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5450CS H/G

GLOBALCOM® 5400 Series Digital Communication Station

General Description

The 5450CS H/G digital communications station is a fully programmable touch screen user interface device for initiating audio / visual announcements, messages, and pages with the 5400 Series Announcement Control Systems. Each model utilizes an electret condenser cartridge that is positioned in the housing such that its frequency response is enhanced. The microphone element location provides the mechanism for good acoustical coupling to provide a full-bodied, highly intelligible voice signal.

The 5450CS has an auxiliary line level audio input which may be used as a (local) background music source. The station also has a line level audio output which may be used as a zone out.

The 5450CS is a network appliance in which each station may obtain its IP address automatically or be assigned a unique IP address which simplifies installation and configuration.

Features

- Fully programmable touch screen user interface
- Supervision of the microphone element
- Handheld, Gooseneck, Surface (flat) or Desktop (free standing) versions
- Redundant Ethernet ports
- PoE powered

Front Panel Features

- Fully programmable touch screen user interface
- Alarm Indicator LED (red)
- Fault Indicator LED (yellow)
- Busy Indicator LED (yellow)
- Ready Indicator LED (green)

Handheld Microphone

The handheld microphone assembly contains an omnidirectional electret condenser microphone cartridge integrated with a microphone preamplifier and an audio line driver. The microphone element and preamplifier are mounted in a teardrop shaped molded black textured Cyclolac™ housing. The use of an omnidirectional element eliminates the proximity effect which creates a boomy sound when a user speaks close to a microphone.

The electret condenser microphone cartridge consists of a high voltage internal membrane, metal electrode and a Field Effect Transistor (FET). The requirement for a high voltage bias is not necessary as with ordinary condenser microphone elements. The cartridge features include a highly efficient electrical specification, pressure type operating principle, low impedance (2.2 kΩ), and high reliability under adverse shock, vibration and other environmental conditions.

It utilizes a magnet for attachment to the microphone station base assembly and is supplied with a circular coiled cable which is built into the housing assembly. A strain relief is built into the housing end of the cable and locks into the housing. The terminations at each end are molded, 6 wire, RJ25 connectors which provide extra strength and resistance to failure by pull-out.

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Gooseneck Microphone

The gooseneck microphone contains an omnidirectional electret condenser microphone cartridge integrated with a microphone preamplifier and an audio line driver. The microphone element is mounted in the metal windscreen portion of the gooseneck. The preamplifier and line driver are on a PC board mounted inside the base of the gooseneck on an XLR connector. The microphone assembly is a 12" gooseneck with a hard metal windscreen at the top and a 5-pin XLR connector in the base for mounting.

Specifications

Electrical	
Auxiliary Supply Voltage	20 to 58 Volts AC or DC
PoE Supply Voltage (IEEE 802.3af)	48 Volt
Auxiliary Input	
Frequency Response	±0.5 dB
22 Hz - 22 kHz, Input Level = 0 dBu	
Total Harmonic Distortion, THD	<0.2%
22 Hz - 22 kHz, Input Level = 0 dBu	
Signal-to-Noise Ratio, S/N	>85 dB
22 Hz - 22 kHz, Input Level = 0 dBu	
Auxiliary Output	
Frequency Response	±0.5 dB
22 Hz - 22 kHz, Input Level = 0 dBu	
Total Harmonic Distortion, THD	<1.5%
22 Hz - 22 kHz, Input Level = 0 dBu	
Signal-to-Noise Ratio, S/N	>85 dB
22 Hz - 22 kHz, Input Level = 0 dBu	
Microphone Input	
Frequency Response	±0.5 dB
22 Hz - 22 kHz, Input Level = 0 dBu	
Total Harmonic Distortion, THD	<0.03%
22 Hz - 22 kHz, Input Level = 0 dBu	
Signal-to-Noise Ratio, S/N	>85 dB
22 Hz - 22 kHz, Input Level = 0 dBu	
Compressor	
Compression Threshold	–15 dBu
Ratio	5:1
Attack Time	22 mSec
Release Time	1 Sec
Maximum Output (Line Output)	+4 dBu
Analog-to-Digital Converter, A/D	24 bit
Internal Processing	32 bit, Floating Point
Sample Rate	48 kHz
Network Latency (Dante)	2 mSec
Mechanical	
Desktop Size	11.82" W x 6.19" H x 6.08" D (30,02 cm x 15,72 cm x 15,44 cm)
Wall Mount Size	11.82" W x 6.26" H x 2.01" D (30,02 cm x 15,90 cm x 5,11 cm)
Environmental	
Operating Temperature Range	32˚F – +104˚F (0˚C – +40˚C)
Storage Temperature Range	–40˚F to +158˚F (–40˚C to +70˚C)
Connectors	
Auxiliary Power	2-pin Phoenix, 3.81 mm spacing with locking screws
Auxiliary Audio In/Out (2)	3-pin Phoenix, 3.81 mm Pitch