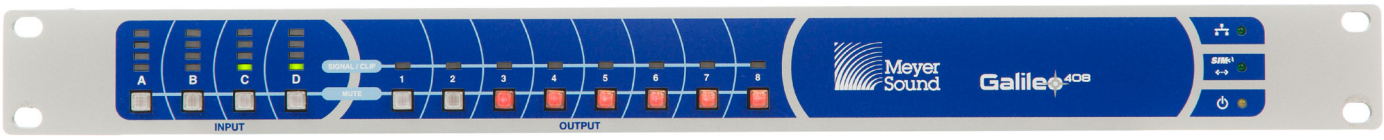
Galileo® 408 : Loudspeaker Management System



The Galileo loudspeaker management system is an elegant hardware and software solution for driving and aligning multi-zone loudspeaker systems. The single-space, rack-mount Galileo 408 includes four inputs, eight outputs, and a fully digital matrix processor. The Compass® control software provides comprehensive control of all parameters from a Mac® or Windows®-based computer.

The Galileo 408 shares the same 24-bit, 96 kHz audio quality and 32-bit floating point internal processing as the Galileo 616 processor, though with fewer inputs and outputs.

Designed as the perfect complement to Meyer Sound's self-powered loudspeakers, the Galileo loudspeaker system includes array correction for M Series™ array loudspeakers, atmospheric correction filters, low- and high-pass filters for subwoofer control, and configuration presets for Meyer Sound loudspeaker systems of various types and sizes.

The Galileo 408 offers an extensive equalization architecture that includes complementary phase parametric filtering and TruShaping® low-order equalization on both inputs and outputs. 31-band graphic equalization is also available on inputs.

Equalization parameters are easily edited in the Compass control software, with numeric entry or by graphically dragging frequency bands. Parameters can be adjusted while viewing multiple layers of equalization in a composite graphic plot to achieve the ideal equalization curve. The Compass software's intuitive user interface is the culmination of Meyer Sound's extensive experience optimizing complex loudspeaker systems.

The Galileo 408 features full digital operation with fixed latency across all output channels regardless of any applied processing. It can also be connected directly to the SIM® 3 audio analyzer, providing complete measurement and control for integrated audio systems.

Features & Benefits

- Four inputs (analog, AES/EBU, or mixed) and eight analog outputs with full matrix mixing and routing
- Robust +26 dBu outputs easily drive Meyer Sound self-powered loudspeaker systems over long cable runs
- A/D/A conversion with 24-bit resolution at 96 kHz; digital inputs converted to 96 kHz sample rate
- Monolithic 1 GHz vector DSP architecture
- Internal processing performed at 96 kHz, 32-bit floating point resolution with fixed latency across all output channels
- Array correction for M Series line array loudspeakers
- Atmospheric correction filters
- Patented TruShaping equalization and parametric filtering yield corrections with minimal impact on phase response
- Low- and high-pass filters
- Up to 2 seconds of delay on inputs and outputs
- Configuration presets for Meyer Sound loudspeaker systems
- Ethernet connection for remote control from Mac and Windows-based computers running the Compass control software
- Direct connection to Meyer Sound's SIM 3 audio analyzer

Galileo 408 Specifications

Inputs	
Inputs Section	Four inputs, analog or digital (AES/EBU, selectable in pairs)
Connectors	Goldplated XLR female
Maximum Input Level	+26 dBu (maximum range selected, 0 dB input gain)
Metering	4-segment LED ladder meters on each input
Outputs	
Outputs Section	Eight analog outputs
Connectors	Goldplated XLR male
Maximum Output Level	+26 dBu into 600 Ω or greater (maximum range selected)
Meter	Variable-intensity, bi-color signal presence/clip LEDs on each output
Summing Matrix	
	Full 4 x 8 summing matrix; any input summed with any input and routed to any output
Processing	
Digital Conversion	24-bit resolution, 96 kHz sampling rate
Internal Processing	32-bit vector floating point, 96 kHz
Processor	Monolithic, 1 GHz vector DSP
Input Processing	Gain, delay, TruShaping equalization, 5-band parametric filtering, 31-band graphic equalization
Output Processing	Gain, delay, polarity reversal, TruShaping equalization, 10-band parametric filtering, atmospheric correction, M Series array correction, low- and high-pass filters
Network/Control	
Front Panel	Illuminated mute switches
Network	RJ-45 port for network connection and control from a Mac or Windows-based computer
Software	Full bidirectional communication with Meyer Sound's Compass control software within a client-server architecture
SIM	One SIM bus port for linking to the SIM 3 audio analyzer for measuring Galileo outputs (either post delay or post gain)
AC Power	
Connector	PowerCon®
Operating Voltage Range	100–240 V AC, 50/60 Hz
Power Consumption	0.56 A (110 V AC); 0.28 A (220 V AC), 50/60 Hz
Physical	
Dimensions	Single-space rack 19.00" w x 1.73" h x 15.23"d (483 mm x 44 mm x 387 mm)
Weight	16.5 lbs (7.48 kg)

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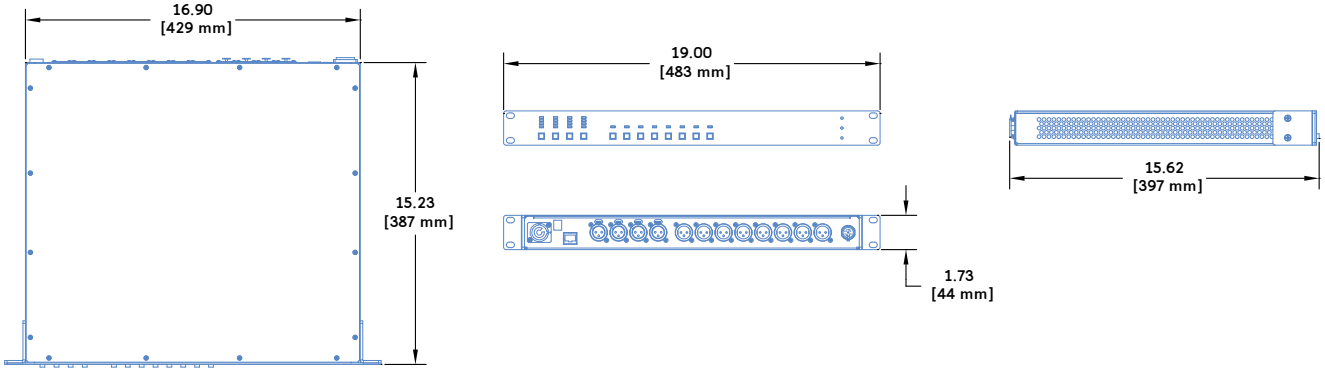

Architect Specifications

The loudspeaker management system shall include 96 kHz, 32-bit floating point processing for up to four input channels (analog or AES/EBU) and eight analog output channels. Input channels shall include dedicated processing for mute, gain, delay, TruShaping equalization, 5-band parametric equalization, and 31-band graphic equalization; output channels shall include processing for mute, gain, delay, polarity reversal, TruShaping equalization, 10-band parametric equalization, as well as filters for subwoofer integration, low-mid buildup for line arrays and curvilinear arrays, and atmospheric correction.

The input and output connectors for the loudspeaker management system (on the unit's rear panel) shall be balanced, goldplated XLR connectors with high-current line drivers capable of output voltages up to +26 dBu, without clipping, into loads of 600 Ohms or higher.

The system's complex digital matrix processor shall allow routing from any input, or combination of mixed inputs, to any combintation of outputs with a fixed latency of 1.53 milliseconds, regardless of the processing applied to the signal.

All features and parameters for the loudspeaker management system shall be controlled from a Mac or Windows-based computer via Ethernet. The unit's front panel shall include illuminated mute switches for input and output channels, LED meters for input channels, and signal/clip indicators for output channels.

The loudspeaker management system shall include connectivity to Meyer Sound's SIM 3 audio analyzer so that measurements can be taken directly from the unit.

The unit shall be housed in a single-space, 19-inch rack-mount cabinet, measuring 15.23" in depth, and weighing just 16.5 lbs (7.48 kg). Its AC inlet shall be a PowerCon locking connector to prevent unwanted power disconnections.

The loudspeaker management system shall be the Meyer Sound Galileo 408 and its software shall be the Compass control software.