

FEATURES

- Dual LCD display
- Auto LCR smart check and measurement
- Series/Parallel modes are selectable
- Ls/Lp/Cs/Cp with D/Q/ θ /ESR parameters
- Support DCR mode 200,00 Ω ~200,0M Ω
- Five different test frequency are available: 100/120/1k/10k/100k Hz
- Test AC signal level: 0.6mVRMS typ.
- Test range: (ex. F=1kHz)
 - L: 200.00 μ H ~ 2000.0 H
 - C: 2000.0 pF ~ 2.000 Mf
 - R: 20.000 Ω ~ 200.0 M Ω
- Multi-level battery voltage detector
- Support Backlight & Buzzer sound driver
- Primary Parameters Display:
 - DCR:DC Resistance
 - Ls: Serial Inductance
 - Lp: Parallel Inductance
 - Cs: Serial Capacitance
 - Cp: Parallel Capacitance
 - Rs: Serial Resistance
 - Rp: Parallel Resistance
- Second Parameter Display:
 - θ Phase Angle
 - ESR: Equivalence Serial Resistance
 - D:Dissipation Factor
 - Q:Quality Factor

ACCURACY SPECIFICATION

- Measurement performed at the test socket.
- Measurements performed after correct open and short calibration.
- DUT and test leads must be properly shielded to guard if necessary.
- Q value is the reciprocal of DF.
- Accuracies based within 10% to 100% of full scale of range; values outside of range should be used as reference only.
- means parallel or series measurement mode.



INDUCTANCE @ TA =18 ~ 28°C

Frequency = 100 Hz/120 Hz

Range	Resolution	Lx Accuracy	DF Accuracy	Measurement Mode
20.000mH	1uH	1.5% ± 10d	1.5% ± 50d	Series
200.00mH	0.01mH	1.4% ± 15d	1.4% ± 50d	Series
2000.0mH	0.1mH	1.5% ± 15d	1.5% ± 50d	Series
20.000H	1mH	1.6% ± 10d	1.6% ± 50d	—
200.00H	0.01H	1.3% ± 10d	1.3% ± 50d	Parallel
2000.0H	0.1H	2.0% ± 15d	2.0% ± 50d	Parallel
20.000kH	0.001kH	2.5% ± 15d	2.5% ± 0d	Parallel

Frequency = 1kHz

Range	Resolution	Lx Accuracy	DF Accuracy	Measurement Mode
2000.0uH	0.1uH	1.3% ± 10d	1.3% ± 50d	Series
20.000mH	1uH	1.2% ± 10d	1.2% ± 50d	Series
200.00mH	0.01mH	1.2% ± 10d	1.2% ± 50d	Series
2000.0mH	0.1mH	1.5% ± 15d	1.5% ± 50d	—
20.000H	1mH	1.5% ± 15d	1.5% ± 50d	Parallel
200.00H	0.01H	2.0% ± 10d	2.0% ± 50d	Parallel
2000.0H	0.1H	2.5% ± 15d	2.5% ± 50d	Parallel

Frequency = 10kHz

Range	Resolution	Lx Accuracy	DF Accuracy	Measurement Mode
200.00uH	0.01uH	1.8% ± 10d	1.8% ± 50d	Series
2000.0uH	0.1uH	1.5% ± 10d	1.5% ± 50d	Series
20.000mH	1uH	1.2% ± 10d	1.2% ± 50d	Series
200.00mH	0.01mH	1.5% ± 15d	1.5% ± 50d	—
2000.0mH	0.1mH	2.0% ± 10d	2.0% ± 50d	Parallel
20.000H	1mH	2.5% ± 15d	2.5% ± 50d	Parallel

Frequency = 100kHz

Range	Resolution	Lx Accuracy	DF Accuracy	Measurement Mode
20.000uH	0.001uH	2.5% ± 10d	2.5% ± 50d	Series
200.00uH	0.01uH	1.5% ± 10d	1.5% ± 50d	Series
2000.0uH	0.1uH	1.3% ± 15d	1.3% ± 50d	Series
20.000mH	1uH	2.0% ± 15d	2.0% ± 50d	Parallel
200.00mH	0.01mH	2.5% ± 15d	2.5% ± 50d	Parallel

CAPACITANCE @ TA =18 ~ 28 °C
Frequency = 100 Hz/120 Hz

Range	Resolution	Cx Accuracy	DF Accuracy	Measurement Mode
20.000nF	1pF	2.5% ± 10d	2.5%± 50d	Parallel
200.00nF	0.01nF	1.2% ± 10d	1.2% ± 50d	—
2000.0nF	0.1nF	0.9% ± 10d	0.9% ± 50d	—
20.000uF	1nF	1.0% ± 15d	1.0% ± 50dSeries	
200.00uF	0.01uF	1.2% ± 10d	1.2% ± 50d	Series
2000.0uF	0.1uF	2.5% ± 10d	2.5% ± 50d	Series
20.00mF	0.01mF	5.0% ± 10d	5.0% ± 50d	Series

Frequency = 1kHz

Range	Resolution	Cx Accuracy	DF Accuracy	Measurement Mode
2000.0pF	0.1pF	3.5% ± 15d	3.5%± 50d	Parallel
20.000nF	1pF	1.0% ± 10d	1.0% ± 50d	—
200.00nF	0.01nF	0.9% ± 10d	0.9% ± 50d	—
2000.0nF	0.1nF	1.0% ± 10d	1.0% ± 50d	Series
20.000uF	1nF	1.2% ± 15d	1.2% ± 50d	Series
200.00uF	0.01uF	2.5% ± 10d	2.5% ± 50d	Series
2000uF	1uF	4.0% ± 20d	4.0% ± 50d	Series

Frequency = 10kHz

Range	Resolution	Cx Accuracy	DF Accuracy	Measurement Mode
200.00pF	0.01pF	3.0% ± 8d	3.0%± 50d	Parallel
2000.0pF	0.1pF	1.0% ± 10d	1.0% ± 50d	—
20.000nF	1pF	0.9% ± 10d	0.9% ± 50d	—
200.00nF	0.01nF	0.8% ± 10d	0.8% ± 50d	Series
2000.0nF	0.1nF	1.0% ± 8d	1.0% ± 50d	Series
20.000uF	1nF	2.0% ± 8d	2.0% ± 50d	Series
200.0uF	0.1uF	4.5% ± 15d	4.0% ± 50d	Series

Frequency = 100kHz

Range	Resolution	Cx Accuracy	DF Accuracy	Measurement Mode
200.00pF	0.01pF	2.5% ± 15d	2.5%± 50d	Parallel
2000.0pF	0.1pF	1.0% ± 8d	1.0% ± 50d	Parallel
20.000nF	1pF	1.8% ± 8d	1.8% ± 50d	Parallel
200.00nF	0.01nF	1.5% ± 10d	1.5% ± 50d	Series
2000.0nF	0.1nF	2.5% ± 15d	2.5% ± 50d	Series

RESISTANCE @ TA =18 ~ 28°C
Frequency = 100 Hz/120 Hz

Range	Resolution	Rx Accuracy
200.00Ω	0.01Ω	1.2% ± 10d
2.0000kΩ	0.1Ω	0.8% ± 5d
20.000kΩ	1Ω	0.9% ± 5d
200.00kΩ	0.01kΩ	0.7% ± 3d
2.0000MΩ	0.1kΩ	1.0% ± 5d
20.000MΩ	1kΩ	2.2% ± 10d
200.0MΩ	0.1MΩ	2.5% ± 10d

Frequency = 1kHz

Range	Resolution	Rx Accuracy
20.000Ω	1mΩ	1.2% ± 10d
200.00Ω	0.01Ω	0.8% ± 5d
2.0000kΩ	0.1Ω	0.8% ± 3d
20.000kΩ	1Ω	0.7% ± 3d
200.00kΩ	0.01kΩ	1.0% ± 5d
2.0000MΩ	0.1kΩ	1.5% ± 10d
20.000MΩ	1kΩ	1.8% ± 10d
200.0MΩ	0.1MΩ	6.0% ± 50d

Frequency = 10kHz

Range	Resolution	Rx Accuracy
20.000Ω	1mΩ	1.5% ± 10d
200.00Ω	0.01Ω	0.8% ± 10d
2.0000kΩ	0.1Ω	0.9% ± 5d
20.000kΩ	1Ω	0.8% ± 3d
200.00kΩ	0.01kΩ	1.0% ± 5d
2.0000MΩ	0.1kΩ	2.5% ± 10d
20.00MΩ	0.01MΩ	2.8% ± 10d

Frequency = 100kHz

Range	Resolution	Rx Accuracy
20.000Ω	1mΩ	2.3% ± 10d
200.00Ω	0.01Ω	1.5% ± 5d
2.0000kΩ	0.1Ω	0.8% ± 20d
20.000kΩ	1Ω	0.8% ± 20d
200.00kΩ	0.01kΩ	1.5% ± 10d
2.000MΩ	1kΩ	2.5% ± 30d



DC RESISTANCE @ TA = 18 ~ 28 °C

Frequency = 100Hz/120Hz/1kHz/10kHz/100kHz

Range	Resolution	Rx Accuracy
200.00Ω	0.01Ω	1.8% ± 10d
2.0000kΩ	0.1Ω	0.6% ± 20d
20.000kΩ	1Ω	0.6% ± 10d
200.00kΩ	0.01kΩ	0.5% ± 3d
2.0000MΩ	0.1kΩ	1.5% ± 5d
20.000MΩ	1kΩ	2.0% ± 5d
200.0MΩ	0.1MΩ	2.5% ± 5d

D VALUE ACCURACY @ TA = 18 ~ 28 °C

Freq. / Z	0.1- 1Ω	1-10Ω	10-100kΩ	100k-1MΩ	1M-20MΩ	20M-200MΩ
100/120Hz	±0.03	±0.01	±0.009	0.01	0.02	0.04
1kHz	±0.03	±0.01	±0.009	0.01	0.02	0.09
10kHz	±0.03	±0.01	±0.009	0.009	0.01	0.04
100kHz	±0.04	±0.03	±0.01	0.01	0.02	0.04

Q VALUE ACCURACY @ TA = 18 ~ 28 °C

Freq. / Z	0.1- 1Ω	1 - 10Ω	10 - 100kΩ	100k - 1MΩ	1M - 20MΩ	20M-200MΩ
100/120Hz	±0.65°	±0.36°	±0.23°	±0.45°	±0.65°	±1.35°
1kHz	±0.65°	±0.36°	±0.23°	±0.45°	±0.65°	±3.63°
10kHz	±0.65°	±0.36°	±0.23°	±0.45°	±1.35°	N/A
100kHz	±1.27°	±0.65°	±0.49°	±0.65°	±1.35°	

