

A. Specification List¹

DC CHARACTERISTICS			
Function	Range	Resolution	1 Year Accuracy ²
DCV	100.0000 mV	0.1 μ V	0.0080+0.0045
	1.000000 V	1.0 μ V	0.0090+0.0010
	10.00000 V	10 μ V	0.0120+0.0020
	100.0000 V	100 μ V	0.0120+0.0020
	1000.000 V	1 mV	0.0130+0.0030
DCI	10.00000 mA	10 nA	0.050+0.020
	100.0000 mA	100 nA	0.050+0.010
	1.000000 A	1 μ A	0.150+0.020
	3.00000 A ³	10 μ A	0.20+0.030
	10.00000 A	10 μ A	0.250+0.050
2W Ω ⁴ /4W Ω	100.0000 Ω	100 $\mu\Omega$	0.020+0.005
	1.000000 K Ω	1 m Ω	0.020+0.002
	10.00000 K Ω	10 m Ω	0.020+0.002
	100.0000 K Ω	100 m Ω	0.020+0.002
	1.000000 M Ω	1 Ω	0.020+0.004
	10.00000 M Ω	10 Ω	0.100+0.004
	100.0000 M Ω	100 Ω	1.500+0.005
DIODE	1.00000 V	10 μ V	0.020+0.020
CONTINUITY (for 2W Ω)	1000.00 Ω	10 m Ω	0.020+0.030

FREQUENCY & PERIOD			
Function	Range	Frequency (Hz)	1 Year Accuracy

¹ The specifications are under 2-hour warm-up condition with the setting 10 PLC, and they're relative to the calibrator specifications in PICOTEST.

² \pm (% of reading + % of range), (23 $^{\circ}$ C \pm 5 $^{\circ}$ C)

³ The M3511A doesn't support the range 3A.

⁴ The Null function must be used when the 2W Ω is adopted.

FREQUENCY & PERIOD	100 mV to 750 V ⁵	10-40	0.03
		40-300K	0.02

AC CHARACTERISTICS				
Function	Range	Resolution	Frequency (Hz)	1 Year Accuracy
ACV (TRMS)	100.0000 mV	0.1 μ V	10-20K	0.1200 +0.050
			20K-50K	0.2500+0.050
			50K-100K	0.6500+0.080
			100K-300K	4.5000+0.500
	1.000000 V to 750.0000 V	1.0 μ V to 1 mV	10-20K	0.1200+0.040
			20K-50K	0.2500+0.050
			50K-100K	0.6500 +0.080
			100K-300K	4.5000+0.500
ACI (TRMS)	1.000000 A	1 μ A	10-5K	0.200+0.040
	3.00000 A	10 μ A	10-5K	0.300 +0.060
	10.00000 A	10 μ A	10-5K	0.500+0.120

CAPACITANCE CHARACTERISTICS			
Function	Range	Test Current	1 Year Accuracy
CAPACITANCE⁶	1 nF	10 μ A	2.0+0.80
	10 nF	10 μ A	1.0+0.50
	100 nF	100 μ A	1.0+0.50
	1 μ F	100 μ A	1.0+0.50
	10 μ F	100 μ A	1.0+0.50
	100 μ F	1 mA	1.0+0.50
	1000 μ F	1 mA	1.0+0.50
	10000 μ F	1 mA	2.0+0.50

⁵ The Range 750 V is limited to 100 KHz.

⁶ The Null function must be used.

TEMPERATURE CHARACTERISTICS			
Function	Type	Range	1 Year Accuracy
THERMOCOUPLE⁷	B	600°C~1820°C	1.5°C
	C	0°C~2316°C	1.5°C
	E	-250°C~1000°C	1.5°C
	J	-210°C~1200°C	1.0°C
	K	-200°C~1372°C	1.0°C
	N	-200°C~1300°C	1.0°C
	R	0°C~1767°C	1.5°C
	S	0°C~1767°C	1.5°C
	T	-250°C~400°C	1.5°C

B. General Specifications

item	Limitation & description
Power Supply	100V/120V/220V/240V ± 10%
Power Line Frequency	50/60 Hz ± 10%
Power Consumption	25 VA peak (5 W AVERAGE)
Operating Temperature	0 °C to 50 °C
Operating Humidity	Maximum relative humidity 80% for temperature up to 31 °C
Storage Temperature	- 40 °C to 70 °C
Operating Altitude	Up to 2000 M
Bench Dimensions (WxHxD)	214.6x88.6x280.7mm

⁷ The measurement accuracy excluded the error of test leads. And The M3511A doesn't support the thermocouple measurement.

Weight	2.23 KG
Safety¹	IEC61010-1:2001/EN61010-1:2001 (2 nd Edition) Measurement CAT II 600V, CAT I 1000V Pollution Degree 2
EMC	EN61326-1:2006, EN61326-2-1:2006
VIBRATION	MIL-PRF-28800F, 3.8.4.2 VIBRATION, SINUSOIDAL CLASS 1,2
SHOCK	MIL-PFR-28800F, 4.5.5.4 MECHANICAL
Warranty	One Year

¹ The LO jack is marked with 500Vpk against ground and SENSE HI to LO is only marked with 200Vpk, in opposition to the label of 600V CAT II and/or 1000V CAT I against ground and IEC 61010-1.