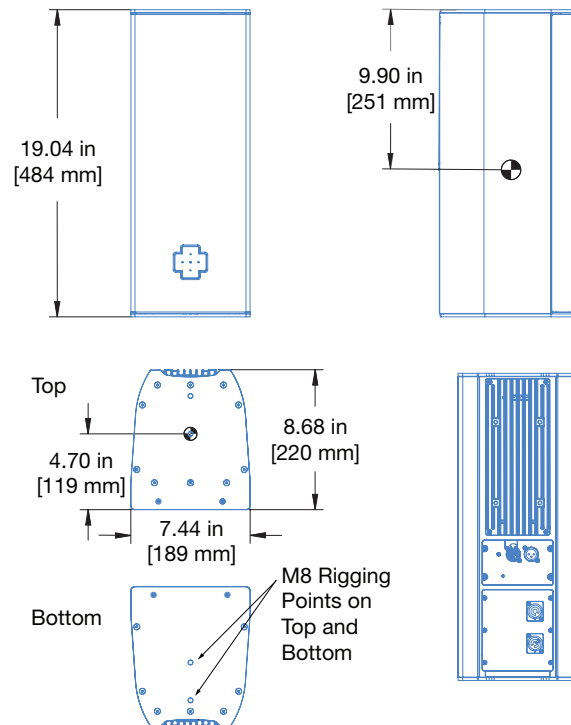


# ULTRA-X20 Compact Wide Coverage Loudspeaker



Meyer Sound's new ULTRA-X20 design extends the award-winning, state-of-the-art ULTRA-X40 point source technology to a smaller version for size- and weight-critical applications.

The ULTRA-X40 evolved from the highly successful UPA loudspeakers—so versatile they have been a universal standard in almost every application for over 35 years. To this legacy, Meyer Sound incorporated technology from the popular and award-winning LEO® Family of loudspeakers to bring multiple enhancements to bear in the ULTRA-X40 design. These enhancements now extend to a smaller version:

- An innovative, highly efficient class D amplifier reproduces any sound source with linearity over a wide dynamic range.
- The small-size cabinet weighs only 27 lbs (12.3 kg).
- Its concentric driver configuration has all the benefits of a coaxial driver, yet none of the disadvantages. In addition, this configuration supports directional control of frequencies down to 600 Hz.
- The extremely well-behaved rotatable horn was designed for very precise, even coverage. This horn design, in conjunction with the concentric driver configuration, delivers the same pattern regardless of orientation.

With these enhancements, the ULTRA-X20 loudspeaker provides high power output, low distortion, and consistent polar response in a very compact, vented enclosure. The loudspeaker features two 5-inch cone low-frequency drivers and one 2-inch diaphragm compression driver coupled with a rotatable 110° x 50° Constant-Q horn. A more controlled pattern is available on the ULTRA-X22 model, which is fitted with a 80° x 50° constant-Q horn. A wider coverage version, the ULTRA-X23, offers a 110° x 110° Constant-Q horn.

Because of its proprietary, high-frequency horn, the beamwidth remains consistent within close tolerances in both the horizontal and vertical planes,

and across the horn's operating frequency range. Uniformly predictable polar behavior takes much of the guesswork out of system design and assures optimal system performance.

A proprietary three-channel, class D digital power amplifier powers the ULTRA-X20 loudspeaker, which has a total peak power output of 860 watts. Audio processing includes electronic crossover, correction filters for phase and frequency response, and driver protection circuitry. Phase-corrected electronics ensure flat acoustical amplitude and phase response, resulting in exceptional impulse response and precise imaging.

The amplifier/processing package incorporates Meyer Sound's Intelligent AC™, which auto-selects the correct operating voltage, suppresses high voltage transients, filters EMI and provides soft-start power-up. The ULTRA-X20 cabinet provides audio XLR and PowerCON 20 input and looping output connectors. The ULTRA-X20XP version with IntelligentDC technology suits applications where AC power distribution is a limiting factor. It receives DC power and balanced audio from a Meyer Sound power supply.

The optional RMS™ remote monitoring system module provides comprehensive monitoring of loudspeaker parameters from a host computer running Compass® software.

Meyer Sound builds the elegant, slightly curved enclosure out of aluminum with a slightly textured black finish. A powder-coated, round-perforated steel grille provides protection to the front of the loudspeaker.

The ULTRA-X20 includes two integral M8 rigging points on each end to enable a variety of configurations including those requiring pole mounting, hanging individually from a single point, wall mounting or ceiling mounting.

Optional rigging accessories include a 35 mm to M8 pole adapter, U-bracket, yoke, and a pinnable link on a channel that allows the hanging of a single or multiple units from a single pick-up point. Other options include weather protection and custom color finishes.

## FEATURES AND BENEFITS

- Exceptional fidelity and surprising power capability delivered in a compact, elegant and light aluminum enclosure
- Extraordinarily flat amplitude and phase response ensures tonal accuracy and precise imaging
- Wide pattern covers broad listening areas
- Rotatable horn provides installation flexibility
- Integral stand mount and QuickFly® mounting options facilitate rigging

## APPLICATIONS

- Multi-purpose Audio/Visual
- Corporate rental
- Houses of worship
- Conference rooms
- High-end private installations
- Retail spaces
- Theater

## PRELIMINARY SPECIFICATIONS

ACOUSTICAL	
Operating Frequency Range	60 Hz – 18 kHz
Phase Response	100 Hz – 16 kHz ±45°
Linear Peak SPL <sup>1</sup>	<b>123.5 dB (M-noise)</b> , 121.5 dB (Pink Noise), 121 dB (B-noise)
COVERAGE	
	Rotatable horn: 110° x 50° (ULTRA-X20), 80°x 50° (ULTRA-X22), or 110°x 110° (ULTRA-X23)
TRANSDUCERS	
Low Frequency	Two 5-inch cone drivers
High Frequency	One 2-inch diaphragm compression driver
AUDIO INPUT	
Connectors	XLR 3 female input with male loop output. Optional XLR 5-pin connector to accommodate both balanced audio and RMS signals.
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	3-channel, Class-D
Total Output Power <sup>2</sup>	860 W peak
AC POWER	
Connectors	PowerCON 20 input with loop output
Safety Rated Voltage Range	100–240 V AC, 50–60 Hz
CURRENT DRAW	
Maximum Long-Term Continuous Current (>10 sec)	<1.5 A rms (115 V AC)
PHYSICAL	
Dimensions	W: 7.44 in (189 mm) x H: 19.04 in (484 mm) x D: 8.68 in (220 mm)
Weight	27 lb (12.3 kg)
Enclosure	Aluminum with slightly textured black finish
Protective Grille	Powder-coated, round-perforated steel

## NOTES

1. **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 (10Hz–22.5 kHz) test signal developed by Meyer Sound to better measure a 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.

**Pink noise** 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.

2. Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.