

Synthesized In-Circuit LCR/ESR Meter



885



**SMD Probe
(included)**

Models 885 and 886

Synthesized In-Circuit LCR/ESR Meter

The Model 885 and 886 Synthesized In-Circuit LCR/ESR Meters are the first handheld meter of this type on the market, with a wide range of test frequencies up to 10 kHz for model 885 and 100kHz for model 886 many measurement parameters including Z, L, C, DCR, ESR, D, Q, and \emptyset as well. The 885 and 886 are designed for both component evaluation on the production line and fundamental impedance testing for bench-top applications. With a built-in direct test fixture, you can test the lead components very easily. The optional 4-wire test clip can give a convenient connection to larger components and assemblies with the accuracy of 4-wire testing. The LCR meters offer fast, reliable, and versatile testing at low cost, making the 885 and 886 the most advanced handheld LCR meters available on the market today.

Features:

- **Measurement parameters: Z, L, C, DCR, ESR, D, Q, and \emptyset**
- **Test conditions: 100Hz, 120Hz, 1kHz, 10kHz, 100kHz(model 886 only), 1Vrms, 0.25Vrms, 0.05Vrms**
- **0.5% basic accuracy**
- **Dual LCD display**
- **SMD Surface Mount Tweezer Probe included**
- **Very quick response, user friendly**
- **Fully auto/manual selection**
- **DC resistance measurement**
- **Rechargeable battery / AC powered**
- **Infrared RS-232 interface capability**

Software Features:

- **Go-No Go testing (component sorting)**
- **Remote bin (component grading)**
- **Remote operation**

Digital Mode Specifications

model

885, 886

| TEST SIGNAL | |
|--------------------|---|
| Frequency | 100Hz, 120Hz, 1kHz, 10kHz, 100kHz(model 886 only) |
| Frequency Accuracy | $\pm 0.1\%$ |
| Level | 1Vrms, 0.25Vrms, 0.05Vrms, 1Vdc (for DCR) |
| level Accuracy | $\pm 5\%$ |
| Output Impedance | 100 Ω , $\pm 5\%$ |

Measurement Range

| Impedance (Z): | Frequency | Max. | Min. | Best Resolution |
|------------------|-----------|---------------|---------------|-----------------|
| Impedance (Z): | DCR | 20M Ω | 0.1 Ω | 0.001 |
| | 100Hz | 20M Ω | 0.1 Ω | 0.001 |
| | 120Hz | 20M Ω | 0.1 Ω | 0.001 |
| | 1kHz | 20M Ω | 0.1 Ω | 0.001 |
| | 10kHz | 20M Ω | 0.1 Ω | 0.001 |
| | 100kHz | 20M Ω | 0.1 Ω | 0.001 |
| Capacitance (C): | Frequency | Max. | Min. | Best Resolution |
| Capacitance (C): | 100Hz | 15.92mf | 79.57pf | 0.001 |
| | 120Hz | 13.26mf | 66.31pf | 0.001 |
| | 1kHz | 1592 μ f | 7.957pf | 0.001 |
| | 10kHz | 159.2 μ f | 0.795pf | 0.001 |
| | 100kHz | 15.92 μ f | 0.795pf | 0.001 |
| Inductance (L): | Frequency | Max. | Min. | Best Resolution |
| Inductance (L): | 100Hz | 9999H | 159.2 μ H | 0.001 |
| | 120Hz | 9999H | 132.6 μ H | 0.001 |
| | 1kHz | 3183H | 15.92 μ H | 0.001 |
| | 10kHz | 318.3H | 1.592 μ H | 0.001 |
| | 100kHz | 31.83H | 0.159 μ H | 0.001 |

GENERAL

| | |
|------------------------|---|
| Operating Temperature | 32° to 104°F (0° to 40°C) |
| Storage Temperature | -4° to 158°F (-20° to 70°C) |
| Relative Humidity | up to 85% |
| Battery Type | Ni-MH or Alkaline (2 x AA size) |
| Battery Charge | Constant current 150mA approximately |
| Battery Operating Life | 2.5 hours typical |
| AC Operation | 110V/220V AC, 60/50Hz with proper adapter |
| Low Power Warning | under 2.2V |
| Dimensions (LxWxH) | 6.9 x 3.4 x 1.9" (175 x 86 x 48mm) |
| Weight | 1.1 lbs (470g) |

| RANGE | 20M Ω | 10M Ω | 1M Ω | 100k Ω | 10 Ω | 1 Ω |
|-----------|---------------|--------------|----------------|---------------|--------------|---------------|
| FREQ. | ~10M Ω | ~1M Ω | ~100k Ω | ~10 Ω | ~1 Ω | ~0.1 Ω |
| DCR | | | | | | |
| 100/120Hz | 2% \pm 1 | 1% \pm 1 | | | | |
| 1kHz | | | 0.5% \pm 1 | 0.2% \pm 1 | 0.5% \pm 1 | 1% \pm 1 |
| 10kHz | 5% \pm 1 | 2% \pm 1 | | | | |
| 100kHz | NA | 5% \pm 1 | 2% \pm 1 | 0.4% \pm 1 | 2% \pm 1 | 5% \pm 1 |

Accessories

Two Year Warranty

| | |
|-----------|---|
| SUPPLIED: | Instruction Manual, SMD Probe, Rechargeable Battery, AC Adapter |
| OPTIONAL: | TL-885B 4-wire test leads |
| | TL-08C 4-wire Kelvin test leads |
| | LC-29B Carrying Case |