

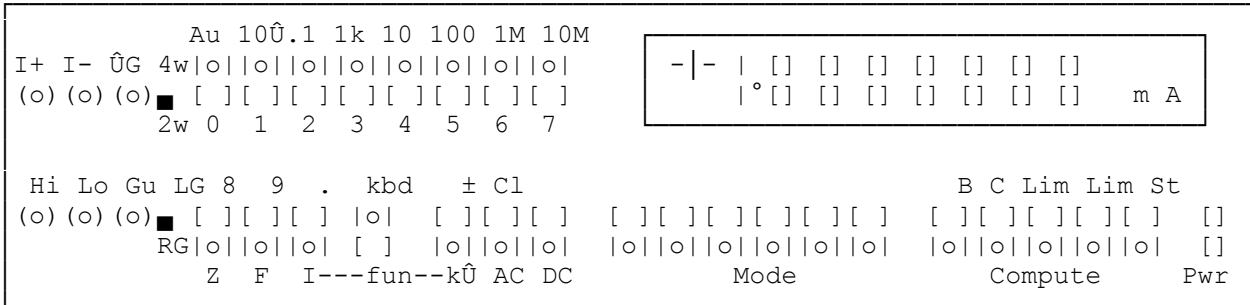
Lab Measuring DMM

By G8MNY

(Corrected Feb 16)

(8 Bit ASCII graphics use code page 437 or 850, Terminal Font)

Years ago I bought a large not working 19" LAB DMM (Datron 1061a). It is an extremely precise 6.5 digits DMM for its time of 1983. Luckily it came with all the handbooks & I am pleased to say is quite serviceable now after finding a silly PCB plug fault. (7.5 dig display)



Here is part of the exacting specification...

+/- 1.999999 on most ranges with the filtering & averaging options in.  
e.g. with a 0.19V input, you can resolve down to ±100nV or 126dB S/N.

DC VOLTS	Input Z	---- Accuracy since last Cal-----		
Range:		24hr,	90 day,	1 year
100mV	>10GΩ	±10ppm or 0.001%,	30ppm,	45ppm
1 & 10V	>10GΩ	±5ppm or 0.0005%,	20ppm,	30ppm
100V & 1kV	>100MΩ	±10ppm or 0.001%,	30ppm,	45ppm

DC CURRENT	---- Accuracy since last Cal-----		
Range:	24hr,	90 day,	1 year
0.1-100mA	±50ppm or 0.005%,	100ppm,	150ppm
1A	±100ppm or 0.01%,	200ppm,	300ppm

Shunts:100mV drop across all shunts for 100% (reads to ±199%).

RESISTANCE	Test	---- Accuracy since last Cal-----		
Range:	Current	24hr,	90 day,	1 year
10Ω	10mA	±15ppm or 0.0015%,	40ppm,	60ppm
100Ω	10mA	±10ppm or 0.001%,	30ppm,	45ppm
1kΩ	1mA	±10ppm or 0,001%	30ppm.	45ppm
10kΩ	100uA	±10ppm or 0.001%,	30ppm,	45ppm
100kΩ	10uA	±15ppm or 0.0015%	40ppm.	60ppm
1MΩ	1uA	±30ppm or 0.003%,	100ppm,	200ppm
10MΩ	100nA	±150ppm or 0.015%,	300ppm,	500ppm

Measurement is 2 or true 4 wire system & with up to 10Ω lead Resistance. And it also measures in circuit 1 of 3 Rs.

AC RMS VOLTS	Input Z	---- Accuracy since last Cal-----		
Range		24hr,	90 day,	1 year
100mV	1MΩ//150pF	±0.04%	±0.08%	±0.12%
1-100V	1MΩ//150pF	±0.02%	±0.04%	±0.06%
100mV	1MΩ//150pF	±0.04%	±0.08%	±0.12%

Frequency Response flat 10Hz - 1MHz @ -2%  
True RMS measurements to 7:1 crest to mean factor.

AC RMS CURRENT	---- Accuracy since last Cal-----		
Range:	24hr	90 day,	1 year
0.1-1A	0.1%,	0.2%,	0.3%

Shunts: as DC

True RMS measurements to 3:1 crest to mean factor.

Other features:

AC+DC True RMS option for Volts & Current as AC ranges.

Local or separate screen guard system.

IEEE interface for automatic readings/logging.

Go/fail % testing.

Reading accuracy calculation.

Direct entry number keyboard.

dB calculation/readings on all ranges to  $\pm 0.01$ dB.

Pre use calibrated self check.

Security key locked calibration, easy press button cal features.

See my tech bul on "Measuring 1 of 3 Rs"

Why Don't U send an interesting bul?

73 De John, G8MNY @ GB7CIP