Preliminary

Dante®

Model 348 Intercom Station

STUDIO TECHNOLOGIES INC.

Overview

The Model 348 Intercom Station provides eight channels of independent talk and listen channels compatible with Dante audio-over-Ethernet networks. This desktop unit is designed to serve as the audio control center for production personnel in numerous applications including on-air television sports and news broadcasting, live events, and corporate AV. The Model 348 can connect to virtual "party-line" and private point-to-point intercom channels, as well as create IFB channels to be routed to on-air talents' listen devices.

Over a standard IP network, multiple Model 348 units can be used in party-line (PL) intercom applications with help from an external Dante-enabled audio matrix such as the Studio Technologies Model 5422 Dante Intercom Audio Engine. Units can also be used "point-to-point" or interfaced with Dante-compatible matrix intercom systems. The unit includes two Neutrik etherCON RJ45 connectors for redundant network connections. The primary network connection can provide power to the unit using standard Power-over-Ethernet (PoE) network switches. It can also be DC powered using a 10-18 volt source that is connected with a broadcast-standard 4-pin XLR connector. If both the PoE and DC power sources are connected the unit will be powered by the PoE supply only.

The Model 348 can be used with broadcast- or intercom-style headsets with dynamic or electret microphones through the 5-pin female XLR headset connector or with a dynamic gooseneck-style microphone through the 1/4" gooseneck connector. A low-noise microphone preamplifier and associated voltage-controlled-amplifier (VCA) dynamics controller (compressor) ensures that mic input audio quality is preserved while minimizing the chance of signal overload. The user can monitor the Dante audio inputs on either the headset output or the built-in, high-quality speaker. A modern class-D speaker amplifier IC is used for maximum fidelity.

The front panel includes eight RGB illuminated rotary controls which are used to control the level of the Dante signal sources. Two more rotary controls are used to mute/un-mute and control the output level to the headset and speaker. Each illuminated control can show if signal is present on the associated audio channel or if the channel is muted. Eight illuminated pushbutton switches allow the user control of the eight Dante outputs as well as show the presence of a 20 kHz call signal.

The STcontroller software application is used to configure the operating parameters of the Model 348. Each pushbutton switch on the front panel can be individually configured using STcontroller. Each button's operating mode can be set to Push to Talk or Push to Talk/Tap to Latch. Outputs can be configured for Normal Operation, Hot Mic mode, Local IFB mode, or Remote IFB mode. In Local IFB mode the associated Dante input channel serves as the program audio source and can be attenuated or muted when the local talk channel is active. In Remote IFB mode the Dante output will include an 18 kHz inaudible tone when activated which can be used with the Model 5422 Dante Intercom Audio Engine's tone operated IFB function. STcontroller can also be used to assign each listen source, whether from the eight Dante input channels or local sidetone, to the left, right, or left and right headset outputs.

The Model 318's main application firmware can be updated using the USB port on the back of the unit; the Dante firmware can be updated via Ethernet.

Overall dimensions are approximately 6.5 inches wide (16.5 cm), 2.5 inches high (6.4 cm), and 4.6 inches deep (11.7 cm) and weighs approximately 1.8 pounds (0.8 kg).