

TRUE RMS RF MILLIVOLTMETER MODEL 9302

Frequency Range 10kHz to 1.5GHz

True RMS Measurement from 100 μ V to 300V

Exceptional Accuracy

Residual Noise less than 20 μ V

Read/Hold Capability

Remotely Programmable



SPECIFICATION

RF Input

Voltage Ranges: 1mV to 3V true rms full scale in 8 switchable ranges.

Frequency Range: 10kHz to 1.5GHz (usable as an indicator to 2GHz).

Accuracy (Using internal 50 ohm termination \pm (full scale + reading)).

20°C to 25°C	$\pm 1\% \pm 1.5\%$	$\pm 1\% \pm 6.5\%$	$\pm 1\% \pm 11.5\%$
0°C to 40°C	$\pm 3\% \pm 2\%$	$\pm 3\% \pm 7\%$	$\pm 3\% \pm 12.5\%$
10kHz	500MHz	1GHz*	1.5GHz*

*With use of calibration chart above 500MHz

Input Impedance

Probe: 100kohm/ $<$ 3pF.

Probe with Isolator Tip: 100kohm/ $<$ 10pF.

Internal Terminated

Input: 50ohm

VSWR: 1:1.1 up to 800MHz.

Probe Maximum Input: 100V DC + 20V p-p AC

crest Factor: $>$ 12dB at full scale on all ranges, up to 1 volt, increasing inversely for readings below full scale, e.g. 18dB at half scale.

Meter

Response

Slow: $<$ 3 seconds to final value with zero to full scale step.

Fast: $<$ 1 second to final value with zero to full scale step.

Jitter: $<$ 1% with meter response in low.

Hold Accuracy: 0.5% for 3 minutes.

General

Power Requirements

Voltage: 94 to 130V and 188 to 260 VAC.

Frequency: 45-40Hz

Floating: 8 VA.

Environmental: In accordance with recommendations of IEC 68.

Specification:

Operating: 0°C to +55°C

Temperature Range:

Storage: -40°C to +70°C

Temperature Range:

Humidity: 85% RH at +40°C.

Safety Standard: Designed to meet IEC 348 recommendations.

Dimensions: 121H x 241W x 32SD mm

Weight:

Net: 3.9kg.

Shipping: 7.0kg.

As 9302 except:

Also scaled in dBm and dBV

Digital Readout with Analogue Trend Bar

Extensive GPIB Option

Auto ranging option

SPECIFICATIONS

As 9302 except:

Voltage Ranges: 1mV to 3V true rms full scale in 8 switchable ranges

-47dBm to +23dBm; -60dBV to +10dBV.

(N.B. dBm measured in a 50 ohm system).

Frequency Range: 10kHz to 1.0GHz (usable as an indicator to 1.5GHz).

Input Impedance

Through-load

Adaptor: 50 ohm nominal

VSWR 1:1.1 to 800MHz, 1:2.1 800MHz to 1GHz.

TRUE RMS RF MILLIVOLTMETER MODEL 9302D

Input Impedance (cont'd.)

Probe with Isolator

Tip: 100kohm/ $<$ 10pF.

Probe: 100 kohm/ $<$ 3pF.

Maximum Input:

Probe: 100V DC + 0V peak AC.

Through-load

Adaptor: 4V (DC + AC RMS sine), 5V peak AC.

Option 55

GPIB Interface:

The interface conforms to IEEE-488-1978 (including IEEE-488-1980) and IEC-625-1 specifications, with code and format as guided by IEEE-728-1982 and IEC-625-2.

All front panel functions are duplicated by the GPIB except:

LINE ON/OFF, READ/HOLD, FAST/SLOW RESPONSE, CALIBRATION POT.

Programming

Control:

Option 56

Autorangeing:

Enables autorangeing in both manual and GPIB modes.