

# True RMS A.C. Millivoltmeter ACM-102/103



- | Measures True RMS Voltage
- | Accuracy 1%
- | High Input Impedance
- | High Stability
- | Excellent Linearity

## Applications

Measurement of low signal like microphone outputs e.g. in r.m.s. sound level monitoring

Amplifier frequency response well beyond audio ranges

RMS voltage measurement of modulated signals

Power measurements with external standard resistance

**ACM-102:** True RMS A.C. Millivoltmeter, ACM-102 is based on AD536. This is a completely monolithic integrated circuit which performs *true rms-to-dc conversion of any waveform*. The true rms value of a waveform is more useful quantity than average rectified value, since it relates directly to the power of the signal. The *crest factor* compensation scheme of the AD536 *allows measurement of highly complex signals with wide dynamic range*. The crest factor is often overlooked in determining the accuracy of an ac measurement. Crest factor is defined as the ratio of the peak signal amplitude to the rms value of the signal ( $C.F.=V_p/V_{rms}$ ). Input signal is appropriately processed through a FET input *wide band, extremely fast settling time, low noise amplifier*.

**ACM-103:** In model ACM-103 besides all features of ACM-102, an IC based *1KHz oscillator* followed by a buffer, is in-built. This eliminates the need of an external oscillator for purpose, such as determination of h-parameters of a transistor, bridge measurement etc., where spot frequency of 1KHz is most commonly used.

## Specifications

<b>Voltage Range</b>	20mV, 200mV, 2V and 20V
<b>Frequency Range</b>	10Hz to 200KHz
<b>Input Impedance</b>	1M $\Omega$ shunted by 25pf on all ranges
<b>Accuracy</b>	1% in the range 10Hz-100KHz; 2% in the range 100KHz-200KHz
<b>Display</b>	3½ digit, 7 segment LED (12.5mm height) with decimal and overflow indication
<b>Power Supply</b>	220V $\pm$ 10%, 50Hz
<b>Weight</b>	2.5Kg & 3Kg
<b>Accessories</b>	75cm shielded cable with a coaxial connector at one end and banana plugs on the other end
<b>ACM-103 (Additional Features)</b>	
<b>Oscillator Output</b>	0-300mV continuously variable
<b>Frequency</b>	1KHz fixed