VA-Lab 2/4 represents the most cost-effective 2 or 4-channels solution for all your needs in Acoustics Measurement and Analysis.

**Features**

A complete set of application oriented modules for measurements and analysis of acoustic signals.

- Simultaneous real-time 2/4 channel FFT, 1/n octave, and cross-spectra, etc.
- Long term noise monitoring for environmental noise analysis or product noise monitoring
- Measurement of sound absorption coefficients in impedance tube according to ISO10534-1 and ISO10534-2
- Measurement of sound transmission in impedance tube using four-microphone technique (VA-Lab4 only)
- Multi-channel reverberation time measurements
- Measurement of Sound Insulation between rooms and automatic calculation of Indices.
- Sound power measurements based on ISO 3745 with 2/4 channels
- Sound Intensity measurements and partial sound power calculations
- Audio analysis for frequency responses and harmonic distortions.
- Data recording and playback

**Applications**

Building industry, Materials, Construction Machines, Environmental, Electric appliances/IT, and Household appliances.

**Technical Specifications**

VA-Lab2 supports the following hardware from BSWA:

- **MC3022**: 2 channel IC inputs; 2channel outputs; USB powered. Recommended for field use
- **MC3522**: 2 channel IC inputs; 2channel outputs; USB powered, built-in power amplifier to drive loudspeakers (needs 220V AC power for amplifier) Recommended for impedance tube; and audio analysis
- **VS302USB**: 2 channel IC inputs; 2channel outputs; 220V AC powered. Recommended for Lab uses.

VA-Lab4 supports the following hardware from BSWA:

- **MC3242**: 4 channel IC inputs; 2channel outputs; USB powered. Recommended for field use
- **MC3642**: 4 channel IC inputs with gain x1, x10, and x100; 2 channel outputs. Recommended for lab use.
VA-Lab2/4 Standard Functions

- **VA-Lab Hardware management & configuration**
- Transducers and Calibrations
- Signal recording: Direct-to-disk (PC)
- Signal playback to earphone
- Signal playback to analyzer
- Statistics: RMS, RMS in band, Leq, Min, Max, Peak, P-P, Average, Disparity, Skew, Kurtosis, Statistics vs. time
- Narrow Band Analysis up to 12,800 lines (from 20Hz to Max Bandwidth and zoom)
- Broad Band Analysis up to 1/24th (from 20Hz to Max Bandwidth)
- Average FFT, Average Cross Spectrum, Average 1/n analysis
- Octave vs. Time
- Real time Display
- Sine, Peak/Noise Noise; Sweep; Multi-tone
- User defined signal in .Wav formats
- Vibration Measurements (VA-Lab4 only)

VA-Lab Optional Software Modules

- Environmental Noise Monitoring: RMS, RMS in band, Leq, Min, Max, Peak, P-P, Ln, 1/3 Octave vs time.
- Reverberation Measurements
- Sound Intensity Measurements
- Sound Power Measurements using 2/4 channels
- Sound Insulation between rooms using 2/4 channels
- Sound absorption measurements in the impedance tube
- Sound transmission loss measurements in impedance tube (VA-Lab4 only)
- Sound absorption measurement in R-Cabin or reverberation room (VA-Lab4 only)
- Audio signal analysis for frequency response and total harmonics distortion.