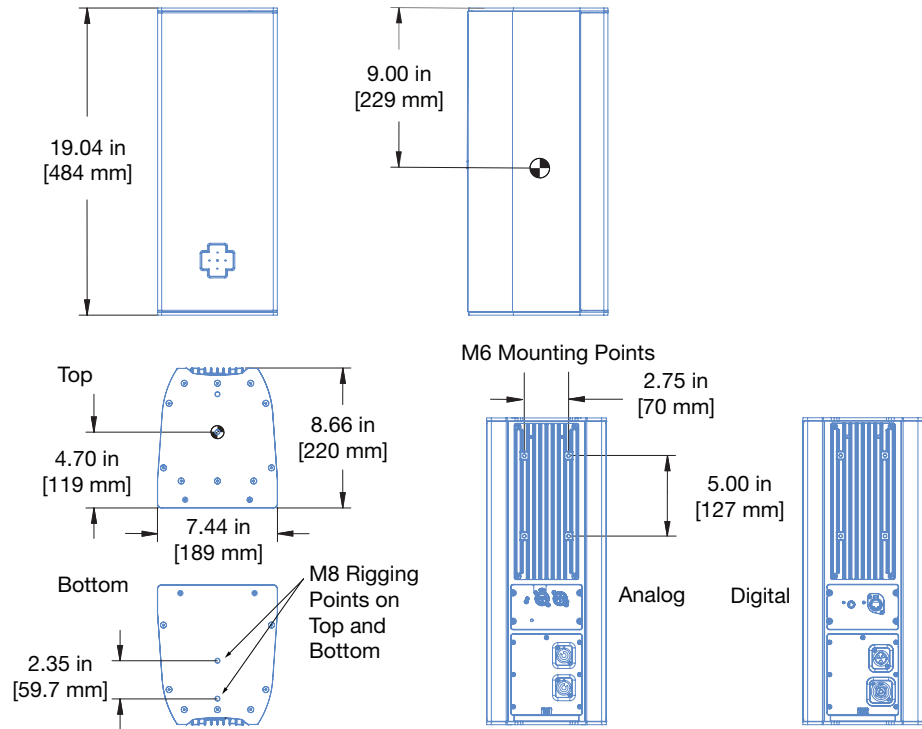
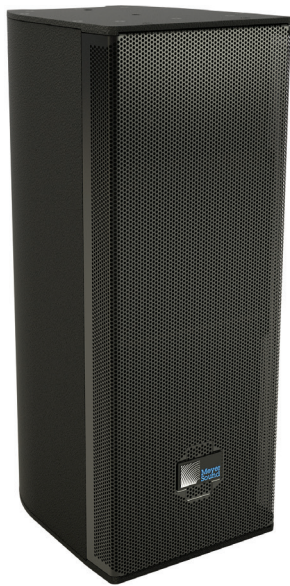


# ULTRA-X20™



## ULTRA-X20™, ULTRA-X22™, ULTRA-X23™



### SPECIFICATIONS

ACOUSTICAL <sup>2</sup>	ULTRA-X20	ULTRA-X22	ULTRA-X23
Operating Frequency Range <sup>3</sup>	60 Hz – 18 kHz	60 Hz – 18 kHz	60 Hz – 18 kHz
Frequency Response <sup>4</sup>	65 Hz – 17.5 kHz ± 4 dB	65 Hz – 17.5 kHz ± 4 dB	65 Hz – 17.5 kHz ± 4 dB
Phase Response	95 Hz – 18 kHz ±45°	95 Hz – 18 kHz ±45°	95 Hz – 18 kHz ±45°
Linear Peak SPL <sup>5</sup>	<b>127 dB with 20 dB crest factor (M-noise),</b> 123.5 dB (Pink Noise), 125.5 dB (B-noise)	<b>128.5 dB with 20 dB crest factor (M-noise),</b> 123.5 dB (Pink Noise), 125 dB (B-noise)	<b>127.5 dB with 20 dB crest factor (M-noise),</b> 124 dB (Pink Noise), 125.5 dB (B-noise)
<b>COVERAGE</b>			
	<b>Rotatable horn: 110° x 50°</b>	<b>Rotatable horn: 80° x 50°</b>	110° x 110°
<b>TRANSDUCERS</b>			
Low Frequency	Two 5-inch cone drivers; 6 Ω nominal impedance		
High Frequency	One 2-inch diaphragm compression driver connected to a rotatable horn; 8 Ω nominal impedance		

## SPECIFICATIONS, CONT'D.

AUDIO INPUT		ANALOG AUDIO VERSION	DIGITAL AUDIO VERSION
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 or XLR 3-pin TOP (Total Outdoor Protection) connectors on weather-protected units only.		etherCON TOP
Input Impedance	10 kΩ differential between pins 2 and 3		—
Wiring	Pin 1: Chassis/earth through 1 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.		—
Digital Format	—		Milan Certified
AMPLIFIER			
Type	Three-channel, Class-D		
Total Output Power <sup>6</sup>	860 W peak		
THD, IM, TIM	<0.02%		
Cooling	Convection		
AC POWER			
Connector	powerCON 20 input with loop output; powerCON TRUE1 TOP with loop output on digital and weather-protected units		
Automatic Voltage Selection	90–265 V AC, 50–60 Hz		
Safety 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	0.15 A rms (115 V AC); 0.13 A rms (230 V AC); 0.16 A rms (100 V AC)		
Maximum Long-Term Continuous Current (>10 sec)	0.9 A rms (115 V AC); 0.5 A rms (230 V AC); 1.1 A rms (100 V AC)		
Burst Current (<1 sec) <sup>7</sup>	1.6 A rms (115 V AC); 0.8 A rms (230 V AC); 1.8 A rms (100 V AC)		
Maximum Instantaneous Peak Current	3.5 A peak (115 V AC); 1.8 A peak (230 V AC); 4.1 A peak (100 V AC)		
Inrush Current	< 20 A peak		
MONITORING			
Telemetry	Integrated monitoring via Meyer Sound's Nebra Software		

## SPECIFICATIONS, CONT'D.

PHYSICAL	
Dimensions	W: 7.44 in (189 mm) x H: 19.04 in (484 mm) x D: 8.66 in (220 mm)
Weight	27 lb (12.3 kg)
Enclosure	Aluminum with slightly textured black finish
IP Rating	Weather-protected version rated IP54. See the ULTRA-X20 Operating Instructions available at <a href="http://meyersound.com/documents">meyersound.com/documents</a> for details.
Protective Grille	Powder-coated, round-perforated steel
Rigging	Two integrated M8 threaded points on each end; optional accessories for various rigging options (see accessories section); four M6 threaded holes with 5-inch by 2.75-inch (127 mm by 70 mm) hole pattern on the rear for use with third-party wall mounts.

## NOTES

1. Milan is a trademark of the Avnu Alliance ([avnu.org](http://avnu.org)).
2. Loudspeaker system predictions for coverage and SPL are available in Meyer Sound's MAPP System Design Tool.
3. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
4. Free-field, measured with 1/3 octave frequency resolution at 4 m.
5. **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.
6. Peak power based on the maximum unclipped peak voltage the amplifier will produce into the nominal load impedance.
7. 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.



Digital Version

