓						<b>DC Peak Spikes</b>
<b>AC VOLTS (TRMS)</b>																	
<b>Measurement Range</b>	1 µV–750 V	1 µV–750 V	0.1 µV–750 V	100 nV–1000 V	100 nV–1000 V	100 nV–750 V	100 nV–750 V	100 nV–707 V	100 nV–750 V	100 nV–775 V	100 nV–775 V	100 nV–750 V	100 nV–750 V	100 nV–750 V	100 nV–750 V	100 nV–300 V	<b>Measurement Range</b>
<b>Basic Accuracy</b>	0.2%	0.12%	0.08%	0.12%	0.12%	0.05%	0.05%	0.06%	0.05%	0.03%	0.02%	0.06%	0.06%	0.05%	0.06%	0.05%	<b>Basic Accuracy</b>
<b>Bandwidth</b>	20 Hz–100 kHz	10 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz to 300 kHz	3 Hz–300 kHz	1 Hz–2 MHz	1 Hz–2 MHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	<b>Bandwidth</b>
<b>dB, dBm</b>	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓					✓	<b>dB, dBm</b>
<b>Frequency, Period</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>Frequency, Period</b>
<b>OHMS (2/4 WIRE)</b>																	
<b>Measurement Range</b>	1 mΩ–100 MΩ	1 mΩ–100 MΩ	100 µΩ–100 MΩ	10 µΩ–1 GΩ	10 µΩ–1 GΩ	100 µΩ–120 MΩ	1 µΩ–120 MΩ	0.1 µΩ–1.2 GΩ	1 µΩ–120 MΩ	1 µΩ–1 GΩ	100 nΩ–1 GΩ	100 µΩ–120 MΩ	100 µΩ–120 MΩ	1 µΩ–120 MΩ	1 µΩ–120 MΩ	100 nΩ–100 MΩ	<b>Measurement Range</b>
<b>Basic Accuracy</b>	0.02%	0.02%	0.015%	0.01%	0.01%	0.008%	0.0075%	0.0024%	0.0032%	0.0032%	0.0007%	0.008%	0.008%	0.0075%	0.008%	0.004%	<b>Basic Accuracy</b>
<b>Continuity Test</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	<b>Continuity Test</b>
<b>Diode Test</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	<b>Diode Test</b>
<b>Offset Compensation</b>							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>Offset Compensation</b>
<b>Dry Circuit</b>							✓	✓	✓						✓	✓	<b>Dry Circuit</b>
<b>DC AMPS</b>																	
<b>Measurement Range</b>	1 nA–10 A	0.1 µA–10 A	10 nA–3 A	100 pA–10 A	100 pA–10 A	10 nA–3 A	10 pA–10 A	1 pA–10.1 A	1 nA–3 A	10 pA–2 A	10 pA–2 A	10 nA–3 A	10 nA–3 A	10 pA–3 A	10 nA–3 A	1 pA–3 A	<b>Measurement Range</b>
<b>Basic Accuracy</b>	0.02%	0.15%	0.055%	0.05%	0.05%	0.03%	0.02%	0.006%	0.03%	0.03%	0.027%	0.03%	0.03%	0.02%	0.03%	0.03%	<b>Basic Accuracy</b>
<b>In Circuit Current</b>										✓	✓						<b>In Circuit Current</b>
<b>AC AMPS (TRMS)</b>																	
<b>Measurement Range</b>	0.1 µA–10 A	10 µA–10 A	1 µA–3 A	100 pA–10 A	100 pA–10 A	1 µA–3 A	100 pA–10 A	1 nA–10.1 A	1 µA–3 A	100 pA–2 A	100 pA–2 A	1 µA–3 A	1 µA–3 A	100 pA–3 A	1 µA–3 A	1 nA–3 A	<b>Measurement Range</b>
<b>Basic Accuracy</b>	0.3%	0.3%	0.15%	0.1%	0.1%	0.1%	0.1%	0.08%	0.1%	0.1%	0.1%	0.15%	0.16%	0.10%	0.15%	0.08%	<b>Basic Accuracy</b>
<b>Bandwidth</b>	20 Hz–2 kHz	10 Hz–5 kHz	3 Hz–5 kHz	3 Hz–10 kHz	3 Hz–10 kHz	3 Hz–5 kHz	3 Hz–10 kHz	3 Hz to 10 kHz	3 Hz–5 kHz	20 Hz–100 kHz	20 Hz–100 kHz	3 Hz–5 kHz	3 Hz–5 kHz	3 Hz–10 kHz	3 Hz–5 kHz	3 Hz–10 kHz	<b>Bandwidth</b>
<b>OTHER MEASUREMENTS</b>																	
<b>Capacitance</b>					1 pF–100 µF		0.1 pF–100 µF	0.1 pF–100 µF						0.1 pF–100 µF			<b>Capacitance</b>
<b>Temperature Measurement</b>		TC, RTD, Thermistor	RTD		TC	TC	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD	TC, RTD	TC, RTD	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD, Thermistor	<b>Temperature Measurement</b>
<b>GENERAL FEATURES</b>																	
<b>Interface</b>	RS-232, USB with adapter cable	USB, GPIB (opt.)	USB	LAN, GPIB, RS-232, USB with adapter cable	LAN, GPIB, RS-232, USB with adapter cable	GPIB, RS-232	LAN/LXI, USB, GPIB (opt.), RS-232 (opt.)	GPIB, USB, LAN/LXI	GPIB, RS-232	GPIB	GPIB	GPIB, RS-232	LAN, RS-232	LAN/LXI, USB, GPIB (opt.), RS-232 (opt.)	GPIB, RS-232	GPIB, LAN/LXI, USB	<b>Interface</b>
<b>Reading Hold</b>	✓	✓	✓			✓			✓			✓	✓				<b>Reading Hold</b>
<b>Digital I/O</b>		Trigger In Meter Complete	Trigger In Meter Complete			Trigger In Meter Complete	Trigger In Meter Complete	Trigger In Meter Complete 6 General I/O	Trigger In Meter Complete	Trigger In Meter Complete 1 In, 4 Out	Trigger In Meter Complete 1 In, 4 Out	2 Trigger In, 5 Limit Out	2 Trigger In, 5 Limit Out	Trigger In Meter Complete	2 Trigger In, 5 Limit Out	14 General I/O	<b>Digital I/O</b>
<b>Reading Memory</b>		2000 rdg.	2000 rdg.			1024 rdg.	7 M rdg.	27.5 M rdg.	1024 rdg.	Opt to 30,000	Opt to 30,000	55,000 rdg.	450,000 rdg.	7 M rdg.	110,000 rdg.	650,000 rdg.	<b>Reading Memory</b>
<b>Maximum Speed</b>		50K rdg/s	2000 rdg/s			2000 rdg/s	1 M rdg/s (16-bit digitizing)	1 M rdg/s (18-bit digitizing)	2000 rdg/s	2000 rdg/s	2000 rdg/s	2000 rdg/s	3500 rdg/s	1 M rdg/s (16-bit digitizing)	2500 rdg/s	>14,000 rdg/s	<b>Maximum Speed</b>
<b>Other</b>	Dual Measurement Display				Dual Measurement Display		Embedded Test Script Processor and optional TSP-Link, 6 Digital I/O with Interface Options, Dual Measurement Display	Embedded Test Script Processor and TSP-LINK						Embedded Test Script Processor and optional TSP-Link, 6 Digital I/O with Interface Options		Embedded Test Script Processor and TSP-LINK	