

## MEZZO Intensity Probe

The *MEZZO* Intensity Probe provides an innovative and cost-effective solution for sound intensity measurements.

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

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

- Intensity Analyzer (included)
- I-Track for Mezzo (optional)

Used along with the *MEZZO* Intensity Analyzer Module, the *MEZZO* Intensity Probe complies with IEC 61043 (1993) standard.



### Specifications

Intensity Microphone Set	GRAS 40GK <sup>1</sup>
Intensity Processor	IEC 61043 Class 1
Peak Maximum Level <sup>2</sup>	Low Range: 122 dB <sub>pk</sub> High Range: 136 dB <sub>pk</sub>
Noise Level <sup>2</sup>	Low Range: 34 dBA High Range: 44 dBA
Under-Range Limit Level <sup>2</sup>	Low Range: 44 dBA High Range: 48 dBA
Maximum Sampling Rate	48 kHz
Signal Conditioning	IEPE
Communication	USB 2.0 (Mini B connector)
Dimensions	370 x 32 x 23 mm
Power Supply	USB Powered (Max 0.35W)

1: ½" 40GK Mic with 26CB Preamp – 12.5 mV/Pa, IEC 61043 (1993) Class 1, Microdot Connector

2: Evaluated according to IEC 61672 (2013) Class 1, using 12.5 mV/Pa sensitivity

## Mezzo Intensity Analyzer Module (included)

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

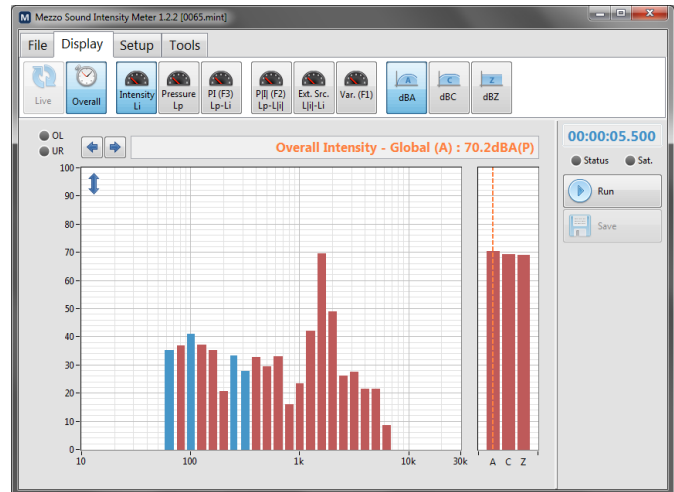
The *MEZZO* Intensity Analyzer Module is included as the standard measurement module with the *MEZZO* Intensity Probe.

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

The *MEZZO* Intensity Analyzer Module offers phase mismatch compensation filters, class 0 digital filters and 64-bit computing offering the highest level of precision.

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

The *MEZZO* Intensity Analyzer Module along with the *MEZZO* Sound Intensity Probe offers a high-quality real-time sound intensity analyzer at an unbeatable price.



### Specifications

Displays	Live and Overall
Spectrums	1/1 Octave, 1/3 Octave, 1/24 Octave, or FFT (user defined bandwidth to fit microphone spacer, from 10Hz to 20kHz)
Frequency Weightings	A, C and Z
Metrics (Spectrum and Global levels)	Pressure, Intensity, PI index (F3), P   index (F2), Extraneous Sources index (F3-F2), Time Variability (F1)
Instant Rate	Variable from 50ms to 1s
Phase Mismatch Compensation	FIR-IIR phase correction filters
Environmental Compensation	Compensation for Atmospheric Pressure, Temperature and Humidity
Standard Compliance	IEC 61043 (1993), ISO 9614-1 (1995), ISO 9614-2 (1996), ISO 9614-3 (2002)
Minimum Requirement	Windows XP SP3 and later, 1.2 GHz CPU, 2 GB RAM

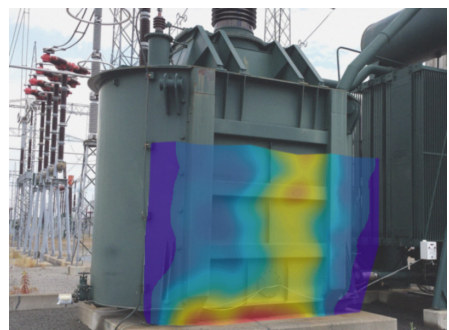
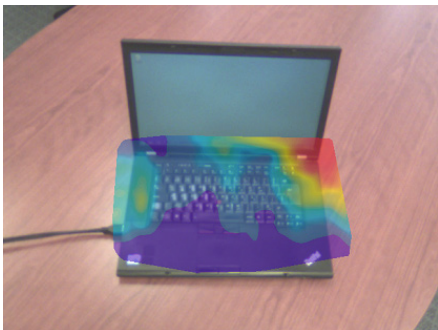
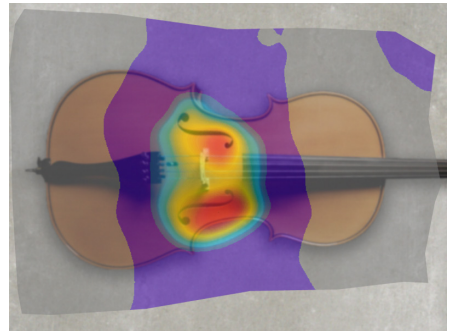
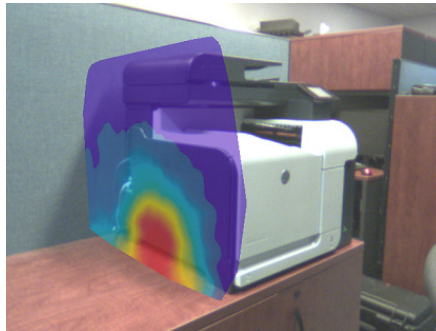
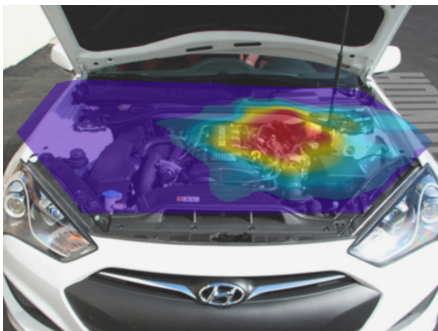
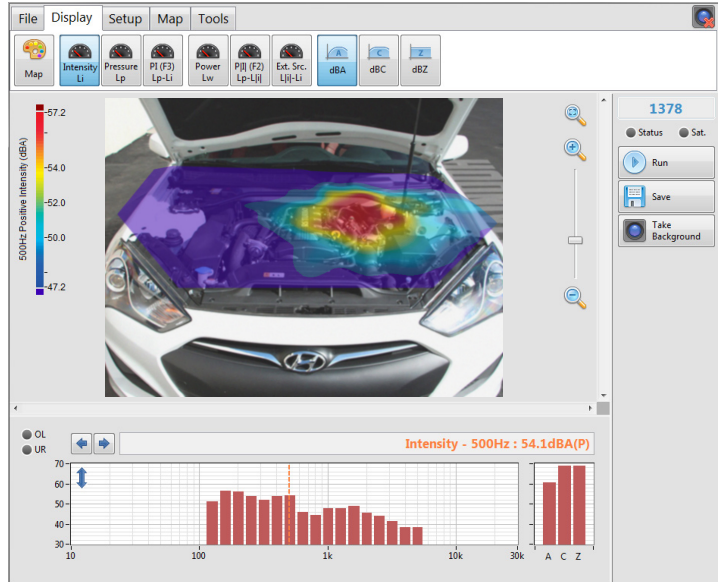
## Mezzo I-Track System (Optional)

The adage “A picture is worth a thousand words” has never been truer in the field of acoustics. The translation of complex acoustical phenomena can be a hard task especially when it comes to informing non-technical clients. Wouldn't it be easier just to take a picture? The answer is YES!

The *MEZZO* I-Track System is a powerful tool for easy, fast and accurate sound imagery. The images are created by combining the acoustic data provided by the *MEZZO* Sound Intensity Probe with its position provided by a camera-based tracking device in real-time. The result is a high-definition sound image performed in a few minutes.

The *MEZZO* I-Track System offers a complete solution to create sound imagery both in the field and in laboratory. Its compact system makes it easy to carry and fast to setup a measurement.

The *MEZZO* I-Track System provides invaluable information in many fields of acoustics such as product manufacturing, consulting, and laboratory experiments.



## Mezzo I-Track System (Optional)

The *MEZZO* I-Track System uses a digital camera and a tracking device to precisely locate the sound intensity probe in space.

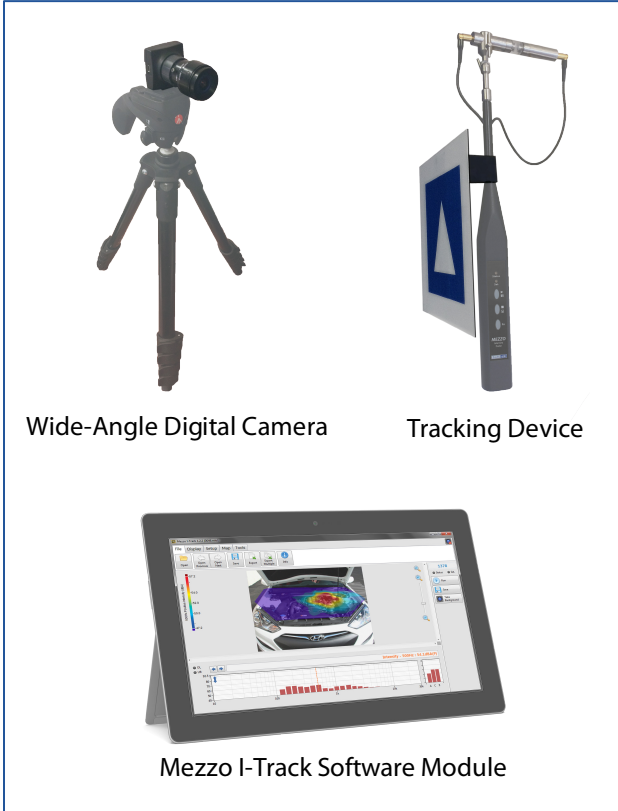
While you scan the measurement surface, the probe position is tracked for each acoustic measurement interval (typically 10 times a second).

Every measurement point is drawn on the picture in real-time creating the sound map on the screen as you scan the measurement surface.

The resulting pictures are not only great looking, but are also highly precise. Sound intensity, pressure and PI index levels can be plotted for every frequency band as well as the global level. Correspondingly, the associated spectrum shows the spatial average of pressure, intensity, PI index (F3), P|| index (F2), Extraneous sources index (F3-F2) and sound power.

The *MEZZO* I-Track Software Module offers the same sound intensity processing features as the *MEZZO* Intensity Analyzer Module such as the phase mismatch compensation filters, class 0 digital filters and 64-bit computing offering the highest level of precision.

The *MEZZO* I-Track system along with the *MEZZO* Sound Intensity Probe offers a high-quality, unrivaled, real-time sound imagery system at an unbeatable price.



Wide-Angle Digital Camera

Tracking Device

Mezzo I-Track Software Module

### Specifications

Spectrums	1/1 Octave , 1/3 Octave, 1/24 Octave, or FFT (user defined bandwidth to fit microphone spacer, from 10Hz to 20kHz)
Frequency Weightings	A, C and Z
Metrics (Spectrum and Global levels)	Pressure, Intensity, PI index (F3), P   index (F2), Extraneous Sources index (F3-F2), Sound Power
Instant Rate	Variable from 50ms to 1s
Phase Mismatch Compensation	FIR-IIR phase correction filters
Environmental Compensation	Compensation for Atmospheric Pressure, Temperature and Humidity
Tracking	Optical Tracking using digital camera, 6 Degrees of freedom (DOF), Real-World units
Camera Resolution	800 x 600
Camera Field of View	120° (Wide mode), 82° (Zoom mode) [optically corrected to <1% distortion]
Measurement Plane	6 DOF Position and Area automatically computed using 3D data points
Interpolation	Constrained Delaunay Triangulation
Averaging	2D Gaussian averaging (user defined size from 0 to 1m radius)
Standard Compliance	IEC 61043 (1993)
Minimum Requirement	Windows XP SP3 and later, 2.4 GHz CPU, 4 GB RAM