ET4401 / ET4402 / ET4410 / ET4501 / ET4502 / ET4510

ET4400 / ET4500 Series Benchtop LCR Meter



OVERVIEW

The ET4400 and ET4500 series LCR meters are component parameter analysers designed on the automatic balance bridge principle. With a 10 Hz – 100 kHz test bandwidth, continuously adjustable frequency, 0.1 % basic measurement accuracy and a binning function, they provide accurate, complete measurement and analysis for most components and materials — widely used in product R&D, incoming component inspection and in-line production sorting.

FEATURES

- Measurement frequency up to 100 kHz, continuously adjustable in 1 Hz steps
- Test level 10 mV – 2000 mV, continuously adjustable in 1 mV steps
- Basic measurement accuracy 0.1 %
- Automatic component identification and measurement
- DC resistance (DCR) measurement function
- Electrolytic capacitor measurement mode
- Internal bias voltage output 0 mV – 1500 mV
- Data recording function (maximum, minimum, average)
- Automatic or locked measuring range
- Open-circuit and short-circuit calibration
- Comparator binning (5 bins) with alarm function
- 7-point list scan function
- 3.5-inch TFT LCD, 5-digit display
- Interfaces USB Device, RS232 and Handler; SCPI protocol supported
- System settings: Chinese or English language, buzzer and screen brightness configurable

SPECIFICATIONS

Item	ET4401	ET4402	ET4410	ET4501	ET4502	ET4510
Test frequency range	Up to 10 kHz	Up to 20 kHz	Up to 100 kHz	10 Hz – 10 kHz	10 Hz – 20 kHz	10 Hz – 100 kHz
Test frequency points	10 fixed points (100, 120, 200, 400, 800 Hz, 1, 2, 4, 8, 10 kHz)	12 fixed points (100, 120, 200, 400, 800 Hz, 1, 2, 4, 8, 10, 15, 20 kHz)	16 fixed points (100, 120, 200, 400, 800 Hz, 1, 2, 4, 8, 10, 15, 20, 40, 50, 80, 100 kHz)	User-defined frequency, continuously adjustable in 1 Hz steps		
Basic accuracy	0.1 %					
Display digits	Main parameter 5 digits · secondary parameter 5 digits					
Measurement parameters	Main: L / C / R / Z · secondary: X / D / Q / θ / ESR					
Measurement display range	L: 0 µH – 9999 H · C: 0 pF – 99.999 mF · R: 0 Ω – 99.99 MΩ					
Measurement display speed	2/s (slow) · 5/s (medium) · 10/s (fast)					
Internal bias	0 – 1500 mV, adjustable in 1 mV steps					
Test level	6 fixed levels (0.1 V, 0.3 V, 0.6 V, 1 V, 1.5 V, 2 V)			10 mV – 2000 mV, continuously adjustable in 1 mV steps		
Signal source output impedance	30 Ω, 100 Ω					
Calibration	Open-circuit calibration, short-circuit calibration					
Screening (tolerance) function	−100 % to +100 %, with fixed points at ±10 %, ±25 %, ±50 %					
Comparator binning	5 bins — 3 pass bins, 1 fail bin, 1 AUX bin					
Display	3.5-inch TFT LCD					
Dedicated test functions	DC resistance (DCR) measurement, electrolytic capacitor measurement					
Standard interfaces	RS232, USB Device, Handler					

ACCESSORIES

- **Standard:** three-core power cord (30A51) ×1, four-terminal Kelvin test cable (35A51) ×1 pair, dedicated fuses ×2, paper manual ×1, certificate of conformity ×1