FreeSpace IZA 250-LZ / 190-HZ integrated zone amplifier

ARCHITECTS’ & ENGINEERS’ SPECIFICATIONS

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The mixer/amplifier shall employ Class-D amplification together with a digital signal processing architecture running at 48 kHz / 24 bit. The mixer/amplifier shall incorporate a switch-mode power supply allowing normal operation from AC outlets ranging from 100 – 240 V (+/- 10%) at 50/60 Hz. The amplifier shall have an IEC 320-C14 electrical pow­er inlet and shall be equipped with a removable power supply cord. A power switch shall be located on the front panel. The product shall include protection from shorted loads and general overheating. The mixer/amplifier’s physical size shall be 1 RU in height by 1/2 RU in width and be capable of rack mounting using an accessory kit. Two models shall be designed to be rack mounted together horizontally to combine for a full-width 1 RU installation. The product shall have venting appro­priate for natural convection without fans. The amplifier section shall have two amplifier configurations offered in two separate models. Each output channel shall have output trim controls.

The low impedance model shall have two output channels with a frequency response of 40 Hz to 20 kHz (+0/-3 dB) and drive 4 ohm loads at 50 watts continuous power or 25 watts per channel continuous power into 8 ohm loads. The low impedance model shall have THD+N at full-rated power less than or equal to 0.3%. Output connection shall be made via two terminal strips that accommodate 22-14 AWG wires using included spade lug connectors.

The high impedance model shall have a single output channel with a frequency response of 60 Hz to 20 kHz (+0/-3 dB) and drive 70/100 V distributed audio systems. The high impedance model shall have THD+N at full-rated power less than or equal to 1%. Output connection shall be made via a 3-pin Euroblock connector.

Both models shall meet or exceed the following performance specifica­tions: channel separation (crosstalk) less than or equal to -60 dB below rated power at 1 kHz and dynamic range of 88 dB. The mixer/amplifier shall incorporate 3 line-level inputs (two RCA stereo, one 3.5 mm ste­reo) and two microphone inputs for paging applications. Two of the line level inputs shall be selectable via a switch on the front panel while the third input shall override line-input channels upon connection. The nom­inal input sensitivity shall be 0 dBV for line level inputs and -40 dBV for microphone inputs. One microphone input shall be mounted to the front panel, have a selectable mix/duck option and use a combination XLR-TRS connector for dynamic microphones. The second microphone input shall be mounted on the rear, support dynamic microphones and select telephone systems with PTT switching. Both microphone inputs shall bypass master volume control via a selector on the rear panel. All inputs shall have individual input gain controls with the exception of the 3.5 mm priority input connector on the front panel. Two LEDs shall be visible on the front panel—one (blue) for power indication, the second (red) for input level clip (over -3 dBFS). The mixer/amplifier shall have an auxiliary line-output via two RCA connectors. The digital signal processor shall enable a user-selectable loudspeaker preset (Bose FreeSpace FS2 and FS4 loudspeakers) or high-pass filter to be applied to the loudspeaker output and (via selector) the auxiliary output con­nectors. The front panel shall also have user-accessible treble, bass and master volume controls. The mixer/amplifier shall have a remote control input intended for use with the Bose Volume control with A/B switch user interface or third party switches/10k ohm linear taper potentiom­eters. The mixer/amplifier shall offer a master mute connection for use with external dry contacts to mute output of the amplifier and auxiliary output. The rear panel shall contain a stereo/mono switch that allows optimization of the amplifier output (low impedance model only) and the auxiliary line-level output when using stereo or mono sources.

The mixer/amplifier chassis shall be constructed of painted steel. The dimensions of the mixer/amplifier shall allow for 19-inch (483 mm) EIA standard rack mounting using the optional rack mounting kit accessory. The mixer/amplifier shall be 1.8 inches (45 mm) in height, 8.4 inches (214 mm) in width and 12.2 inches (310 mm) in depth. The low impedance model shall weigh 4.8 pounds (2.2 kg). The high impedance model shall weigh 7 pounds (3.2 kg). The mixer/amplifier shall be the Bose FreeSpace IZA 250-LZ (or IZA 190-HZ) integrated zone amplifier.