



12407 Mukilteo Speedway, Ste. 130, Lynnwood, WA 98087  
 Phone: (425) 322-3170 Fax: (877) 721-6107  
 info@amkspeakers.com www.amkspeakers.com

AMK Commercial Series

## DT84-C

Dante™ Enabled Network Audio  
 8" Coaxial Loudspeaker  
 2 x 2 lay in tile grill system  
 (Preliminary)



### Features:

- Network enabled Loudspeaker by Dante™
- PoE+ powered without a need for local power.
- RJ45 connection for audio from PoE+ Ethernet.
- 6" polypropylene cone with inverted rubber surround.
- 1" Polyamide dome tweeter
- Weather and water resistant.
- Two Channel Audio
- Plenum Rated

The AMK DT84-C loudspeaker is powered by a POE+ network amplifier with Dante™ input. It is a 2x2 lay in grille speaker system for easy ceiling tile installation. No external power supply is required. The speaker system has a Class D amplifier which provides efficient use of power. This system will solve the issue of having to provide a separate amplifier or I/O interface for speaker installations.

One PoE+ amplified speaker can power a total of (4) speakers, including (3) additional passive speakers, with one speaker per audio zone.

The CX802 loudspeaker driver has excellent dispersion, wide bandwidth and a smooth frequency response which makes this the top choice for today's overhead commercial applications.

This assembly can be used in wide range of projects for paging and background music applications. The DT84-C is ideal for hotels, education, hospitals, retail stores, performing art centers, restaurants, airports, houses of worship, and board rooms. The end users will appreciate both the sound and visual quality of these speakers.

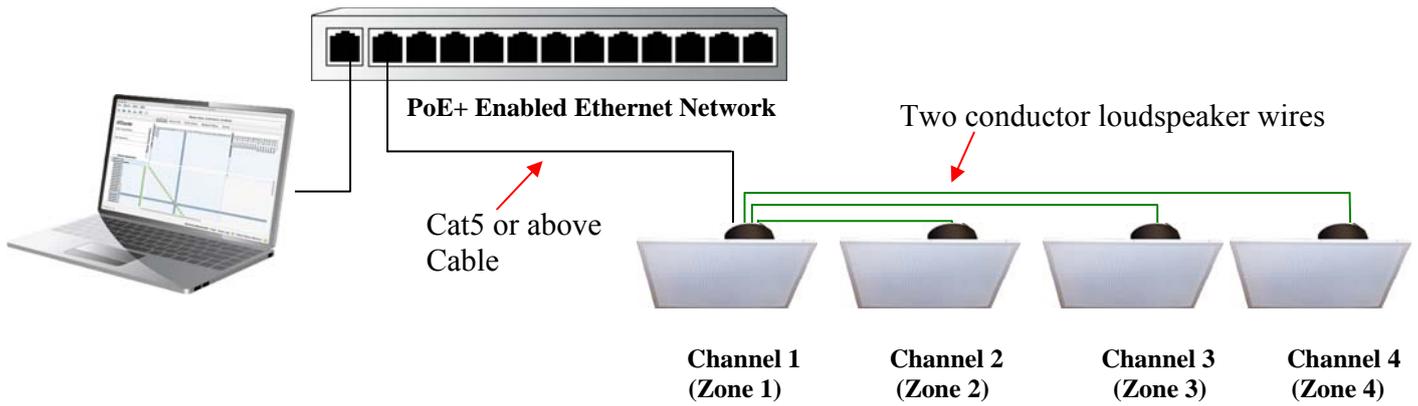
For details on Dante Networking, please visit:

<https://www.audinate.com/resources/networks-switches>

System Specification		AMK Dante Ceiling Speaker Advantage	
Frequency Response	100 Hz - 20 kHz (+/- 3dB)	* 4 channels broadcasting system for four separate zones.	
Maximum SPL at 1M	105 dB	* No need to have separate dante enabled amp or I/O interface	
Voice-coil diameter	1."	* A Single RJ45 connection to main active speaker with two conductor wire connection to each of the passive speakers.	
Magnet	Barium Ferrite (for high efficiency of the speaker driver)	* Highly efficient speaker driver due to barium ferrite magnet.	
Nominal Coverage Angle (500Hz - 4kHz Average)	110° Conical Average	* Cost effective simple one system solution.	
Audio Input	Dante Audio via Ethernet	* 2' x 2' ceiling tile lay in system for fast installation and visually attractive for tile ceiling environment	
Output Power	10W / Channel (5W per speaker)		
Signal to Noise Ratio	>99dB		
Power consumption	2 Watts Standby, 25 Watts Maximum		
Input connector on active speaker	RJ-45		
Maximum wire length to companion speakers	100ft at 18AWG		
PoE+	IEEE 802.3at-2009		
Controls	Dante™ controller software		
Metal Enclosure	Plenum Rated		

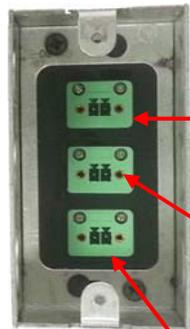
Physical Speaker Data		Frequency Response	
Tweeter	13mm polyamide hard dome		
Woofer Cone	Polypropylene		
Surround Material	Inverted rubber Surround		
Crossover Frequency	5.5 kHz		
Enclosure Depth with Handybox	8.75"		
Grille dimension	24.0" x 24.0"		
Net weight of the speaker	17.0 lbs		
Shipping Weight (1 box of 2 speakers)	44.0 lbs		

## CHANNEL ZONING ILLUSTRATION



## SPEAKER CONFIGURATION \*

### Passive Speaker Connections:



Audio output to one (1) **Channel 2 (Zone 2)** passive speaker.

Audio output to one (1) **Channel 3 (Zone 3)** passive speaker.

Audio output to one (1) **Channel 4 (Zone 4)** passive speaker.

2 position Phoenix connector for audio signal input from amplified speaker. 3 speakers total. Each speakers will have its own audio channels.

RJ 45 connection jack for PoE+

Three (3) status lights

- Power
- Dante
- Status



Seismic Safety Strap

### Dante Enabled PoE+ Amplified Speaker

Seismic Safety Strap



### (3) Companion Speakers

## Architect's & Engineer's Specifications

The powered loudspeaker system shall be **AMK DT84-C**. The speaker shall feature Audinate / Dante™ network audio signal that broadcasts 4 channels of audio. The speaker system shall consist of a set of 4 speakers with separate channels of audio network broadcast to each speakers.

The Network switch must have PoE+ to provide the power that is needed for the system.

The active unit of the system shall have one RJ-45 jack for network audio connection. Then there shall be (3)three of the two position phoenix type (euro) connections. Each of the connections shall go the passive speakers at different zones.

The transducer in the loudspeaker system shall be AMK CX 802 coaxial loudspeaker. The woofer shall have a 20 oz. Barium Ferrite magnet. The two reproducer sections shall be coupled through a built-in capacitor bypass crossover. The crossover frequency shall be at 5.5 kHz. The low frequency reproducer shall have 1" (25.4mm) voice coil and the high frequency reproducer shall have 0.51" (13mm) voice coil.

The system shall have a frequency response of 55 Hz- 20 kHz (+/- 5dB). The power handling shall be 40watts at 8 ohm impedance. The sensitivity shall be 91dB at 1watt / 1meter.

The system shall be on 2' x 2' metal perforated grille and 7" deep powered speaker enclosure attached on the back of the grille. The depth of whole speaker assembly 8.75" including the junction box attached.

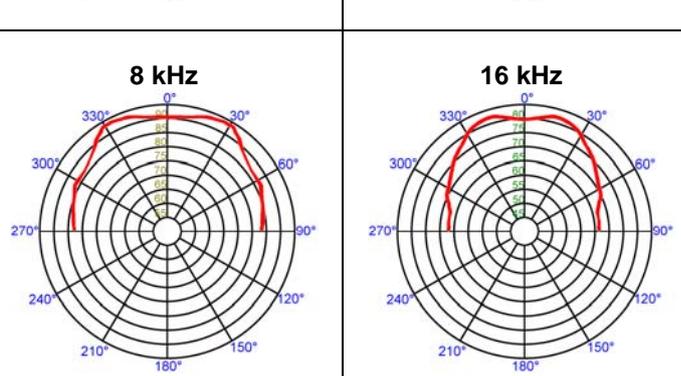
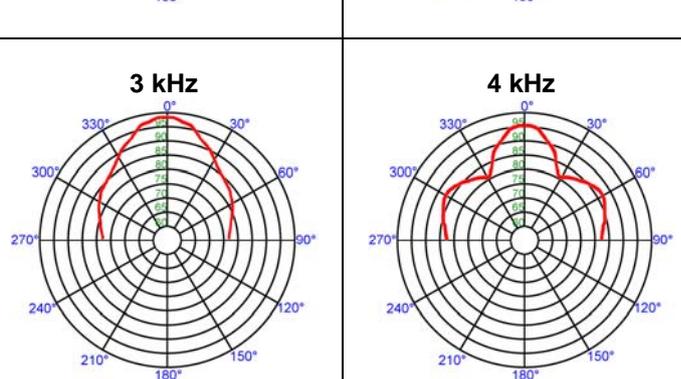
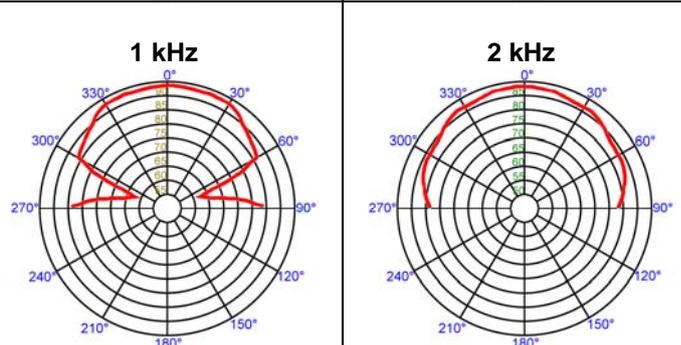
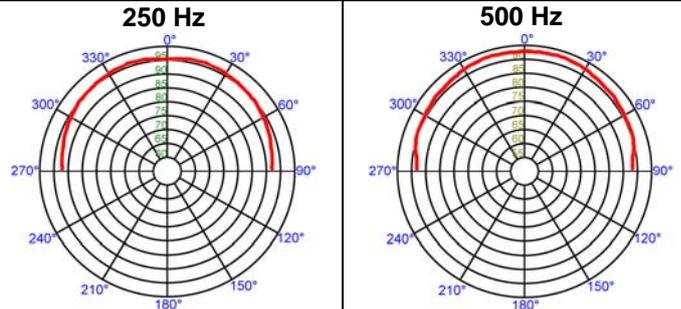
The total weight of the each of the speaker system shall not exceed 17.0 lbs.

The loudspeaker system shall be AMK Innovations model **DT84-C**.

**Conforms to EIA Standards: RS-276-A, RS-278-B, RS-426-A.**

## Polar Responses

(Measurement done in house)



Freq	Deg	Q	DIdB
250 Hz	98°	5.1	7.1
500 Hz	95°	5.7	7.5
1 kHz	55°	9.9	10.0
2 kHz	55°	8.2	9.2
3 kHz	34°	14.4	11.6
4 kHz	25°	18.0	12.6
8 kHz	65°	5.1	7.1
16 kHz	52°	6.9	8.4