Measurement Microphones

By GeorgePetersen

hese days, room measurement tools are easier to use and affordable — even built into digital consoles and smart phones, making what was once drudgery into a convenient and straightforward operation. While the software may be built into or included in your tools at hand (or readily available software packages), all you may need is a USB preamp/interface, a laptop and/or that iPad you've been using for wireless mix control and you're ready to go. Well, almost — as an uncolored omnidirectional microphone with a flat frequency response is a must for any serious analysis work. With that in mind, we checked out a few of the offerings and found a wide selection to suit any application or budget.

iSEMcon SEMCON THE FOR CHOICE

EMX 7150 Measurement Mic

This ¼" measurement microphone features a very accurate frequency response combined with the ability to measure sound pressure levels of up to 146 dB. It operates at standard 12 to 52 VDC phantom power available on most professional computer interfaces and mic preamplifiers. Powered from just 12 Volts (5 mA), the power-saving EMX-7150 is ideal for



For more information, contact www.isemcon.com or 1.877.309.1002

use with wireless transmitters, yet still provides a wide 135 dB SPL range. The EMX-7150's mechanically robust design (with its stainless steel body and state of the art watertight Neutrik XLR connector) is well-suited for harsh environments, such as open-air sound reinforcement measurements. Each microphone comes with individual calibration data as proof of its superb performance.

FEATURED LISTING

FEATURES

Frequency Range: 10 Hz to 20k Hz

- Sensitivity: > 6mV/Pa typ. Dvnamic Range: ~30 to >140 dB SPL
- Dynamic Range: ~30 to >140 dB SPL
- Max SPL: 146 dB typ. (@ 3% distortion
- with 48V of phantom power) Acoustic Port Diameter: 1/4" (7mm)
- **Dimensions:** 0.75" (19mm) diameter; 6" (152mm) length
- Weight: 3 ounces (75 grams)
- **Extras:** Calibration chart and calibration
- data files included; IEC 61672 Class 1
- frequency response (note not a Class 1
- microphone)

TYPICAL APPLICATIONS

- Sound Power and Soundfield Analysis
- Industrial Acoustics
- Room Acoustics Analysis

beyerdynamic mm-1

Pattern: Omnidirectional

Max SPL: 122 dB

Sensitivity: 15 mV/Pa

Self-Noise: 26 dBA

Termination: XLR-M

Street Price: \$199

kHz

curve

Frequency Response: 20 Hz - 20

Powering: 12 - 48 VDC phantom

Notes: Includes individually

measured frequency response

Sound Reinforcement
Real Time Analyzing

AudioControl CM-10

Pattern: Omnidirectional Frequency Response: 20 Hz - 20 kHz (±3dB) Max SPL: 136 dB Sensitivity: Not stated Self-Noise: Not stated Powering: 12 VDC phantom Termination: XLR-M Notes: Calibrated internal preamp Street Price: \$121

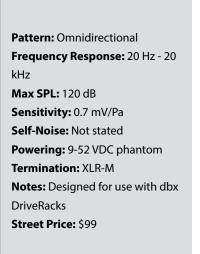


Pattern: Omnidirectional Frequency Response: 20 Hz - 25 kHz (±2dB) Max SPL: 140 dB Sensitivity: 6.5 mV/Pa Self-Noise: 28 dBA Powering: 18 - 52 VDC phantom Termination: XLR-M Notes: \$399 TM-1+ kit has windscreen, clip, calibration CD Street Price: \$299



audiocontrol.com

dbx RTA-M



dbxpro.com

audix-usa.com

Earthworks M23

Pattern: Omnidirectional Frequency Response: 9 Hz - 23 kHz (+1/-3 dB) Max SPL: 142 dB Sensitivity: 34 mV/Pa Self-Noise: 20 dBA Powering: 48 VDC phantom Termination: XLR-M Notes: Includes printed frequency response chart Street Price: \$499



Goldline TEF04

north-america.beyerdynamic.com

Pattern: Omnidirectional Frequency Response: 20 Hz - 20 kHz (±1dB) Max SPL: 123 dB Sensitivity: 9.1 mV/Pa Self-Noise: not stated Powering: 12 - 48 VDC phantom Termination: XLR-M Notes: Designed for use with TEF systems Street Price: \$386



gold-line.com

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