

## 7. TECHNICAL SPECIFICATION

### Technical Data General Functions

<b>Measurements</b>	<ul style="list-style-type: none"> <li>- Level-RMS, Level-Relative, Frequency</li> <li>- THD+N</li> <li>- vu+PPM</li> <li>- Polarity Test</li> <li>- Signal Balance Error</li> <li>- Sweep, Frequency Sweep, Time Sweep</li> <li>- 1/3<sup>rd</sup> Octave Spectrum</li> <li>- Scope, Frequency</li> <li>- AFILS measurements (with MiniLINK)</li> </ul>
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#### Frequency

Range	10 Hz to 20 kHz
Resolution	4 digits
Accuracy	$< \pm 0.1 \%$

#### Level

Units	dBu, dBV, $V_{RMS}$
Resolution	3 digits (dB-scale) or 4 digits (V-scale)
Accuracy	$\pm 0.5 \%$ @ 1 kHz
Bandwidth	20 Hz to 20 kHz
Flatness	$\pm 0.1$ dB

#### THD+N (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

#### vu+PPM (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.

#### Polarity Test (with Minirator 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> ( upper meas. limit )</b>	balanced +20 dBu (7.75 V <sub>RMS</sub> ) unbalanced +14 dBu (3.8 V <sub>RMS</sub> )
<b>Max. DC Input</b>	± 50 V <sub>DC</sub>
<b>Residual Noise</b>	< 12 µV, XLR-input shorted
<b>Microphone Input (for Polarity measurement only)</b>	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 (L x W x H)</b>	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

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

