

5404CS / 5401CS

GLOBALCOM® 5400 Series Digital Microphone Station



Features

The 5404CS/5401CS digital microphone station provides immediate high-quality digitization of full bandwidth audio, and transmission over a standard Ethernet connection. The microphone stations utilize the IED 501HH teardrop handheld microphone that includes a programmable push-to-talk switch. The station uses a metal magnet landing area for the 501HH to provide a storage position for the microphone.

In the standard configuration, the microphone stations can be mounted using a standard 2-gang electrical box or a 1-gang electrical box using the included plastic backbox. An optional weighted base (IEDA530DTB) is available for desktop mounting configurations.

The microphone stations have indicators for power, busy and ready states, as well as a beeper to alert the operator during certain states of the microphone station.

Buttons

The 5404CS digital microphone station features four selection buttons. These buttons are configured using the IED 5400 Designer software to function as one-touch action buttons to trigger any of the following types of announcements or messages:

- A live page to a designated zone group
- A recorded (delayed) page to a designated zone group
- A permanent message playback to a designated zone group (e.g., customer reminder or emergency message)

General Description

The IED 5404CS digital microphone station is a 4-button device for initiating audio / visual announcements, messages and pages with the 5400ACS Announcement Control Systems. The 5401CS is a push-to-talk switch only digital microphone station. It is a network appliance with a unique IP address that requires no configuration.

Just like IED's other digital microphone stations, the 5404CS/5401CS uses a single Ethernet interface for audio and control data. The 5404CS/5401CS is fully compatible with IEEE 802.3af standard for Power over Ethernet (PoE), allowing the microphone station to be powered directly from any standard off-the-shelf PoE switch.

These microphone stations, like all IED LAN-based GLOBALCOM® and 5400ACS components, are designed to maximize the benefits of a standard 100 Mbps Ethernet LAN-based network, using off-the-shelf switches and structured CAT5e or better cabling. The 5404CS/5401CS utilize Dante® technology for transporting high-quality, low-latency digital audio over Ethernet.

The 5404CS or 5401CS microphone stations may be used as part of an EN 54-16 listed life safety system; although the mic stations themselves are not EN 54-16 listed and cannot be used for the emergency locations. Instead, in a dual-use system, these microphone stations may be used for everyday paging functions.

Specifications

Electrical:

Frequency Response	+2 dB, -5 dB
22 Hz - 22 kHz, Input Level = -20 dBu	
Total Harmonic Distortion, THD	<1%
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	-14 dBu
Attack Time	35 mSec
Release Time	0.5 Sec
Analog-to-Digital Converter, A/D	24 bit
Sample Rate	48 kHz

Mechanical:

Desktop Size	5.13" W x 4.89" H x 5.66" D
Wall Mount Size	4.95" W x 4.95" H x 1.9" D
Wall Mount mounting	2-gang electrical box

Standards Utilized:

Full-Duplex Operations	IEEE 802.3x
Fast Ethernet, 100Mbps	IEEE 802.3u

The 5404CS/5401CS specifically uses 100Base-TX

Data Terminal Equipment Power	IEEE 802.3af
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via Media Dependent Interface (PoE)

Connecting Cable:

Digital Audio/Power/Control	CAT5e or better
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For distances to a maximum of 100 Meters (approximately 300 feet) to the connected switch. Cable installed and tested in accordance with AN-SI/TIA/EIA 568B Standards.

Environmental:

Operating Temperature Range	+32°F to +104°F (0°C to +40°C)
Storage Temperature Range	-40°F to +158°F (-40°C to +70°C)

Power Consumption	< 4 W
Supply Power	48 VDC

NOTE: These units are not compatible with 500, 510 or 520 series Announcement Control Systems (ACS), nor at this time with the GLOBALCOM® vACS systems.

Network Requirements

The 5404CS/5401CD digital microphone station utilizes Dante® technology licensed from Audinate Pty Ltd. Live audio on the data network is time sensitive and requires minimal latency through the network to ensure uninterrupted audio. The 5404CS/5401CS digital microphone station and Dante operate on Layer 3 (IP Layer) of the OSI Model, but only within a Local Area Network (LAN) or Virtual Local Area Network (VLAN). This audio traffic will not operate across a Layer 3 Router or above. The network should support Quality of Service (QoS) and Prioritization for best audio performance. All connections to the 5404CS / 5401CS digital microphone station must be full duplex 100 Mbps Ethernet.