ARCHITECTURAL SPECIFICATION — ULTRA-X80

Versatile Point Source Loudspeaker

The loudspeaker shall be a self-powered, full-range system. The transducers shall consist of two 12-inch cone drivers and one 4-inch diaphragm compression driver connected to rotatable horns in 2 models. The wide coverage model shall have a 95° x 40° horn, and the controlled coverage model shall have a 50° x 40° horn.

The loudspeaker system shall incorporate internal processing electronics and a two-channel, class D amplifier. Processing functions shall include equalization, phase correction, signal division, and protection for the high and low-frequency sections. Peak output power shall be 2400 W total with 8 Ω nominal impedance for the high-frequency channel and 4 Ω nominal impedance for the low-frequency channel. 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; phase response shall be 90 Hz – 18 kHz ±45°. Maximum linear SPL shall be 140 dB for the ULTRA-X80 and 141 dB for the ULTRA-X82, measured in free-field at 4 m referred to 1 m using AES75. Coverage pattern (–6 dB points) shall be 95° by 50°, horizontal or vertical, depending on horn orientation, for the ULTRA-X80. Coverage pattern (–6 dB points) shall be 50° by 40°, horizontal or vertical, depending on horn orientation for the ULTRA-X82.

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

The digital audio input shall be an AVB-enabled Ethernet port certified for use with the Milan protocol audio over IP protocol.

The internal power supply shall perform EMI filtering, soft current turn-on, and surge suppression. Powering requirements shall be nominal 208 V AC or 230 V AC line current at 50 or 60 Hz. UL and CE operating voltage range shall be 200–240 V AC. Maximum long-term continuous power shall be 900 W, burst power shall be 2400 W, and idle power shall be 55 W. The AC power connector shall be Neutrik powerCON TRUE1 TOP.

The loudspeaker system shall provide facilities for monitoring audio status and component health via Ethernet connections and the Meyer Sound RPM Remote Product Monitoring.

All loudspeaker components shall be mounted in an acoustically vented trapezoidal enclosure constructed of premium multi-ply birch with a slightly textured black finish. The front protective grille shall be powder-coated, round-perforated steel. Dimensions shall be W: 18.27 in (464 mm) x H: 34.02 in (864 mm) x D: 25.35 in (644 mm) with rear handles.

Weight shall be 138 lb (62.6 kg).

The wide coverage loudspeaker model shall be the Meyer Sound ULTRA-X80 and the controlled coverage loudspeaker model shall be the Meyer Sound ULTRA-X82.

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