8. Technical Specification

Measurements

- Sound Pressure Level
- Real Time Analyzer
- Zoom FFT
- Reverberation Time
- Delay Time
- Level RMS, Distortion THD+N
- Frequency
- Polarity Test
- Speech Intelligibility STI-PA (optional)

Sound Pressure Level

- SPL, Leq, LCpeak, Lmin, Lmax in accordance with IEC 61672
- Timer for single and repeated measurements
- Dynamic range (using MiniSPL): 30 - 130 $dBSPL_A$
- Filters: Flat, A, C, X-Curve^{-1}, RLB (Broadcast Loudness)
- Logging of SPL/RTA results into AL1 memory
- Wideband and RTA values simultaneously available

Real Time Analyzer

- 1/3 or full octave band resolution, class 0 filters
- SPL, Leq and Max-Min display per band

Reverberation Time

- 1/1 Octave band resolution, 63 Hz - 8 kHz, based on T20 results, according to ISO3382
- 1/3 Octave band resolution with post-processing
- Automatic averaging with individual result readout and storage
- Source signal: Gated pink noise (from Test-CD or Minirator)

Zoom FFT

- Real-time Zoom FFT with 50% overlapping, 93 Bins
- Frequency Range: 10 Hz - 20 kHz
- Resolution: 187.5 Hz to 0.73 Hz

Delay Time

- Propagation delay between electrical and acoustic signal input using built-in mic. Resolution < 0.1ms, max time: 1 s
- Dedicated test signal: NTi Audio chirp (from Test-CD or Minirator)

Polarity Test

- Positive / Negative detection through internal microphone or XLR RCA connector
- Checks polarity of midrange-speakers, woofers, sub-woofers and cables.
- Down to 10 dB S/N ratio of input signal.
- Testsignal: NTi Audio Polarity Signal (AL1 Test CD or Minirator)

Electrical

- Level RMS, THD+N, Frequency, Polarity
- Filters: Flat, A-weighting, C-weighting, Highpass 400 Hz, Highpass 19 kHz

STI-PA (Option)

- Single value STI and CIS test result. Modulation indices and individual band level results accessible. Error indicator.
- Fulfills the IEC 60268-16 release 2003 standard (including amplitude weighting)
- TNO verified algorithm

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 ± 0.5 % @ 1 kHz
- Bandwidth 20 Hz to 20 kHz
- Flatness ± 0.1 dB

THD+N (Total Harmonic Distortion + Noise)

- 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

PC Interface

- Internal device memory for up to 580 records
- USB interface to MiniLINK PC software
- Online data logging from Acoustilyzer directly to PC

Input Connectors

- XLR balanced, RCA unbalanced

Input Impedance

- 40 kOhm balanced, 20 kOhm unbalanced

Input RMS (upper measurement limit)

- balanced +20 dBu (7.75 V_{RMS})
- unbalanced +14 dBu (3.8 V_{RMS})
- for input levels > 20 dBu (balanced) the Adapter -20 dB is available as accessory

Max. DC Input

- ± 50 V_{DC}

Residual Noise

- < 12 μV, XLR-input shorted

Internal Microphone (for Polarity and Delay measurement only)

- Omni directional

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 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