



DMM7510 VS Keysight 34470-34465-3458 DMMs

COMPETITIVE FACT SHEET

19 April 2017

Keithley DMM7510 Vs. Keysight 34470A

Better Accuracy, Higher Speed, and Superior Usability

Keithley DMM7510

- ✓ 7½-digit
- ✓ 1 MS/sec digitizing
- ✓ Five-inch high resolution graphical touchscreen user interface
- ✓ 1 NPLC to rated accuracy (100x faster)



Keysight 34470A

- ✓ 7½-digit
- ✗ 50 kS/sec digitizing
- ✗ No touchscreen capability, cannot interact with data easily
- ✗ 10 NPLC to rated accuracy (10x slower)



- Keithley DMM7510 is the only benchtop DMM with 1MS/sec digitizer and 5 inch high resolution touchscreen

		Key Specification Comparison			
		DMM7510		Keysight 34470A	
Better Accuracy (24 Hours Best Accuracy)	Resolution	✓	7½ digits	✓	7½ digits
	DCV	✓	10 V [2+0.7] @1NPLC	✗	10 V [10+3] @10NPLC
	Ohms	✓	1k [12+3] @ 1NPLC	✗	1k [20+5] @ 10NPLC
	DCI	✓	100µA [20+5] @1NPLC	✗	100µA [70+10] @10NPLC
Higher Speed	Digitizer Rate	✓	1MS/sec	✗	5 k/Sec Standard 50kS/sec (\$400 Upgrade)
	Memory Size	✓	11 Million Standard 27.5 Million Compact	✗	50K Built-In 2 Million (\$250 Upgrade)
Superior Usability	Graphical UI	✓	5-in touchscreen	✗	4.3-in color non-touch screen

*Keysight accuracies for 1uA, 10uA, and 100uA current ranges are specified as “typical”, not as guaranteed.

Appendix: Technical Competitive Comparison

	Feature		Keithley DMM7510	Keysight 34465A	Keysight 34470A	Keysight 3458A
Accuracy	DCV	Best Range [24hr]	10 V [2+0.7] @1NPLC	10V [10+3] @100NPLC	10V [8+2] @10NPLC	10V [0.5+0.05] @100NPLC
		Lowest Range	100 mV	100 mV	100 mV	100 mV
	Ohms	Best Range [24hr]	1k [12+3] @ 1NPLC	10k [20+5] @10NPLC	10k [20+5] @10NPLC	100k [2+0.2] @100NPLC
		Lowest Range	1 Ohm	100 Ohm	100 Ohm	10 Ohm
	DCI	Best Range [24hr]	100µA [20+5] @1NPLC	100 µA [70+10] @10NPLC	100 µA [70+10] @10NPLC	10mA [10+4] @100NPLC
		Lowest Range	10 µA	1 µA	1 µA	100 nA (typical)
Speed	Reading Memory (Volatile)		27.5 million	2 million Option	2 million Option	75 k
	Digitizer	Rate	1 MS/sec	5 K/sec Standard 50 K/sec Option	5 K/sec Standard 50 K/sec Option	100 kS/sec
		# of Bits	18 bits	Not Listed	Not Listed	16 bits
Usability	Graphical User Interface		5-inch touchscreen	4.3" TFT	4.3" TFT	Single line VFD
	Remote Interface		GPIB, USB, LAN/LXI	GPIB (option), USB, LAN/LXI	GPIB (option), USB, LAN/LXI	GPIB
	Resolution		3½ to 7½ digits	4½ to 6½ digits	4½ to 7½ digits	4½ to 8½ digits
	Start-up Software		KickStart	BenchVue	BenchVue	Driver support only
	Auto-Cal		30 days ±5°C	2 days ±2°C	2 days ±2°C	24 Hours ±1°C
Pricing			\$4030	\$1,395 Basic Price \$2,195 with Options	\$2890 Basic Price \$3690 with Option	\$9,586