mh acoustics LLC
25A Summit Ave
Summit, NJ 07901
contact@mhacoustics.com

www.eigenmike.com

em64 Eigenmike® Spatial Microphone

mh acoustics' em64 Eigenmike® spatial microphone contains an array of 64 professional-grade electret microphone capsules mounted on a rigid spherical baffle. All electronics are contained inside the sphere. The em64 is powered by a standard Power-over-Ethernet (PoE) ethernet cable and uses Audinate's Dante digital audio protocol over standard ethernet networks. For critical recording applications, the em64 has primary and secondary ethernet ports for network redundancy.

mh acoustics' native EigenStudio® application or EigenUnits® VST plugins process the microphone output signals to form up to 6th-order spherical harmonic (HOA) basis signals and/or up to any number of desired beampattern output signals. General beamformer outputs are efficiently computed and can be steered to any desired direction in 3D space.

em64 Eigenmike® spatial microphone

HARDWARE

Microphone capsules : 64 omnidirectional electret capsules

Equivalent Input Noise per microphone channel (EIN): < 22dBA

Max SPL (<1% THD): 130 dBA

Max SPL (A/D FS): 135 dBA

Frequency response: 20 Hz - 20 kHz

HOA spatial aliasing cutoff frequency: > 12 kHz

Input gain control: 15 dB Pad, 0-30 dB programmable gain amplifier (PGA)

Sampling rate: 48 kHz

A/D resolution: 24 bits

Clock Sync: Clock sync via Dante, IEEE 1588 Precision Time Protocol (PTP)

Cable: Standard CAT5E/CAT6 cable; 100m maximum length

Power: Power over Ethernet (PoE); 10 Watts, 48V

Communication protocol: Dante (Audinate) Gb Ethernet

Redundant networking: Primary and Secondary ports

Max. Number of simultaneous em64 units: 8 (Gb ethernet)

Size: 8.4 cm diameter; overall height including shaft 28.0 cm

Weight: 0.75 kg

Vibration shock-mount with standard 3/8" and 5/8" threads included

EIGENSTUDIO® APPLICATION

Control of analog microphone gain (Pad and PGA)

Spherical harmonics (HOA): selectable up to 6-th order, general rotation

Selectable beampatterns: Omni, Hypercardioid, Supercardioid, MaxRE, Cardioid, Dipole (from 1st to 6th -order)

Beam steering directions: All spherical angles

Outputs: 64 microphone channels, 1st to 6th-order HOA signals, up to 32 beamformer outputs

Supported Operating Systems: Windows, macOS

EIGENUNITS® PLUGINS (VST)

Control Plugin: control of analog microphone gain (Pad and PGA)

Encoder Plugin: higher-order Ambisonics encoder (6th-order)

Supported Operating Systems: Windows, macOS

OPTIONS

Windscreen, PoE Switch, Dante Headphone Amplifier