



## Technical Specification, Software V2.00

updated Jul 2001

### Technical Data General Functions

<b>Measurements</b>	- Frequency, Level-RMS, Level-Relative - THD+N, vu+PPM - Polarity Test, Signal Balance Error - Sweep, Frequency Sweep, Time Sweep - 1/3 <sup>rd</sup> Octave Spectrum, Scope
<b>Frequency</b>	
Range	10 Hz to 20 kHz
Resolution	4 digits
Accuracy	< ± 0.1 %
<b>Level</b>	
Units	dBu, dBV, $V_{RMS}$
Resolution	3 digits (dB-scale) or 4 digits (V-scale)
Accuracy	± 0.5 % @ 1 kHz
Bandwidth	20 Hz to 20 kHz
Flatness	± 0.1 dB
<b>THD+N</b> (Total Harmonic Distortion + Noise)	
Meas. Bandwidth	10 Hz to 20 kHz
Resolution	3 digits (dB-scale) or 4 digits (%-scale)
Residual THD+N	balanced < -85 dB @ -10 dBu to +20 dBu unbalanced < -74 dB @ 0 dBu to +14 dBu
<b>vu+PPM</b> (vu-Indicator and Peak Program Meter)	
	according to IEC 60268 and DIN 45406. PPM Type I, IIa and Nordic. Both meters with adjustable reference and with analog & numerical peak-hold readout.
<b>Polarity Test</b> (with MR1 test signal)	
	Positive / Negative detection through internal microphone or XLR/RCA connector. Checks polarity of tweeters, midrange-speakers, woofers, sub- woofers and cables. Down to 10 dB S/N ratio of input signal.

<b>Signal Balance Error</b>	Indication range 0.0 % to 100 % Deviation from perfect balance in % or *1
<b>Sweep</b>	Frequency Sweep: Level as function of frequency. Time Sweep: Measurement of level, THD+N and frequency as function of time.
<b>1/3<sup>rd</sup> Octave</b>	Spectrum acc. IEC 1260, class II and ANSI S1.11- 1976, class II from 50 Hz to 20 kHz, Bargraph for Level <sub>RMS</sub> 20 Hz to 20 kHz
<b>Scope</b>	Auto triggering, auto ranging, auto scaling
<b>Filters</b>	Linear, A-weighting, C-weighting, C-message, Highpass 22 Hz / 60 Hz / 400 Hz, X-Curve <sup>-1</sup> , Voice bandpass
<b>Input Connectors</b>	XLR balanced, RCA unbalanced
<b>Input Impedance</b>	40 kOhm balanced, 20 kOhm unbalanced
<b>Input RMS<sup>1</sup></b> (upper meas. limit)	balanced +20 dBu (7.75 $V_{RMS}$ ) unbalanced +14 dBu (3.8 $V_{RMS}$ )
<b>Max. DC Input</b>	± 50 $V_{DC}$
<b>Residual Noise</b>	< 12 $\mu V$ , XLR-input shorted
<b>Microphone Input</b> (for Polarity measurement only)	Omnidirectional
<b>Monitor Output</b>	Jack 3.5 mm (1/8"), suitable for all common headsets
<b>Display</b>	Graphic LCD 64 x 100 pixel, with backlight
<b>Batteries</b>	3x AA package dry batteries (alkaline) Typical battery lifetime > 16 hrs
<b>Dimensions</b> (L x W x H)	163 x 86 x 42 mm (6.4" x 3.38" x 1.63")
<b>Weight</b>	300 g (10.5 oz) incl. batteries
<b>Temperature</b>	0° to +45° C (32° to 113° F)
<b>Humidity</b>	< 90 % R.H., non condensing

<sup>1</sup> for input levels > 20 dBu (balanced) the ML1 Adapter -20 dB is available

