

Aplab

6½ DIGIT HIGH PERFORMANCE DMM M3500A



Features

- Stability, Speed and Accuracy
- Excellent Noise Immunity
- 6 ½ Digits
- Display : 5 x 7 dot matrix VFD, dual displays with three-color annunciators
- High Speed : Both sampling rate and data rate are at 2000 readings/sec. (at 4 ½ digit setting)
- Remote Interface : USB and GPIB (optional)
- High Accuracy :
DC voltage : $\pm 0.0015\%$ of reading (24-hour)
AC voltage : $\pm 0.04\%$ of reading (24-hour).
- Resolution : DC/AC voltage : $0.1\mu V$, DC Amp : $10nA$, AC Amp : $1\mu A$
Resistance : $100\mu\Omega$.
- AC Measurement Range : 3Hz to 300kHz. Resolution: $1\mu Hz$
- High Capacity of Internal Data Memory :
It can store up to 2000 readings at the speed @ 2000 readings/second in the data memory.
- 19 Full-Featured Operations : There are 11 measurements and 8 math functions.
- Temperature Measurements :
The built-in function supports two measurement methods : Thermocouples-supports upto 7 types of sensors : E.J.K.N.R.S and T. and RTDs adopting stand ards, IT90, IEC 751 and Callendar-Van Dusen.
- Free PC Applications :
We provide Matlab and LabView applications that allows user to do a variety of tasks. Also feature the PT-Tool that can acquire data directly from the measurement into S Word or Excel. Even without MS Word or Excel, user can choose our PT-Link, which is a stand-alone application.
- Multi-Point Scan-supports up to 10 Channels (2 pole) through optional multipoint Scanner.

Technical Specifications

DC CHARACTERISTICS

Function	Range	Input Resistance	24 hours accuracy ±(% of reading + % of range) (23°C ±1°C)
DCV(DC Voltage)	100.0000mV	>10GΩ	0.0030 + 0.0030
	1.000000V	>10GΩ	0.0020 + 0.0006
	10.00000V	>10GΩ	0.0015 + 0.0004
	100.0000V	10MΩ	0.0020 + 0.0006
	1000.000V	10MΩ	0.0020 + 0.0006

Function	Range	Shunt Resistance	24 hours accuracy ±(% of reading + % of range) (23°C ±1°C)
DCI (DC Current)	10.00000mA	5.1Ω	0.005 + 0.010
	100.0000mA	5.1Ω	0.01 + 0.004
	1.000000A	0.1Ω	0.05 + 0.006
	3.000000A	0.1Ω	0.10 + 0.020

Function	Range	Test Current	24 hours accuracy ±(% of reading + % of range) (23°C ±1°C)
Resistance (Specifications are for 4W or 2W when a NULL operation used)	100.0000Ω	1mA	0.0030 + 0.010
	1.000000KΩ	1mA	0.0020 + 0.0005
	10.00000KΩ	100μA	0.0020 + 0.0005
	100.0000KΩ	10μA	0.0020 + 0.0005
	1.000000MΩ	5μA	0.002 + 0.001
	10.00000MΩ	500nA	0.015 + 0.001
	100.0000MΩ	500nA//10MΩ	0.300 + 0.010
Diode Test	1.0000V	1mA	0.002 + 0.010
Continuity 2W	1 KΩ	1mA	0.002 + 0.010

Dimension & Weight	85 (H) x 210 (W) x 350 (D) mm approx. 4.36 Kg.
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FREQUENCY AND PERIOD

Function	Range	Frequency (Hz)	24 hours accuracy ±(% of reading + % of range) (23°C ±1°C)
Frequency & Period	100mV to 750V	3 - 5	0.10
		5 - 10	0.05
		10 - 40	0.03
		40 - 300K	0.006

AC CHARACTERISTICS

Function	Range	Frequency (Hz)	24 hours accuracy \pm (% of reading + % of range) (23°C \pm 1°C)
ACV (AC RMS Voltage)	100.0000mV	3 - 5	1.00 + 0.03
		5 - 10	0.35 + 0.03
		10 - 20K	0.04 + 0.03
		20K - 50K	0.10 + 0.05
		50K - 100K	0.55 + 0.08
		100K - 300K	4.00 + 0.50
	1.000000V to 750.000V	3 - 5	1.00 + 0.02
		5 - 10	0.35 + 0.02
		10 - 20K	0.04 + 0.02
		20K - 50K	0.10 + 0.04
		50K - 100K	0.55 + 0.08
		100K - 300K	4.00 + 0.50
ACI (AC RMS Current)	1.000000A	3 - 5	1.00 + 0.04
		5 - 10	0.30 + 0.04
		10 - 5K	0.10 + 0.04
	3.000000A	3 - 5	1.10 + 0.06
		5 - 10	0.35 + 0.06
		10 - 5K	0.15 + 0.06

Note : The 24 hours accuracy in the specifications is relative to the calibration accuracy.

ACCESSORIES

- **Standard**

CD (User Manual and Software Applications), Power Cord, Test Leads and USB Cable.

- **Optional**

1. Multi-Point Scanner Card : M3500 - opt01
2. Thermal Adapter : M3500 - opt02
3. BNC to Banana Adapter : M3500 - opt03
4. GPIB Card : M3500 - opt04

WE PURSUE A POLICY OF CONTINUOUS DEVELOPMENT AND PRODUCT IMPROVEMENT. THUS THE SPECIFICATIONS IN THIS DOCUMENT AND THE LOCATION OF CONTROLS ON THE FRONT PANEL MAY BE CHANGED WITHOUT NOTICE.

Aplab Test & Measurement Instruments

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