

Distortion and Level Meter



Features

- ★ Distortion Measurement for Frequency Range 30Hz to 300KHz
- ★ Distortion Level 0.3% to 100% FSD
- ★ High Fundamental Rejection Capabilities
- ★ Low Residual Distortion
- ★ Minimum Input Level for Distortion Measurement, 300mV rms for 100% Set Level
- ★ Level Meter Range from 1mV to 300V rms Full Scale
- ★ Frequency Response upto 3MHz
- ★ O/P BNC Terminal for Monitoring Fundamental Freq. waveform & Distortion on Oscilloscope

Description

APLAB's Distortion & Level Meter Model 2007 are versatile instruments useful for testing audio & communication equipments.

Harmonic distortion is one of many types of distortions created in audio and communication equipments. Harmonic related frequencies caused by non linear elements in amplifiers, create a poor distorted signal to the listener. Aplab's Distortion & Level Meter Model 2007 help to measure the total of this distorted frequency components present in the signal, quickly and very easily in a frequency range of 30Hz to 300KHz. Thus it is used as an ideal test equipment in electronics labs & in production test setup. It can also be used as an AC voltmeter for general purpose voltage & gain measurements over a wide range of level & frequency.

The accuracy of distortion mode & very low measurements upto 0.3% are the features which make the instrument very useful in harmonic distortion measurement application.

Specifications

DISTORTION METER

Range	:	From 0.3% to 100% full scale in six ranges of 0.3, 1, 3, 10, 30 & 100%.
Frequency Range	:	30Hz to 300KHz in eight ranges.
Input Level	:	300mV to 10V max.
Input Impedance	:	Approx. 600 ohms or 10K ohms (HI) unbalanced.
Filter Characteristics (Second Harmonic Accuracy)	:	Better than ± 0.6 dB for fundamental freq. range of 30Hz to 300Hz. Better than -0.8dB for fundamental freq. range of 300Hz to 3KHz. Better than -1dB for fundamental freq. range of 3KHz to 30KHz. Better than -2dB for fundamental freq. range of 30KHz to 100KHz. Better than -3dB for fundamental freq. range of 100KHz to 300KHz.
Distortion Introduced	:	< 0.05%.
Meter Indication	:	Proportional to average value of the waveform.
Dial Calibration Accuracy	:	Better than $\pm 3\%$ from 300Hz to 300KHz. Better than $\pm 5\%$ from 30Hz to 300Hz.

LEVEL MEASUREMENT

Voltage Range	:	From 1mV to 300V full scale in twelve ranges in 1-3-10 sequence.
dB Range	:	+50dBm to -60dBm in 12 ranges of 10dB steps.
Accuracy of Indication	:	Within $\pm 3\%$ of f.s.d. at 10KHz.
Frequency Range	:	20Hz to 3MHz.
Frequency Response	:	<i>1mV to 30mV ranges :</i> ± 0.3 dB from 30Hz to 1MHz. ± 0.5 dB from 20Hz to 30Hz & 1MHz to 3MHz. <i>100mV to 3V ranges :</i> ± 0.5 dB of f.s.d. from 30Hz to 500KHz ± 1 dB of f.s.d. from 20Hz to 30Hz & 500KHz to 3MHz. <i>10V & above ranges :</i> ± 0.5 dB of f.s.d. from 20Hz to 100KHz
Meter Calibration	:	The meter circuit is average reading type, calibrated in rms value for sinewave input. Two linear voltage scales provided are 0 to 3V and 0 to 10V. The dB scale is calibrated from -20dB to +2dB.
Input Impedance	:	Approx. 10M ohms // 40pF nominal.
Residual Noise	:	<-80dB & <0.05mV
Output	:	130mV rms $\pm 10\%$ for full scale deflection at 10KHz.
Output Impedance	:	Approx 2.2K ohms.

GENERAL

Power	:	230V AC $\pm 10\%$, 47-53Hz. Optional 115V AC $\pm 10\%$, 57-63Hz.
Dimensions	:	420 (W) x 145 (H) x 235 (D) mm approx.
Weight	:	4.3 Kg. approx.
Standard Accessories	:	Instruction Manual - 1 No. BNC(M) to BNC(M) Cable - 1 No. BNC(M) to Alligator Clip - 1 No. Mains Cord - 1 No.

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