The 7600 Plus LCR meter performs precision impedance measurement over a frequency range of 10 Hz to 2 MHz. This instrument can measure 14 different impedance parameters with 0.05% accuracy, meeting today’s requirements for component and material testing. User-friendly menu-driven programming makes the 7600 Plus ideal for applications in product development, incoming inspections, and production-line testing.

**Features:**
- Frequency range: 10 Hz to 2 MHz
- 0.05% basic measurement accuracy
- 7-digit measurement resolution
- Programmable test voltage and current
- Auto ranging
- Test setup and measurement data storage
- Four bnc terminal Kelvin connection
- Standard interfaces: USB host port, RS-232, Handler, Parallel printer port
- Optional interface: IEEE-488.2
- Graphical and tabular display of measurements: swept frequency, voltage, and current
- Sequence testing of up to 6 individual tests
- Load correction
- Binning (15)
- Built-in auto-calibration routine

**14 Different Impedance Parameters**
Measure and display any two parameters simultaneously to achieve coverage and flexibility.

**Automated Test Sequencing**
Run up to six different tests in sequence with a single push of the start button. Each test can have different conditions and limits.

**Swept Measurements**
To test how components respond to changes in ac test frequency, voltage, or current, the 7600 Plus meter offers fast, accurate swept parameter measurements with results in graphical and tabular format. No complex programming or external control is required.

**Program and Data Storage**
Test setups can be stored and recalled from either internal memory or from a standard USB flash drive.
Measurement data can be stored on a USB flash drive in CSV format.

**Load Correction**
Substantially improves instrument accuracy by measuring a known standard and applying correction to subsequent measurements. This is ideal for repetitive testing of identical devices under similar conditions.

**Automated Calibration Procedure**
The 7600 Plus has a built-in calibration procedure, which can be performed using the SI traceable calibration kit (7000-09). The results and the date of the calibration are stored internally.

**Ease of Use**
To ensure that the 7600 Plus is easy to operate, the unit offers a large LCD display and a user-friendly, menu-driven interface.
**SPECIFICATIONS**

**Measurement accuracy**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measurement/Display Range</th>
<th>Basic Accuracy Low</th>
<th>Basic Accuracy Medium</th>
<th>Basic Accuracy High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ls, Lp</td>
<td>000.001 nH to 99.999 99 H</td>
<td>±0.5%</td>
<td>±0.25%</td>
<td>±0.05%</td>
</tr>
<tr>
<td>Cs, Cp</td>
<td>00.000.01 F to 9.999 999 F</td>
<td>±0.5%</td>
<td>±0.25%</td>
<td>±0.05%</td>
</tr>
<tr>
<td>Z, Rs, Rp, ESR, Xs</td>
<td>00.000.001 to 99.999 999 Ω</td>
<td>±0.005</td>
<td>±0.0025</td>
<td>±0.0005</td>
</tr>
<tr>
<td>Q</td>
<td>0.000 001 to 999,999.9  Ω</td>
<td>±0.005</td>
<td>±0.0025</td>
<td>±0.0005</td>
</tr>
<tr>
<td>D</td>
<td>0.000 001 to 9999.9</td>
<td>±0.005</td>
<td>±0.0025</td>
<td>±0.0005</td>
</tr>
<tr>
<td>Θ</td>
<td>-180.000 0° to +179.999 9°</td>
<td>±1.8°</td>
<td>±0.9°</td>
<td>±0.18°</td>
</tr>
<tr>
<td>Y, Gp, Bp</td>
<td>0.000.001 μS to 9.999 99 MS</td>
<td>±0.5%</td>
<td>±0.25%</td>
<td>±0.05%</td>
</tr>
</tbody>
</table>

Basic Accuracy is based upon ideal frequency and impedance. For more detailed accuracy information, see 7600+ instruction manual.

Any two of the 14 parameters can be measured and displayed simultaneously (user-selectable).

**Measurement speed**

<table>
<thead>
<tr>
<th>Speed</th>
<th>Accuracy Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast</td>
<td>120 meas/sec</td>
</tr>
<tr>
<td>Medium</td>
<td>16 meas/sec - 8 meas/sec below 150 kHz</td>
</tr>
<tr>
<td>Slow</td>
<td>2 meas/sec - 1 meas/sec below 150 kHz</td>
</tr>
</tbody>
</table>

The speed may be slower depending on test conditions and frequency settings.

**Calibration**

Built-in automatic calibration procedure
IET offers complete, SI traceable calibration using the 7000-09 cal kit
Recommended calibration interval: 1 year

**Usage and calibration data**

Displays last calibration date, standard values used in calibration, and number of hours of operation

**Contact check**

Time to detect, 2 ms

**Connection terminals**

Four bnc connectors located on the front panel

**Mechanical**

Dimensions: 41 cm W x 15 cm H x 36 cm D (16” x 6” x 14”)
Weight: 8 kg (17 lbs)

**Environmental Conditions**

Operating temperature: 0 to 50°C, <75% RH
for 11°C to 30°C
Storage temperature: -10 to 60°C
Altitude: <2000 m

**Power**

90 to 250 Vac
47 - 63 Hz
100 W max

**Safety**

IEC61010-1: 2001
CAT 1, pollution degree 2

**EMC**

89/336/ECC, 92/31/ECC, 93/68/ECC

**Environmental:**

This product complies with the WEEE Directive (2002/96/EC) marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste.

Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as a “Monitoring and Control instrumentation” product.
ORDERING INFORMATION

7600 Plus Meter Standard Set:
- Precision LCR Meter
- AC Power Cord
- Instruction Manual
- Calibration Certificate traceable to SI
- Flash drive, 2 GB

OPTIONAL ACCESSORIES:

Remote Test Fixture 1689-9600
Kelvin Test Leads 1700-03
IEEE Interface Option 7000-23
SMD Test Fixture 7000-07
bnc-bnc Extender Cable, 1 m 1689-9602
bnc-bnc Extender Cable, 2 m 1689-9602-2
Chip Component Tweezers 7000-05
Calibration Kit 7000-09
Alligator Clip Leads 7000-04
Also available:
- Rack Mount Kit 7000-00
- RS232-to-USB Adapter 630250