



Technical Specification, Software V2.00

updated Jul 2001

Technical Data General Functions

Measurements - Frequency, Level-RMS, Level-Relative

- THD+N, vu+PPM

- Polarity Test, Signal Balance Error

- Sweep, Frequency Sweep, Time Sweep

- 1/3rd Octave Spectrum, Scope

Frequency

Range 10 Hz to 20 kHz

Resolution 4 digits Accuracy < ± 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, Ila and Nordic.

Both meters with adjustable reference and with

analog & numerical peak-hold readout.

Polarity Test (with MR1 test signal)

Positive / Negative detection through internal microphone or XLR/RCA connector. Checks polarity of tweeters, midrange-speakers, woofers, subwoofers and cables. Down to 10 dB S/N ratio of

input signal.

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_{pMs}) unbalanced

+14 dBu (3.8 V_{PMs})

Max. DC Input $\pm 50 \text{ V}_{DC}$

Residual Noise < 12 μV, 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

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

Minilyzer ML1

Technical Data Acoustic Functions

(firmware 2.00 or higher, applicable with MiniSPL only)

Measurements - Sound Pressure Level

- 1/3rd Octave Spectrum

Acoustical Functions

in accordance with IEC60651 and IEC 60804

• 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 $20 - 140 \text{ dB}_{\text{spl}}$ in 3 bands $20 - 100 \text{ dB}_{\text{spl}}$

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

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