Model 3525

IMPEDANCE MEASUREMENT INSTRUMENT

- 0.08 % Basic Accuracy
- Fast - 15 mS Measurement Speed
- Compact Size
- Easy to Use
- Manual or Automated Operation
- 99 Storable Panel Settings
- Built in Comparator Function with External Buzzer
- Highly Visible, Dual, 4-1/2 Digit LED Displays
- Voltage & Current Monitors
- Standard RS-232C & I/O Interfaces
- Optional GPIB or BCD Interfaces
- 3-Year Warranty

General-Purpose 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 (θ), 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 in. racks. It measures less than 8 in X 4 in X 7 in (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 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 GO/NO-GO comparator 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 full credit within 30 days.

Prices and specifications subject to change without notice.

TEGAM®

YOUR GLOBAL SOURCE FOR TEST AND MEASUREMENT SOLUTIONS

Model 3525

GENERAL-PURPOSE PROGRAMMABLE LCR METER

Specifications

Measurement Parameters		
	L (Inductance)	L ➢ 1.6000 µH - 199.99 kH
	C (Capacitance)	C ➢ 0.9400 pF - 199.99 mF
	R (Resistance)	R ➢ 0.0100 Ω - 199.99 MΩ
	|Z| (Impedance)	|Z| ➢ 0.0100 Ω - 199.99 MΩ
	D (Dissipation Factor / Tan Delta)	D ➢ 0.0001 - 19.999
	Q (Quality Factor)	Q ➢ 0.5 - 199.99
	θ (Phase Angle)	θ ➢ -180.00º - +180.00º
	V (Inter-Terminal Voltage)	V ➢ 0.00 V - 1.00 V
	I (Inter-Terminal Current)	I ➢ 0.00 mA - 10.00 mA
Measurement Ranges	Ten Programmable Ranges	
Typical Basic Accuracy	0.08 %	Dependent Upon Test Variables and Measured Impedance
Measurement Frequency	1 kHz, 120 Hz	±0.01 % Frequency Accuracy
Output Impedance	100 Ω ± 10 Ω	
Output Amplitude	50 mV, 500 mV, 1.00 V	± (10 % ± 10 mV) Programmable Test Voltage
Maximum Short Circuit Current	10 mA	
Measurement Ranges	0.1 Ω - 100 M Ω NOTE: Measurement Ranges are based on |Z|. Values other than |Z| are calculated values.	10 Ranges - Auto or Manual Modes
Measurement Modes	Series or Parallel Equivalent Circuit	Auto or Manually Selected
Displays	Dual - High Visibility, 4-1/2 Digit LED Displays	
Measurement Speed		*NOTE: Measurement speed is determined by a number of factors. These are calculated measurement times based on instrument measurement mode and test frequency. There*

MODE / MEASUREMENT FREQUENCY	120 Hz	1kHz
FAST	40mS	15mS
NORMAL	90mS	50mS
SLOW	360mS	250mS

Trigger	Internal and External Triggering	External Triggering is achieved through the Front Panel, or through rear mounted user interfaces.
Measurement Terminals	5 Terminal, Kelvin	Configuration: BNC Connectors for Kelvin and a Guard Binding Post
Zero Offset	Open (>1 kΩ) or Short Circuit (<1 kΩ) 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 I/O Connector	Standard
	RS-232C	Standard
	GPIB (IEEE-488)	Optional P/N 3501
	BCD Interface	Optional P/N 3502
Safety	Conforms with IEC 61010-1	CE Marked
Operating Environment	+32 ºF to +104 ºF (0 to +40 ºC) @ <80 % RH Non-Condensing	Double the measurement errors for conditions outside of this range.
Storage Environment	-10 ºC to +55 ºC (+14 ºF to +131 ºF) @ <80 % RH Non-Condensing	
Power Requirements - User Selectable	100, 120, 220, & 240 VAC @ 50/60 Hz	Consumption: 20 VA ± 10 %
Dimensions	20 X 10 X 17 cm (7.88 in X 3.94 in X 6.70 in)	W X H X D
Weight	2.5 kg (5.5 lb)	Approximate Weight Standard Unit
Included Accessories	Operation Manual CD	P/N 3525-900-01CD
	Kelvin Klips	P/N 47454
	Grounded Power Cord	P/N 161006600
Optional Accessories	Radial Lead Adapter	P/N 3510
	Chip Tweezers	P/N 2005B
	Chip Test Fixture	P/N 3511
	BCD Interface	P/N 3502
	RS-232 Null Modem Cable	P/N 740565-6
	GPIB (IEEE-488) Interface	P/N 3501
	3525 WITHOUT Kelvin Klips	P/N 3525-NKK
	Z540 Compliant Calibration for 3525 with Certificate and Data	P/N OPT-Z540

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