7. TECHNICAL SPECIFICATION

Technical Data General Functions

Measurements - Level-RMS, Level-Relative, Frequency

- THD+N - vu+PPM

- Polarity Test

- Signal Balance Error

- Sweep, Frequency Sweep, Time Sweep

- 1/3rd Octave Spectrum

- Scope, Frequency

- AFILS measurements (with MiniLINK)

Frequency

Range 10 Hz to 20 kHz

Resolution 4 digits Accuracy < ± 0.1 %

Level

Units dBu, dBV, V_{pMS}

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

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.

Technical Specification

Signal Balance Error Indication range 0.0 % to 100 %

Deviation from perfect balance in % or *1

Sweep Frequency Sweep: Level as function of

frequency.

Time Sweep: Measurement of level, THD+N

and frequency as function of time.

1/3rdOctave Spectrum acc. IEC 1260, class II and ANSI

S1.11-1976, class II from 50 Hz to 20 kHz, Bargraph for Level_{DMS} 20 Hz to 20 kHz

Scope Auto triggering, auto ranging, auto scaling

Filters Linear, A-weighting, C-weigting, C-message, Highpass 22 Hz / 60 Hz / 400 Hz, X-Curve⁻¹,

Voice bandpass

Input Connectors XLR balanced. RCA unbalanced

Input Impedance 40 kOhm balanced, 20 kOhm unbalanced

Input RMS1 (upper meas. limit)

balanced +20 dBu (7.75 V_{RMS}) unbalanced +14 dBu (3.8 V_{RMS})

Max. DC Input ± 50 V_{DC}

Residual Noise < 12 μ V, XLR-input shorted Microphone Input (for Polarity measurement only)

Omnidirectional

Monitor Output Jack 3.5 mm (1/8"), suitable for all common

headsets

Display Graphic LCD 64 x 100 pixel, with backlight

Batteries 3x AA package dry batteries (alkaline)

Typical battery lifetime > 16 hrs

Dimensions (L x W x H)

163 x 86 x 42 mm (6.4" x 3.38" x 1.63")

 Weight
 300 g (10.5 oz) incl. batteries

 Temperature
 0° to +45° C (32° to 113° F)

 Humidity
 < 90 % R.H., non condensing</td>

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

Technical Data Acoustic Functions

Measurements - Sound Pressure Level

- 1/3rd Octave Spectrum

Acoustical Functions

in accordance with IEC61672. Class 2

- Instantaneous Sound Pressure Level (Lp)
- · Maximum/Minimum Sound Pressure Level (Lmax/Lmin)
- Time Response selectable
- · Weighting Filters
- · Equivalent Continuous Sound Pressure Level (Leq)
- · Pause- and Continue Function

Sound Pressure Level

Units dB_{SPL} , dB_{Leq} , dB_{LAeq} , dB_{LCeq}

Resolution 3 digits

Display Ranges 20 - 140 dB $_{\rm SPL}$ in 3 bands 20 - 100 dB $_{\rm SPL}$

40 - 120 dB_{SPL} 60 - 140 dB_{SPL}

Bandwidth 20 Hz to 20 kHz

Flatness According to class 1

Time Response Selectable fast, slow, impuls

Weighting Filters Selectable A, C, linear,

X-Curve⁻¹ (for 1/3rd octave spectrum only)

Integration Pause- and Continue Function

1/3rdOctave Spectrum

31 octave band display 20 Hz to 20 kHz

Sensitivity Selectable default value (MiniSPL),

calibration to external source, editable sensitivity value