

MODEL 3525

IMPEDANCE MEASUREMENT INSTRUMENTS

- 0.08% Basic Accuracy
- Fast - 15mS Measurement Speed
- Compact Size
- Easy to Use
- Manual or Automated Operation
- Better than Agilent at half the price
- 99 Storable Panel Settings
- Built in Comparator Function with External Buzzer
- Highly Visible, Dual, 4 1/2-Digit LED Displays
- Voltage & Current Monitors
- Standard RS232 & I/O Connectors
- Optional GPIB or BCD Interfaces
- 3-Year Warranty

General-Purpose Programmable LCR Meter

Inexpensive, Powerful and Compact Programmable LCR Meter

The Model 3525 is TEGAM's ultimate solution for applications that require low-cost, high-accuracy impedance parameter testing. Its amazingly flexible design allows it to accommodate a diverse range of testing applications including testing of capacitors, inductors, coils, resistors, materials, thermoelectric cooling devices, piezo-electric sensors and other sensors or components. The instrument is ideal for manual or automated operation.

Nine AC Measurement Parameters

Up to 9 impedance parameters are easily viewed on each of the 3525's two 4 1/2-digit LED displays.

Display A provides accurate and repeatable readings of Inductance (L), Capacitance (C), Resistance (R), or Impedance ($|Z|$) at a basic accuracy of 0.08%!

Display B indicates measurement values for Dissipation Factor (D or Tan δ), Quality Factor (Q), Phase Angle (ϕ), Measurement Voltage (V) or Measurement Current (I).

All parameters are selectable from the front panel and may be measured as Series or Parallel equivalents.

Compact

The 3525's Compact Size is unprecedented and allows side-by-side mounting in standard 19" racks. It measures less than 8" X 4" X 7" (WxHxD) and weighs 5 1/2 pounds. But don't let its size fool you; the 3525 is packed with functionality and value.

Easy to Use

The 3525's intuitive design and user friendliness was implemented as a design specification. Anyone can use this device and begin taking accurate and repeatable readings immediately. The easy-to-use front panel makes instrument operation totally intuitive. There is no need to search hidden submenus to find the instrument's settings. All settings are indicated on the front panel with high visibility LEDs.

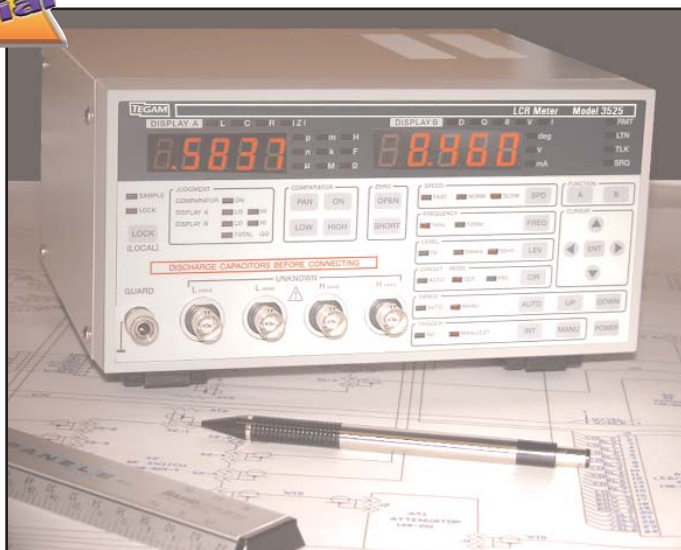
Comparator with External Buzzer

A built in NO-GO comparator function makes the 3525 an ideal choice for manual verification of component values for QA or manufacturing. An audible beeper increases efficiency by eliminating the need for the user to read the display. Total test time and operator errors are significantly reduced. A front panel lock feature prevents accidental changes of instruments settings.

High Performance at a Low Cost

No other LCR meter has the performance density of the 3525. This innovative solution for cost-sensitive LCR applications is accurate and fast in manual or automated applications. The 3525 performs basic LCR measurements better than Agilent's "most cost effective solution," at less than half its price. The Model 3525 is backed by a full 3-year warranty and TEGAM's 30-day no risk trial. If for any reason you are not satisfied with the performance of the instrument, you can return it for a full refund.

**FREE
30 Day
Trial**



MODEL 3525 Specifications

Comments:

Measurement Parameters	L (Inductance) C (Capacitance) R (Resistance) Z (Impedance) D (Dissipation Factor / Tan Delta) Q (Quality Factor) θ (Phase Angle) V (Inter-Terminal Voltage) I (Inter-Terminal Current)	L ► 1.6000 μ H - 199.99kH C ► 0.9400pF - 199.99mF R ► 0.0100 Ω - 199.99M Ω Z ► 0.0100 Ω - 199.99M Ω D ► 0.0001 - 19.999 Q ► 0.5 - 199.99 θ ► -180.00° - +180.00° V ► 0.00V - 1.00V I ► 0.00mA - 10.00mA														
Measurement Ranges	Ten Programmable Ranges															
Typical Basic Accuracy	0.08%	Dependent Upon Test Variables and Measured Impedance														
Measurement Frequency	1kHz, 120 Hz	\pm 0.01% Frequency Accuracy														
Output Impedance	100 Ω \pm 10 Ω															
Output Amplitude	50mV, 500mV, 1.00V	\pm (10% + 10mV) Programmable Test Voltage														
Maximum Short Circuit Current	10mA															
Measurement Ranges	0.1 Ω - 100M Ω	10 Ranges - Auto or Manual Modes														
	<i>NOTE: Measurement Ranges are based on Z . Values other than Z are calculated values.</i>															
Measurement Modes	Series or Parallel Equivalent Circuit	Auto or Manually Selected														
Displays	Dual - High Visibility, 4 1/2-Digit LED Displays															
Measurement Speed	<table border="1"> <thead> <tr> <th rowspan="2">MODE</th> <th colspan="2">MEASUREMENT FREQUENCY</th> </tr> <tr> <th>120 Hz</th> <th>1kHz</th> </tr> </thead> <tbody> <tr> <td>FAST</td> <td>40mS</td> <td>15mS</td> </tr> <tr> <td>NORMAL</td> <td>90mS</td> <td>50mS</td> </tr> <tr> <td>SLOW</td> <td>360mS</td> <td>250mS</td> </tr> </tbody> </table>	MODE	MEASUREMENT FREQUENCY		120 Hz	1kHz	FAST	40mS	15mS	NORMAL	90mS	50mS	SLOW	360mS	250mS	<i>NOTE: Measurement speed is determined by a number of factors. These are calculated measurement times based on instrument measurement mode and test frequency. There are three user-selectable measurement speeds.</i>
MODE	MEASUREMENT FREQUENCY															
	120 Hz	1kHz														
FAST	40mS	15mS														
NORMAL	90mS	50mS														
SLOW	360mS	250mS														
Trigger	Internal and External Triggering Panel, or through rear mounted user interfaces.	External Triggering is achieved through the Front Panel.														
Measurement Terminals	5 Terminal, Kelvin Guard Binding Post	Configuration: BNC Connectors for Kelvin and a Guard Binding Post														
Zero Offset	Open (>1k Ω) or Short Circuit (<1k Ω) Null															
Comparator	HI-GO-LO	Dual Comparator Functions for A & B Displays														
External Buzzer	Set for PASS/FAIL of Comparator Functions															
Stored Settings	99 Stored instrument Settings	May be stored or recalled through the front panel or remote interface.														
Front Panel Key Lock	User is able to lock the front panel to prevent accidental bumping of the front panel keys.															
User Interfaces	CONTROL Output RS-232C GPIB (IEEE-488) BCD Interface	(I/O Port Standard) Standard Optional PN# 3501 Optional PN# 3502														
Safety	Conforms with IEC 61010-1	CE Marked														
Operating Environment	32° - 104°F (0 - 40°C) @ <80% RH Non-Condensing	Double the measurement errors for conditions outside of this range.														
Storage Environment	14° - 131°F (-10 - 55°C) @ <80% RH Non-Condensing															
Power Requirements - User Selectable	100, 120, 220, & 240 VAC @ 50/60 Hz	Consumption: 20VA \pm 10%														
Dimensions	7.88" X 3.94" X 6.70" (200 X 100 X 170 cm)	W X H X D														
Weight	5.5lb (2.5 kg) Approximate Weight Standard Unit															
Included Accessories	Operation Manual Kelvin Klips Grounded Power Cord	PN # 3525-900-01CD PN # 47454 PN # 161006600														
Options	Radial Lead Adapter Chip Tweezers Chip Test Fixture BCD Interface GPIB IEEE-488 Interface	PN # 3510 PN # 2005B PN # 3511 PN # 3502 PN # 3501														

This data sheet was current when it was produced. However, products are constantly being updated and improved. Because of this some differences may occur between the descriptions herein and the current product. Prices and specifications may be changed without notice.



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