IMPEDEANCE ANALYZER IM7583, IM7585

Component Measuring Instruments

IM7583
Measurement frequency
1 MHz to 600 MHz

IM7585
Measurement frequency
1 MHz to 1.3 GHz

High Speed
Measurement time: maximum 0.5ms
(Analog measurement time)

High Stability
Measured value variability: 0.07%
(When measuring at 1GHz with the IM7585)
High-speed, highly stable measurement

Ideal for common mode filter and chip inductor production lines

**IMPEDEANCE ANALYZER IM7583**

![Image of IM7583 instrument]

- Measurement frequency: 1MHz to 600MHz
- Measured parameters:
  - Repeatability (Z, 3CV): [%]
  - Analog measurement time: [ms]

**Graph showing repeatability and analog measurement time**

- Measurement freq.: 500MHz
- Signal level: +1dBm
- Device under test: 1nH

Perfect for R&D and production of ferrite chip beads and chip inductors

**IMPEDEANCE ANALYZER IM7585**

![Image of IM7585 instrument]

- Measurement frequency: 1MHz to 1.3GHz
- Measured parameters:
  - Repeatability (Z, 3CV): [%]
  - Analog measurement time: [ms]

**Graph showing repeatability and analog measurement time**

- Measurement freq.: 1GHz
- Signal level: +1dBm
- Device under test: 1nH
Measurement capabilities suited to a variety of production lines

For single-frequency pass/fail judgments:
[LCR mode]

For multiple-frequency pass/fail judgments:
[Analyzer mode : Spot judgment]

For pass/fail judgments based on frequency characteristics:
[Analyzer mode : Peak judgment]

For combined LCR + analyzer testing:
[Continuous measurement mode]

Functions, Features and Small Form Factor to Enable Efficient and Intelligent Measurement and Analysis

R&D applications

- Measure frequency characteristics and level characteristics
- Five-model equivalent circuit analysis
- Measured value search function

Contact check function (DCR measurement, Hi-Z reject)

Perform contact checks using DCR measurement on components such as inductors, ferrite cores, and common mode filters. The IM7585 can also perform contact checks using Hi-Z reject functionality for components such as capacitors. Both of these capabilities can be combined with a chatter detection check to deliver highly reliable measurements.

Half-rack dimensions and intuitive operability enhances productivity

The compact design lets you stack two units side-by-side to mount into a full-rack space so that you can use two Impedance Analyzers simultaneously to further streamline testing and increase production yield. Customize the brightness, color and viewing size of the large color display in order to accommodate the needs of your workspace, and use the convenient touch screen to achieve maximum work efficiency.

The bundled test head is also compact and unobtrusive, letting you set it as close to the device under test as possible in order to minimize noise and other adverse effects that can impact accuracy.
### Basic Specifications

<table>
<thead>
<tr>
<th>Measurement frequency</th>
<th>Frequency range: IM7583 1 MHz to 600 MHz IM7585 1 MHz to 1.3 GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement parameters</td>
<td>Z, Y, B, Rs, Rp, X, G, B, Cs, Cp, Ls, Lp, D, Q</td>
</tr>
<tr>
<td>Measurement level</td>
<td>-40.0 dBm to +1.0 dBm (4 mV to 502 mV)</td>
</tr>
<tr>
<td>Measurement time</td>
<td>As fast as 0.5 ms (Analog measurement time)</td>
</tr>
<tr>
<td>Measurement range</td>
<td>100 mΩ to 5 kΩ</td>
</tr>
<tr>
<td>Basic accuracy</td>
<td>Z: ±0.65% rdg. B: ±0.38° (representative value)</td>
</tr>
<tr>
<td>Power supply and maximum rated power</td>
<td>AC 100 V to 240 V (50 Hz / 60 Hz), 70VA</td>
</tr>
<tr>
<td>Dimensions and weight</td>
<td>Approx. 215W×200H×348D mm (8.46W×7.87H×13.7D in), Approx. 8.0 kg (282.3 oz)</td>
</tr>
<tr>
<td>Accessories</td>
<td>Power cord ×1, Instruction manual ×1, Impedance analyzer application disc ×1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measurement mode</th>
<th>LCR mode: Measurement using a single set of conditions Analyzer mode: Sweep measurement and equivalent circuit analysis Continuous measurement mode: Continuous measurement using previously saved conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCR mode</td>
<td>Bin measurement: 10 categories for 4 measurement parameters Comparator measurement: Hi, IN and Lo judgments for 4 parameters</td>
</tr>
<tr>
<td>Analyzer mode</td>
<td>Frequency/level sweep measurements (801 points) Time interval measurement</td>
</tr>
<tr>
<td>Continuous measurement mode</td>
<td>LCR mode: 30 conditions, Analyzer mode: 16 conditions</td>
</tr>
<tr>
<td>Contact check</td>
<td>DCR measurement, Hi-Z reject, Waveform judgment (chatter detection)</td>
</tr>
<tr>
<td>Interfaces</td>
<td>USB, LAN, GP-IB (optional), RS-232C (optional) These interfaces support programming commands used with the HIoki Model 3535 LCR HiTester. Handler, USB memory</td>
</tr>
</tbody>
</table>

### Instrument

- **IMPEDANCE ANALYZER IM7583-01** *(Order code: IM7583-01)*
  - Main unit composition: IM7583, Test Head, Connection cable (1m)

- **IMPEDANCE ANALYZER IM7583-02** *(Order code: IM7583-02)*
  - Main unit composition: IM7583, Test Head, Connection cable (2m)

- **IMPEDANCE ANALYZER IM7585-01** *(Order code: IM7585-01)*
  - Main unit composition: IM7585, Test Head, Connection cable (1m)

- **IMPEDANCE ANALYZER IM7585-02** *(Order code: IM7585-02)*
  - Main unit composition: IM7585, Test Head, Connection cable (2m)

Test fixtures or probes are not included with the main unit. A dedicated test fixture is required. For more information, please contact your HIoki distributor.

### Options

#### Interfaces

- GP-IB INTERFACE Z3000
- GP-IB CONNECTION CABLE 9151-02
  - Cable length: 2 m (6.56 ft)
- RS-232C INTERFACE Z3001
- RS-232C CABLE 9637
  - Cable length: 1.8 m (5.91 ft)

*Any interlink-compatible cross-cable can be used as the RS-232C CABLE."

Test fixtures and associated options: Available soon

- **TEST FIXTURE STAND IM9200**
- **ADAPTER IM9906 (3.5 mm to 7 mm)**
- **SMD TEST FIXTURE IM9201**

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