



Description

The IED 524 digital microphone station is a 4-button device for initiating audio/visual announcements, messages, and pages with the GLOBALCOM and vACS Series Announcement Control Systems. It is a network appliance with a unique IP address that simplifies installation and configuration. The 524 features four zone group selection buttons plus a push-to-talk button located on the hand-held microphone.

Just like IED's other digital microphone stations, the 524 uses a single Ethernet interface for audio and control data. The 524 station is fully compatible with IEEE 802.3af standard for Power over Ethernet (PoE), allowing the 524 to be powered directly from any standard off-the-shelf PoE switch. The processing power for the 524 comes from the onboard 32-bit processor. This powerful processor manages the input buttons, Ethernet interface, audio signal processing, and self-test diagnostics.

This, and all IED LAN-based GLOBALCOM 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 524 Digital Microphone Station utilizes CobraNet[®] technology.

Ordering Options

IEDA524-H	4-button microphone station with handheld microphone for wall-mount applications
IEDA520DTB	Optional base for desktop mounting applications

Features

The 524 digital microphone station provides immediate digitization of full bandwidth audio and transmission over a standard Ethernet connection. It utilizes the IED 501HH teardrop handheld microphone that includes a programmable push-to-talk button. The station uses a metal magnet landing area for the 501HH to provide a storage position for the microphone.

In the standard configuration, it 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 (IEDA520DTB) is available for desktop mounting configurations.

Buttons

The 524 series digital microphone station features four selection buttons. These buttons are configured using the IED announcement control system software to function as one-touch action buttons to trigger any of the following types of announcements or messages:

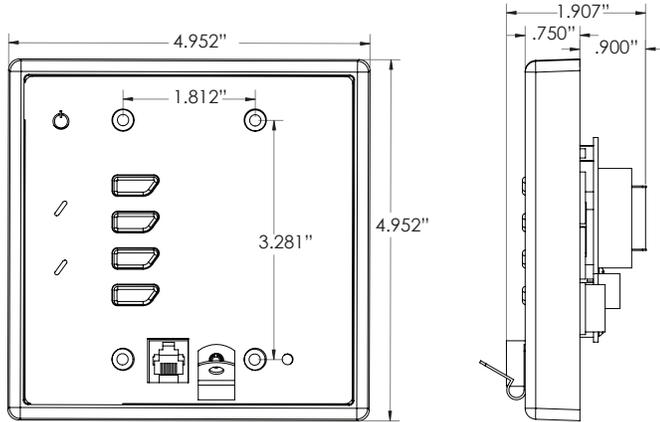
- A live page to a designated zone group
- A recorded page to a designated zone group
- A permanent message playback to a designated zone group (e.g., customer reminder or emergency message)
- Any action type available in the GLOBALCOM configuration software

Network Requirements

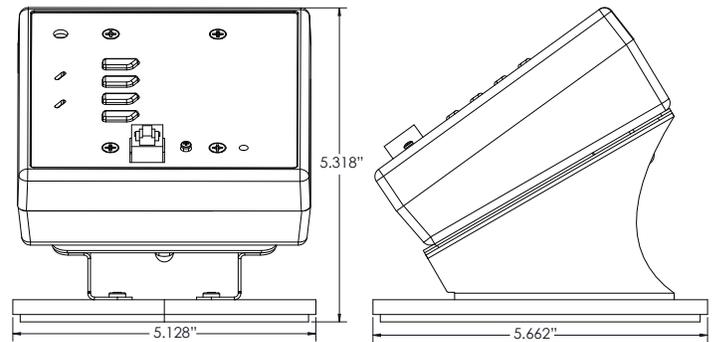
The 524 digital microphone station utilizes CobraNet[®] technology licensed from Cirrus Logic[®].

Live audio on the data network is time sensitive and requires minimal latency through the network to ensure uninterrupted audio. The 524 digital microphone station and CobraNet operate on Layer 2 (MAC Layer) of the OSI Model. This traffic will not operate on a Layer 3 Router or above. VLAN's (Virtual Local Area Networks) may be required for managing traffic as well as Quality of Service (QoS) and Prioritization configuration of network switches. All connections to the 524 digital microphone station must be full duplex 100 Mbps Ethernet auto-negotiation.

IEDA524-H Dimensions



IEDA524-H with optional IEDA520DTB Dimensions



Specifications

Electrical

Frequency Response	±0.5 dB
<i>22 Hz - 22 kHz, Input Level = 0 dBu</i>	
Total Harmonic Distortion, THD	<0.5%
<i>22 Hz - 22 kHz, Input Level = 0 dBu</i>	
Signal-to-Noise Ratio, S/N	>85 dB
<i>22 Hz - 22 kHz, Input Level = 0 dBu</i>	
Compressor	
Compression Threshold	-15 dBu
Ratio	5:1
Attack Time22 mSec
Release Time	1 Sec
Maximum Output (Line Output)	+5 dBu
Analog-to-Digital Converter, A/D	24 bit
Internal Processing	32 bit, Floating Point
Sample Rate	48 kHz
Latency (Through a maximum of 6 network switch hops)	5.7 mSec

Mechanical

Desktop Size	5.13" W x 5.32" H x 5.66"D
<i>(Desktop mounting requires optional IEDA520DTB)</i>	
Wall Mount Size	4.95" W x 4.95" H x 1.9" D
Wall Mount mounting	2-gang electrical box
	1-gang electrical box (using adapter backbox)

Standards Utilized

Full-Duplex Operations	IEEE 802.3x
Fast Ethernet, 100Mbps	IEEE 802.3u
<i>The 524 Series specifically uses 100Base-TX</i>	
Data Terminal Equipment Power	IEEE 802.3af
<i>via Media Dependent Interface (PoE)</i>	

NOTE: This unit is **not** compatible with 500, 510, or 520 series Announcement Control Systems (ACS).

Connecting Cable

Digital Audio/Power/Control CAT5e or better
For distances to a maximum of 100 Meters (approximately 300 feet) to the connected switch. Cable installed and tested in accordance with ANSI/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

Supply Power. < 2 W
Supply Voltage = 48 VDC



IEDA524-H shown with optional IEDA520DTB base