LCR & RESISTANCE Meters

LCR Meter
HP 4263A

- 0.1% basic accuracy
- 100 Hz, 120 Hz, 1 kHz, 10 kHz, 100 kHz test frequencies
- 50 m, 100 m, 250 m, 500 m, 1 V rms test levels
- High-speed measurement: 25 ms
- High-speed contact check
- Quick test recovery
- Wide capacitance test range
- Front-end protection
- Built-in comparator
- Transformer parameter measurements (optional)

HP 4263A LCR Meter

The HP 4263A LCR meter is Hewlett-Packard's most cost-effective low-end LCR meter, designed for both component evaluation on the production line and fundamental impedance testing for bench-top applications. The EIP-262A has five test frequencies that allow you to simulate testing under the correct conditions: 100 Hz, 120 Hz, 1 kHz, 10 kHz, and 100 kHz. An additional 20 kHz test frequency can be added to those five frequencies (Opt 002).

High-Speed Measurements

The HP 4263A can boost throughput with a measurement speed of 25 ms at any test frequency. This ability improves the throughput of electrolytic capacitor and transformer testing. The HP 4263A can check the contact condition between the test terminals and the device under test (DUT). This function ensures the reliability of PASS/FAIL testing with automatic handling in production.

Electrolytic Capacitor Measurements

The HP 4263A's accuracy and wide measurement range are the right tools to simplify the use of electrolytic capacitors. Charged capacitors discharge through the front end and destroy an instrument. The HP 4263A's front end is designed for protection and maintains test integrity.

Transformer Parameter Measurements

With the HP 4263A's ability to measure turns ratio (N), mutual inductance (M), and dcr (de resistance) (DCR) measurements, data calculations and changing test setups are no longer time-consuming tasks. (Opt 001)

Specifications (Refer to data sheet for complete specifications.)

- Opt 001: Add DCR (de resistance), N (turns ratio), and M (mutual inductance) measurement
- Measurement circuit mode: Series and parallel
- Mathematical Functions: Deviation and percent deviation
- Ranging: Auto and manual
- Trigger: Internal, external, manual, and HP-IB
- Delay Time: 0 to 9999 ms in 1 ms steps
- Test Cable Length: 0 m, 1 m, 2 m, 4 m (freq = 100/120/1kHz); 5 m, 6 m, 8 m (freq = 50/20kHz); 10 m, 1 m, 0 m (freq = 1 kHz/10 kHz)
- Measurement Time: Short, medium, and long
- Averaging: 1 to 256
- Test Signal Information
- Test frequency: 10 Hz, 120 Hz, 1 kHz, 10 kHz, and 100 kHz
- Opt 002: Add 20 kHz test frequency
- Frequency accuracy: ±0.05% (freq = 100 Hz, 1 kHz, 10 kHz, 20 kHz, 100 kHz, ±1% (freq = 120 Hz)
- Output impedance: 100 Ω ±10%, 25 Ω ±10% (±1 Ω range)
- AC test signal level: 50 mV, 100 mV, 250 mV, 500 mV, and 1 V rms
- Accuracy: ±(10% + 10 mV)
- Internal dc bias: 1.5 and 2 V
- Measurement Accuracy: ±0.1% (basic) (for Z, R, X, Y, G, B, C, L)

Measurement Time

<table>
<thead>
<tr>
<th>Mode</th>
<th>Time (typical)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short</td>
<td>25 ms</td>
</tr>
<tr>
<td>Medium</td>
<td>65 ms</td>
</tr>
<tr>
<td>Long</td>
<td>500 ms</td>
</tr>
</tbody>
</table>

Front-End Protection: Internal circuit protection when a charged capacitor is connected to the input terminals. The maximum capacitance voltage is: Vmax = V (opt 001) typical @ Vmax ≤ 250 V; Vmax = V (opt 002) typical @ Vmax ≤ 1000 V.

Display: 5 digits (max)

Correction Function:

- Zero OPEN/SHORT: Eliminates measurement errors due to stray parasitic impedances in the test fixtures.
- Load: Improves measurement accuracy by using a calibrated device as a reference. Available only via HP-IB.
- Comparator Function: HIGH/IN/LOW for each primary measurement parameter and secondary measurement parameter.

Contact Check Function: Contact failure between the test fixture and device can be detected. Additional time for contact check: 5 ms.

- Save/recall: Ten instrument setups can be saved/recalled from the internal nonvolatile memory.
- Continuous memory capability: If the instrument is turned off, or a power failure occurs, instrument settings (except dc bias on/off) are automatically memorized (372 hours at 23° ±5°C).

HP-IB Interface: All control settings, measured values, and comparator information.

Key Information

- HP 4263A LCR Meter Data Sheet, p/n 5901-2144E
- LCR Meters, Impedance Analyzers and Test Fixtures Selection Guide, p/n 5952-1430

Ordering Information

<table>
<thead>
<tr>
<th>HP 4263A LCR Meter</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opt 000</td>
<td>$4,850.00</td>
</tr>
<tr>
<td>Add N/M/DCR</td>
<td>$750.00</td>
</tr>
<tr>
<td>Test Frequency</td>
<td>$250.00</td>
</tr>
<tr>
<td>Delectric Operation</td>
<td>$50.00</td>
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<tr>
<td>Extended Service</td>
<td>$90.00</td>
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</tbody>
</table>
- HP 10660A Transformer Test Fixture | $610.00 |
- HP 10665C External Bias Adapter (up to 40 Vdc) | $510.00 |
- HP 10689B Kelvin Clip Leads (1 m, 2 medium clips) | $550.00 |
- HP 106899 Kelvin Clip Leads (1 m, 2 medium clips) | $590.00 |
- HP 106896 Kelvin Clip Leads (1 m, 2 IC clips) | $650.00 |
- HP 10689D Alligator Clip Leads (1 m, 4 medium) | $480.00 |
- HP 10664B LED Display/Trigger Box (pass/fail display and trigger) | $370.00 |

For off-the-shelf shipment, call 800-452-4844.