

Distortion Analyzer

Model 7600

- 3% FS Accuracy
- 0.001% Resolution
- 10Hz to 600kHz Frequency Response
- Hi Resolution Color Display
- Isolated Input
- IEEE-488, USB
- Distortion readings to almost 100%.



HIGH PERFORMANCE

The Model 7600 Distortion Analyzer is unlike any other product of its kind on the market. Using the latest digital techniques and optimally designed analog front end, the Model 7600 out-performs any other distortion analyzer on the market today. It also does this at a remarkably low cost. The unit automatically selects the proper range for both amplitude and percent distortion and is wave-shape independent. The user only needs to connect one input cable to obtain a distortion reading. Voltage Over-range or Under-range is indicated when the signal is too large or too small. The Model 7600 is galvanically isolated from ground.

For highly distorted signals (greater than approx. 80%) the user can input the frequency of operation and the instrument will lock on to that frequency and display the distortion reading.

The Model 7600 replaces many older distortion analyzers.

IEEE-488 AND USB INTERFACE STANDARD

The Model 7600 Distortion Analyzer has an IEEE-488 interface and USB as standard features. Via these interfaces the user can read the display, select input filtering and input the desired frequency (as needed).

ROBUST INPUT PROTECTION

Unique input protection circuitry allows for the sudden application of high input voltages without fear of damage. There is no need to slowly increase the levels of input voltages.

FLOATING INPUT

The input of the Model 7600 is not connected to chassis ground; hence measurements may be made on networks with "earth ground" connections without creating ground loops with their resultant common mode errors. Very high common mode rejection is achieved via a fully galvanically isolated front end.

SPECIFICATIONS

Fundamental Frequency Range	10 Hz to 600 kHz
Distortion Measurement Range	0.1% to 100%
Voltage Input Range	0.3 to 200V
Resolution	0.001%

Distortion Accuracy

Range	10Hz - 600kHz	30 Hz – 300 kHz
100% to 0.3%	±3% of Full scale	-
0.1%	±6% of Full scale	±3% of Full scale

Full scale distortion ranges are: 0.1%, 0.3%, 1%, 3%, 10%, 30%, and 100%

Voltage Accuracy

Range	±2%	±5%
0.3V – 30V	10 Hz – 1 MHz	1 MHz – 3 MHz
30V – 200V	10 Hz – 300kHz	300 kHz – 500 kHz

Instrument Induced Distortion	5Hz to 200kHz :	-70 dB
	200kHz to 600kHz:	-64 dB
Second Harmonic Accuracy for a fundamental of:	10 Hz to 20 Hz	±1 dB
	20 Hz to 20 kHz	±0.6 dB
	20 kHz to 100 kHz	±1 dB
	100 kHz to 300 kHz	+1 dB, -2 dB
	300 kHz to 600 kHz	+1 dB, -3 dB
Max input	200Vrms	
Input impedance	>110 kΩ <70pF	
Coupling	AC	
Frequency Accuracy	0.1%	
Residual Noise	25 uV	
350 Hz High Pass Filter	350 Hz ±35 Hz Third order Butterworth; 60 dB/decade	
80 kHz Low Pass Filter	80 kHz ±8 kHz Third order Butterworth; 60 dB/decade	

General

Display	4.3" High Resolution Color TFT
Digital Interface	IEEE-488.2, USB
Size	Approximately 17" W x 3.5" H x 13" D
Temperature range	Operating: 0° to 40°C Within specification: 23°C ± 5°
Humidity	Within specification: 20% to 50% RH noncondensing
Storage Environment	Temperature Range: 0° to 50°C Humidity Range: 15% to 80% RH noncondensing
Weight	Approximately 13 pounds
Power supply	100V, 120V, 220V, 240Vrms, 47Hz to 63Hz, 30VA max.
Warranty	1 year

