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em64d Eigenmike® Spatial Microphone

General Description

mh acoustics' em64d Eigenmike® spatial microphone contains 64 professional-grade digital MEMS 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 em64d has primary and secondary ethernet ports for network redundancy.

mh acoustics' native EigenStudio® application or EigenUnits® 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.

em64d Eigenmike® spatial microphone

Technical Data

Hardware

Microphone capsules : 64 omnidirectional studio-quality digital MEMS microphone capsules

Equivalent Input Noise per channel : 14 dBA

Max SPL (<10% THD) : 146 dB

Frequency response: 20 Hz - 20 kHz

HOA Spatial Aliasing cutoff frequency: > 12 kHz

Sampling rate: 48 kHz

A/D resolution: 24 bits

Clock Sync: Internal or External Word Clock via Dante, IEEE 1588 Precision Time Protocol (*PTP*).

Cable: Standard CAT5E/CAT6 cable; 100m maximum

Power: Power over Ethernet (PoE); 10 Watts

Communication protocol: Audinate's Dante

Number of simultaneous em64 units: 8 (Gb ethernet)

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

Weight: 0.5 kg

EigenStudio® application

Spherical harmonics (HOA): selectable up to 6-th order, can be rotated

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

Beam steering directions: All spherical angles

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

Supported Operating Systems: Windows, macOS

EigenUnits® plugins

Control Plugin: access to analog gain control

Encoder Plugin: 6th order plugin with AMBIX format (ACH and SN3D)

Supported Operating Systems: Windows, macOS

Options

Windscreen, Gb PoE Switch, Dante Headphone Amp, ceiling mounting hardware