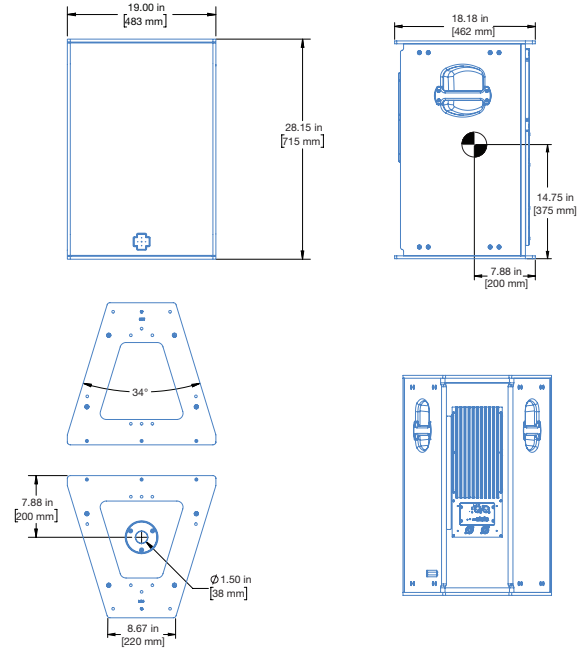


# UPQ-D2 Narrow Coverage Loudspeaker



Meyer Sound’s UPQ-D2 narrow coverage loudspeaker evolves from the UPQ-1P and UPQ-2P product line, now optimized using the advanced amplifier and processing technology that made the LEO® family an award-winning product line. UPQ-D2 features:

- A narrow coverage, Constant-Q horn with -6 dB points at 50° x 50° (-10 dB points at 60° x 60°)
- An innovative, newly designed, highly efficient Class D amplifier with reduced current draw that reproduces any sound with linearity over a wide dynamic range
- Optimized frequency and phase response characteristics
- Lightened cabinet weight
- Redesigned cabinet that retains the original size, grille frame, and rigging options of previous UPQ products

The UPQ-D2 offers a focused beamwidth, which yields precise coverage and minimal interaction with walls and neighboring loudspeakers in arrays. This feature makes it an ideal solution for small to mid-sized venues, houses of worship, theaters, and nightclubs—as either a stand-alone loudspeaker or as part of an array. The Constant-Q horn’s smooth and accurate performance, the result of meticulous research in Meyer Sound’s anechoic chamber, exhibits a remarkably consistent beamwidth in both the horizontal and vertical planes across a wide frequency range of 1–18 kHz. The UPQ-D2 horn also delivers uniform attenuation for all frequencies outside the specified beamwidth.

In addition to the Constant-Q horn, the loudspeaker features a low frequency 15-inch neodymium magnet cone driver and 4-inch diaphragm compression driver, both designed and manufactured at Meyer Sound’s

Berkeley, California headquarters.

The proprietary two-channel, class D power amplifier yields a total power output of 2250 W. Audio input routes through electronic crossover and correction filters, as well as through driver-protection circuitry. Phase-corrected processing ensures a flat acoustical amplitude and phase response, resulting in an exceptional impulse response and precise imaging.

Each amplifier channel has sophisticated limiters that are easily monitored with the limit LEDs on the unit’s rear panel. The UPQ-D2’s modular amplifier and processing electronics incorporate Meyer Sound’s Intelligent AC™ power supply, which adapts to any power voltage worldwide and provides soft-turn on and transient protection. The UPQ-D2 uses a XLR 3-pin female input with male loop output connector.

The optional RMS™ remote monitoring system module provides comprehensive monitoring of loudspeaker parameters from a host computer running Compass® software. An optional XLR 5-pin connector is available to accommodate both balanced audio and RMS signals.

The UPQ-D2 provides extremely high power output with low distortion in a vented two-way enclosure. The UPQ-D2’s durable trapezoidal enclosure has a slightly textured black finish, an integral stand mount receptacle, and versatile rigging end plates. Made of heavy-duty, high-strength, corrosion-resistant 6061-T6 aluminum, the endplates incorporate threaded M10 attachment points.

QuickFly® rigging options include the MPA-UPQ pick-up and array plate and the MYA-UPQ mounting yoke. Other options include Meyer Sound weather protection and custom color finishes for specific cosmetic requirements.

## FEATURES AND BENEFITS

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- Focused symmetrical pattern affords precise coverage and arrayability in horizontal or vertical clusters
- Highly energy efficient amplifier with sophisticated digital signal processing that provides extraordinarily flat amplitude and phase response for tonal accuracy and precise imaging
- Integral stand mount and QuickFly mounting options facilitate rigging
- Constant-Q horn affords uniform response throughout coverage area
- Exceptional size to power ratio provides application flexibility
- Consistent and predictable performance ensures accurate system design

## APPLICATIONS

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- Theatrical sound reinforcement
- Houses of worship
- Portable and installed audio-visual systems
- Centerfill and sidefill
- Nightclubs

## ACCESSORIES AND ASSOCIATED PRODUCTS

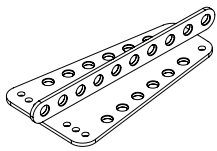
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**MPA-UPQ Pick Up and Array Plate:** The MPA-UPQ Pick Up and Array Plate kit allows for one or multiple UPQ loudspeakers to be suspended at a vertical angle. The kit includes two plates to facilitate installation of two UPQ-D loudspeakers in both horizontal and vertical clusters at variable angles between 34 and 50 degrees in 4-degree increments. A second kit allows clusters up to three units. The kit includes eight M10 bolts and eight M10 knobs. The pick-up holes accept up to a 0.5-inch shackle.

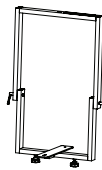
**MYA-UPQ Mounting Yoke:** Cradle-style mounting yoke that suspends a single UPQ-D loudspeaker and supports a wide range of horizontal and vertical adjustment.

**Galileo GALAXY Network Platform:** The Galileo GALAXY Network Platform provides state-of-the-art audio control technology for loudspeaker systems with multiple zones. With immaculate sonic performance, it provides a powerful tool set for corrective room equalization and creative fine-tuning for a full range of applications.

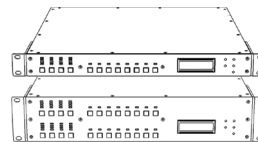
**MDM-832 Distribution Module:** MDM-832 units conveniently power UPQ-D arrays, routing up to eight channels of AC power, balanced audio and RMS signals to the loudspeakers.



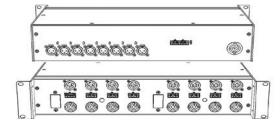
**MPA-UPQ Pick Up and Array Plate**



**MYA-UPQ Mounting Yoke**



**GALAXY Network Platform**



**MDM-832 Distribution Module**

## SPECIFICATIONS

ACOUSTICAL <sup>1</sup>	
Operating Frequency Range <sup>2</sup>	55 Hz – 18 kHz
Frequency Response <sup>3</sup>	61 Hz – 16.5 kHz ±4 dB
Phase Response	80 Hz – 18 kHz ±45°
Linear Peak SPL <sup>4</sup>	<b>138 dB with 19 dB crest factor (M-noise)</b> , 134.5 dB (Pink noise), 137 dB (B-noise)
COVERAGE	
	50° horizontal x 50° vertical (-6 dB) 60° horizontal x 60° vertical (-10 dB)
TRANSDUCERS	
Low Frequency	One high-power 15-inch cone driver with neodymium magnet; 2 Ω nominal impedance
High Frequency	One 4-inch diaphragm compression driver; 8 Ω nominal impedance
AUDIO INPUT	
Type	Differential, electronically balanced
Maximum Common Mode Range	±15 V DC, clamped to earth for voltage transient protection
Connectors	XLR 3-pin female input with male loop output; optional 5-pin connectors to accommodate both balanced audio and RMS signals
Input Impedance	10 kΩ differential between pins 2 and 3
Wiring	Pin 1: Chassis/earth through 220 kΩ, 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal - Case: Earth ground and chassis
Nominal Input Sensitivity	0 dBV (1.0 V rms) continuous is typically the onset of limiting for noise and music
Input Level	Audio source must be capable of producing of +20 dBV (10 V rms) into 600 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker.
AMPLIFIER	
Type	Two-channel, Class-D
Total Output Power <sup>5</sup>	2250 W peak
THD, IM, TIM	< 0.02%
Cooling	Convection
AC POWER	
Connector	PowerCON 20 input with loop output
Automatic Voltage Selection	90–265 V AC, 50–60 Hz
Safety Agency Rated Voltage Range	100–240 V AC, 50–60 Hz
Turn-on and Turn-off Points	90 V AC turn-on; no turn-off; internal fuse-protection above 265 V AC
CURRENT DRAW	
Idle Current	0.27 A rms (115 V AC); 0.25 A rms (230 V AC); 0.29 A rms (100 V AC)
Maximum Long-Term Continuous Current (>10 sec)	2.0 A rms (115 V AC); 1.0 A rms (230 V AC); 2.3 A rms (100 V AC)
Burst Current (<1 sec) <sup>6</sup>	3.6 A rms (115 V AC); 1.8 A rms (230 V AC); 4.1 A rms (100 V AC)
Maximum Instantaneous Peak Current	7.8 A pk (115 V AC); 4.0 A pk (230 V AC); 9.1 A pk (100 V AC)
Inrush Current	< 20 A peak
RMS NETWORK (OPTIONAL)	
	Equipped with two-conductor twisted-pair network, reporting all operating parameters of amplifiers to system operator's host computer.

## SPECIFICATIONS, CONT'D.

PHYSICAL	
Dimensions	W: 19.00 in (483 mm) x H: 28.15 in (715 mm) x D: 18.18 in (462 mm)
Weight	95 lb (43 kg)
Enclosure	Premium multi-ply birch with slightly textured black finish
Protective Grille	Powder-coated, hex-stamped steel with black mesh
Rigging	Aluminum end plates on top and bottom with metric M10 threaded points; integral 1.5-inch (38 mm) pole mount receptacle on bottom

## NOTES

- Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
- Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
- Free-field, measured with 1/3 octave frequency resolution at 4 m.
- Linear Peak SPL** is measured in free-field at 4 m referred to 1 m. Loudspeaker SPL compression measured with M-noise at the onset of limiting, 2-hour duration, and 50 °C ambient temperature is < 2 dB.  
**M-noise** is a full bandwidth (10 Hz–22.5 kHz) test signal developed by Meyer Sound to better measure the loudspeaker's music performance. It has a constant instantaneous peak level in octave bands, a crest factor that increases with frequency, and a full bandwidth Peak to RMS ratio of 18 dB.  
**Pinknoise** is a full bandwidth test signal with Peak to RMS ratio of 12.5 dB.  
**B-noise** is a Meyer Sound test signal used to ensure measurements reflect system behavior when reproducing the most common input spectrum, and to verify there is still headroom over pink noise.
- Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.
- AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the loudspeaker's voltage to drop below the specified operating range.

## ARCHITECTURAL SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system; the transducers shall be a 15-inch diameter cone driver and a 4-inch diaphragm compression driver on an 50° horizontal x 50° vertical horn. The loudspeaker system shall incorporate internal processing electronics and a two-channel amplifier, one channel for each driver. Processing functions shall include equalization, phase correction, signal division, and protection for the high- and low-frequency sections.

Each amplifier channel shall be class D. Peak power shall be 2250 W. Distortion (THD, IM, TIM) shall not exceed 0.02%.

Performance specifications for a typical production unit shall be as follows: operating frequency range shall be 55 Hz–18 kHz (free-field, measured with 1/3-octave resolution at 4 m); phase response shall be from 80 Hz–18 kHz ±45°; linear peak SPL shall be 138 dB with 19 dB crest factor, measured with M-noise, free-field at 4 m referred to 1 m; coverage shall be 50° horizontal x 50° vertical horn at the -6 dB points and 60° horizontal x 60° vertical horn at the -10 dB points.

The audio input shall be electronically balanced with a 10 kΩ impedance and accept a nominal 0 dBV (1 V rms) signal. Connector shall be XLR 3-pin female input with male loop output.

The internal power supply shall perform automatic voltage selection, EMI

filtering, soft current turn-on, and surge suppression. Power requirements shall be nominal 100, 110, or 230 V AC line at 50 or 60 Hz. UL and CE operating voltage range shall be 100–240 V AC. Maximum peak current draw during burst shall be 3.6 A rms (115 V AC), 1.8 A rms (230 V AC), and 4.1 A rms (100 V AC). Current inrush during soft turn-on shall not exceed 20 A. AC power connectors shall be a PowerCON with looping capabilities.

The loudspeaker system shall provide facilities for installing Meyer Sound's optional RMS remote monitoring system.

All components shall be mounted in an acoustically vented trapezoidal enclosure constructed of premium multi-ply birch with a slightly textured black finish. The enclosure shall include an integral 1.5-inch (38 mm) diameter pole mount receptacle and versatile rigging end plates made of high-strength, 6061-T6 aluminum with threaded M10 metric holes for basic eyebolt rigging and shall also accommodate Meyer Sound proprietary rigging hardware. The front protective grille shall be powder-coated, hex-stamped steel with black mesh screen. Dimensions shall be W: 19.00 in (483 mm) x H: 28.15 in (715 mm) x D: 18.18 in (462 mm). Weight shall be 95 lb (43 kg).

The loudspeaker shall be the Meyer Sound UPQ-D2.