MEZZO
Precision Microphone

The *MEZZO* Precision Microphone provides an innovative and cost-effective solution for professional grade acoustical measurements.

More than just a DAQ system, the DSP embedded in each *MEZZO* Precision Microphone ensures real-time signal processing.

Designed to be used with a tablet PC or any other Windows-based PC, the *MEZZO* Precision Microphone benefits from the versatility and flexibility provided by computers. This approach also allows the *MEZZO* Precision Microphone along with the *MEZZO* Noise Analyzer Module to be offered at a very competitive price.

- Noise Analyzer Module (SLM, RTA & FFT) (included)
- Noise Monitor Module (Long Term Monitoring) (optional)
- Building Acoustics Module (optional)
- Waveform Recorder and Post-Processing Module (optional)

Used along with the *MEZZO* software, the *MEZZO* Precision Microphone complies with IEC 61672 (2013).

Specifications	
Microphone	BSWA MPA221 (Class 1)[1] or BSWA MPA225 (Class 2)[2]
Connector	SMB
Peak Maximum Level[3]	Low Range: 112 dB$_{pk}$ High Range: 126 dB$_{pk}$
Noise Level[4]	Low Range: 22 dBA, 20 dBC, 25 dBZ High Range: 32 dBA, 30 dBC, 35 dBZ
Under-Range Limit Level[5]	Low Range: 32 dBA, 30 dBC, 35 dBZ High Range: 39 dBA, 37 dBC, 42 dBZ
Input Range	Low Range: 0.42 V$_{pk}$ High Range: 2.1 V$_{pk}$
Maximum Sampling Rate	48 kHz
Signal Conditioning	IEPE
Communication	USB 2.0 (Mini B connector)
Dimensions	230 x 32 x 23 mm
Power Supply	USB Powered (Max 0.35W)

1: ½" MP201 Mic with MA221 Preamp – 50 mV/Pa, IEC 61672 (2013) Class 1, SMB Connector
2: ½" MP215 Mic with MA221 Preamp – 40 mV/Pa, IEC 61672 (2013) Class 2, SMB Connector
3, 4, 5: Evaluated according to IEC 61672 (2013) Class 1, using 50 mV/Pa sensitivity

Soft dB

1040, Belvedere Avenue, Suite 215,
Quebec (Qc) G1S 3G3 Canada

Phone 1 (418) 686-0993
Toll Free 1 (866) 686-0993

Web Site www.softdb.com
E-mail info@softdb.com

Mezzo Noise Analyzer Module (included)

The *MEZZO* Noise Analyzer Module is the perfect tool for everyday sound level measurements and spectral analysis. With standard 1/1, 1/3, 1/24 octave real-time digital filters and FFT analysis, the Mezzo Noise Analyzer Module provides professional results with ease.

The *MEZZO* Noise Analyzer Module is included as the standard measurement module with the *MEZZO* Precision microphone.

With its intuitive interface the *MEZZO* Noise Analyzer Module eliminates the need to read instruction manuals. Just connect a *MEZZO* Precision Microphone and you are ready to go!

The large and clear interface is easy to read and work with; you will never want to use a small SLM display again.

Designed with touchscreens in mind, the *MEZZO* Noise Analyzer Module includes automatic keyboards and keypads to enhance your mobile experience.

The *MEZZO* Noise Analyzer software provides class 0 digital filters and 64-bit computing offering the highest level of precision.

The *MEZZO* Noise Analyzer Module along with the *MEZZO* Precision Microphone offers a high-quality real-time analyzer with FFT capability at an unbeatable price.
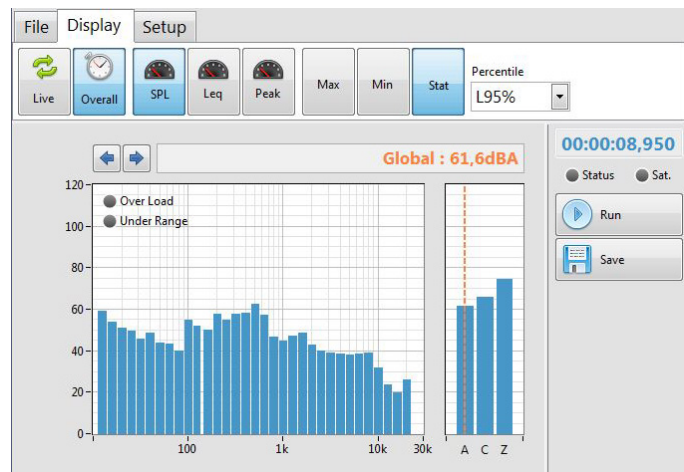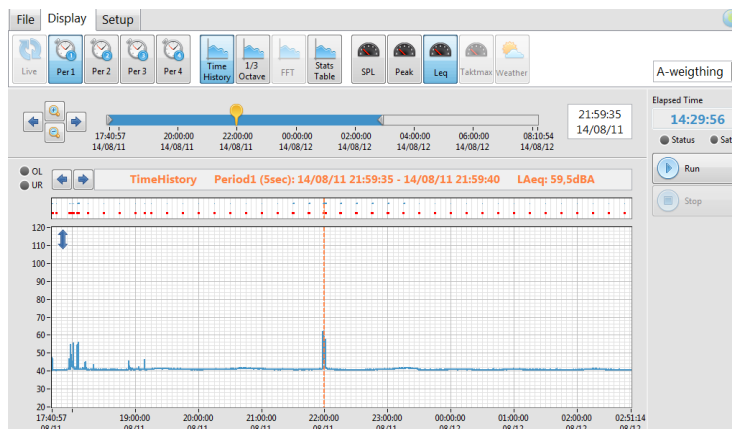
Specifications	
Displays	Live and Overall
Spectrums	1/1 Octave (16Hz to 16kHz), 1/3 Octave (12.5Hz to 20kHz), 1/24 Octave (11.4Hz to 22.1kHz), or FFT (DC to 24kHz, Leq only)
Time Weightings (SPL)	Slow, Fast or Impulse
Frequency Weightings	A, C and Z
Metrics (Spectrum and Global levels)	Lmin, Lmax, LN%, Leq, and Lpeak
Instant Rate	50 ms
Standard Compliance	IEC 61672-1 (2013), IEC 61260 (2014), ANSI S1.4 (2014), ANSI S1.11 (2014)
Minimum Requirement	Windows XP SP3 and later, 1.2 GHz CPU, 2 GB RAM

Mezzo Noise Monitor Module (optional)

The *MEZZO* Noise Monitor Module is the perfect tool for remote noise monitoring stations:

- 4 distinct interval periods (1s to 24h);
- Audio records (mp3 and wave) on trigger and/or periodic;
- Continuous camera snapshots on trigger and/or periodic;
- Weather station support;
- Solar panel and power monitoring;
- FTP data transfer;
- And More!

Specifications	
Interval Periods	4 distinct (1s to 24h)
SPL LMax, LMin and LN%	Global and 1/3 Octave
SPL Time Weigth	Slow, Fast or Impulse
Leq	Global, 1/3 octave and FFT
LPeak	Global and 1/3 octave
LTm5 (Taktmax)	Global
Global Levels	A, C and Z
1/3 Octave Band Spectrum	12.5Hz to 20kHz
FFT Spectrum	1000 lines over 20kHz, 10kHz, 5kHz, 3.33kHz, 2kHz or 1kHz
Instant Rate	50 ms
Audio	Mp3 or Wav (periodic or triggered – 5s records to always on)
Camera[1]	Frame rate down to 0.5s (periodic or triggered – 5s sequences to always)
Weather[2]	Temperature, Humidity, Wind Speed and Direction, Rain, and Barometer Averaged on each interval period
Power Monitoring[3]	Battery state of charge, load power consumption, and solar charging power
Notifications	Noise exceedance and/or power-loss, email and/or SMS
FTP Data Transfer	Text or Binary[4] format
Standard Compliance	IEC 61672-1 (2013), IEC 61260 (2014), ANSI S1.4 (2014), ANSI S1.11 (2014)
Minimum Requirement	Windows XP SP3 and later, 1.2 GHz CPU, 2 GB RAM

1: Compatible with IDS XS camera, available with a weatherproof casing; contact us for more info.

2: Compatible with Davis Instruments Vantage stations with Weatherlink USB logger.

3: Compatible with EpSolar Tracer Serie MPPT solar charge controller, proprietary cable required; contact us for more info.

4: The binary format is compatible with Soft dB web interface, contact us for more information

Mezzo Building Acoustics Module (optional)

The *MEZZO* Building Acoustics Module is the ideal software module for the acoustical specialist, providing an integrated project file with on-site reports:

- Room Noise;
- Reverberation Time;
- Airborne Sound Insulation;
- Impact Sound Level;
- And More!

The *MEZZO* Building Acoustics Module uses a project file approach, combining all measurements and test reports in a single file.

This approach makes it easy to manage a large quantity of measurements and provide on-site reports. The on-site reporting allows the user not only to view the test result instantly, but also to make sure that no measurement has been forgotten.
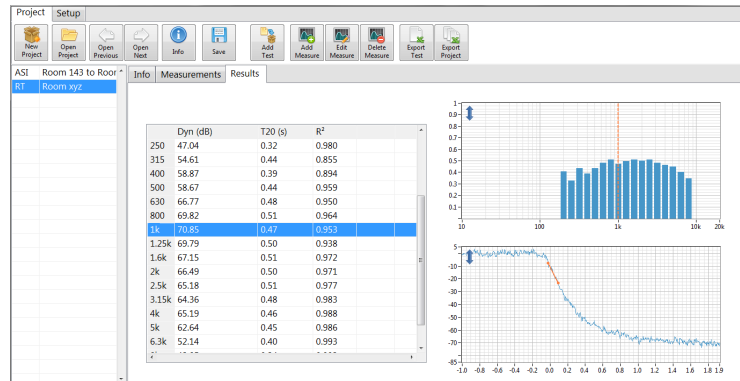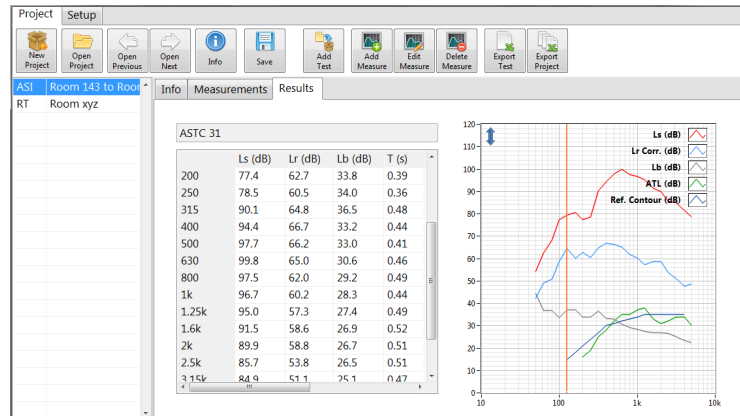
Specifications

Room Noise	NC, RNC, RC MKII (ANSI S12.2:2008), RC, NCB (ANSI S12.2:1995) NR (ISO 1996:1971)
Reverberation Time	T10, T15 T20, T30 (ISO 3382-2:2008) T25 (ASTM E 2235:2004) Interrupted noise method 1/1 Octave and 1/3 Octave
Airborne Sound Insulation	D_w, $D_{n,w}$, $D_{nT,w}$, R'_w (ISO 140-4:1998, ISO 717-1:2013) NIC, NNIC, ASTC (ASTM E 0336:2005, ASTM E 0413:2004)
Impact Sound Level	$L'_{n,w}$, $L'_{nT,w}$ (ISO 140-7:1998 - ISO 717-2:2013) FIIC (ASTM E 0989:2006, ASTM E 1007:2004)
Spectrums	1/1 Octave (16Hz to 16kHz), 1/3 Octave (12.5Hz to 20kHz),
Minimum Requirement	Windows XP SP3 and later, 1.2 GHz CPU, 2 GB RAM