**Veritas 250BL smart mixer amplifier**

ARCHITECTS’ & ENGINEERS’ SPECIFICATIONS

JUNE 2025

The mixer/amplifier shall use Class D amplification with 48 kHz, 24-bit digital signal processing architecture. The mixer/amplifier shall have a switch-mode power supply allowing normal operation from AC outlets ranging from 100–240 V (±10%) at 50/60 Hz. The mixer/amplifier shall include an IEC C14 electrical power inlet with a removable power cord. A power switch shall be on the front panel. The mixer/amplifier shall have an automatic standby mode function than can be enabled or disabled.

The mixer/amplifier shall include protection from shorted loads and general overheating. The mixer/amplifier shall have venting with a natural-convection cooling system.

The mixer/amplifier shall have two output channels and drive 4–8 Ω low-impedance systems. The output power shall be 50 watts per channel at 4 Ω and 25 watts per channel at 8 Ω. The loudspeaker output connections shall be two 2-pin Euroblock connectors. The auxiliary line output shall be two RCA connectors. The digital signal processor shall include selectable EQ presets to be applied to the loudspeaker outputs and the auxiliary output.

The mixer/amplifier shall have two line-level inputs (two RCA stereo pairs), one Bluetooth wireless signal input, one front-panel mic/line input (one XLR/¼-inch connector), and one paging microphone input (one 4-pin Euroblock connector). The line-level inputs and Bluetooth signal input shall be selectable via a switch on the front panel. The paging microphone input shall be mounted on the rear and support dynamic microphones with push-to-talk (PTT) functionality. The mixer/amplifier shall include a setting to determine if the paging microphone input shall be controlled by or bypass the master volume control. All inputs shall have individual input gain controls except for the Bluetooth signal.

The frequency response of the mixer/amplifier shall be 40 Hz to 18 kHz (+0/-3 dB). The THD+N at rated power shall be less than or equal to 0.3%. The channel separation (crosstalk) shall be less than or equal to -60 dBV below rated power at 1 kHz. The dynamic range shall be 88 dB. The nominal input sensitivity shall be -10 dBV for line-level inputs and -58 dBV for paging microphone inputs.

The front panel shall include three LEDs: one for power/standby indication, one for input level signal presence or clipping, and one for Bluetooth connection status.

Various settings of the mixer/amplifier shall be configurable by a front-panel OLED display and a rotary encoder to navigate the menu/interface and adjust settings.

The mixer/amplifier shall have one port intended for use with a Bose Professional ControlCenter CC-1 or CC-2 analog controller. The mixer/amplifier shall have a mute connection for use with external dry contacts to mute the loudspeaker outputs and auxiliary output.

The chassis of the mixer/amplifier shall be constructed of painted steel. The height shall be 1RU or 1.7 inches (44 millimeters) for EIA-standard rack-mounting. The width shall be 8.4 inches (214 millimeters) and the depth shall be 12.2 inches (310 millimeters). The weight shall be 4.4 pounds (2.0 kilograms).

The mixer/amplifier shall be the Veritas 250BL smart mixer amplifier.