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AMK Commercial Series

## DS84

Network powered speakers  
Dante™ and AES67 Enabled Network Audio  
8" Coaxial Loudspeaker Assembly



### Features:

- Network enabled Loudspeaker by Dante™
- PoE+ powered without a need for local power.
- RJ45 connection for audio from PoE+ Ethernet.
- 8" polypropylene cone with inverted rubber surround.
- 1" Polyamide dome tweeter
- Weather and water resistant.
- 4 Channel Audio
- UL 2043 Listed Enclosure

The AMK DS84 is a Dante™ and AES67 audio network addressable and self-amplified ceiling speaker system. No external power supply is required. The speaker includes a Class D amplifier which provides efficient use of power. The assembly comes with AMK's CX 802, highly efficient coaxial loudspeaker. 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 DS84 is ideal for hotels, education, hospitals, retail stores, performing art centers, restaurants, airports, houses of worship, and board rooms.

For details on Dante Networking, please visit:

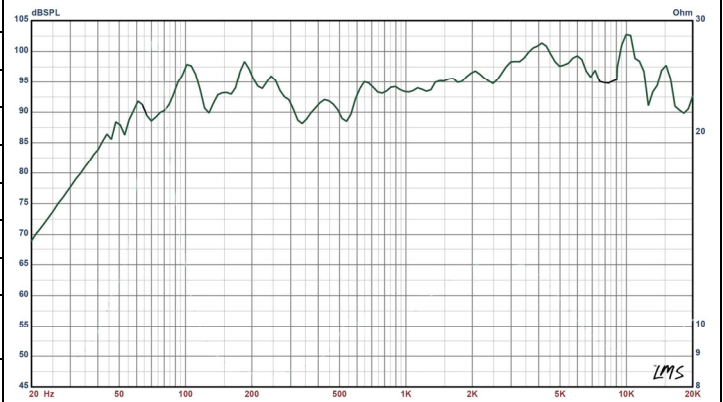
<https://www.audinate.com/resources/networks-switches>

Replacing previous models:

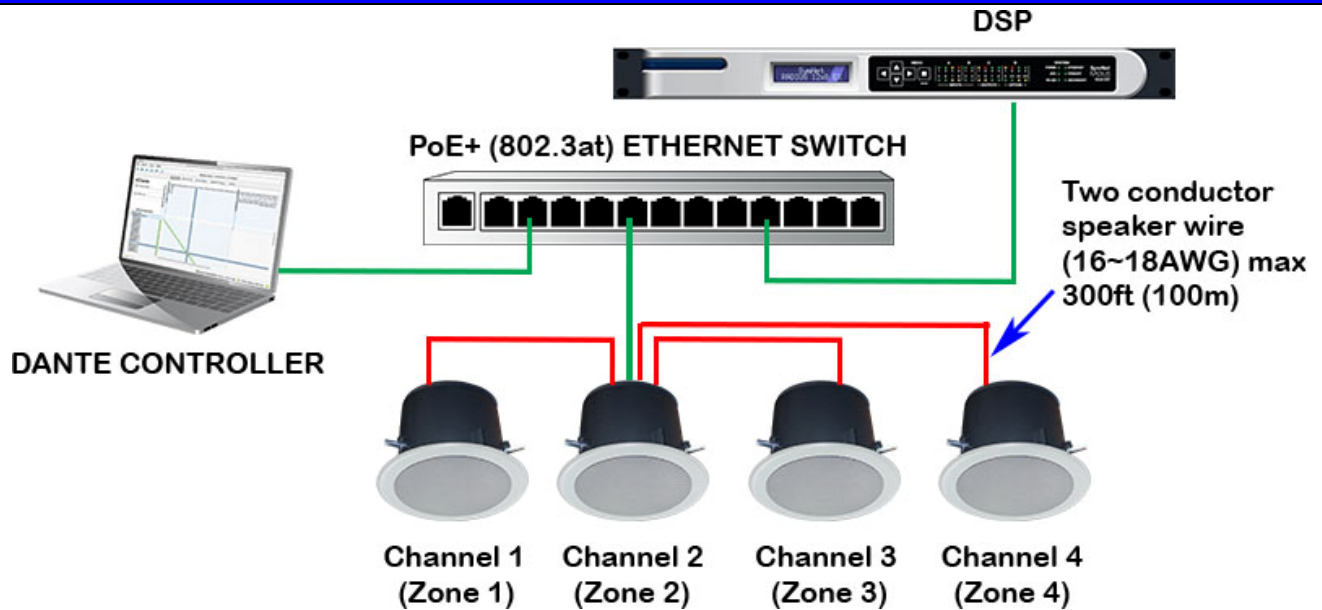
**DS84-B / DS84-B-X**

**DS84-C / DS84-C-X**

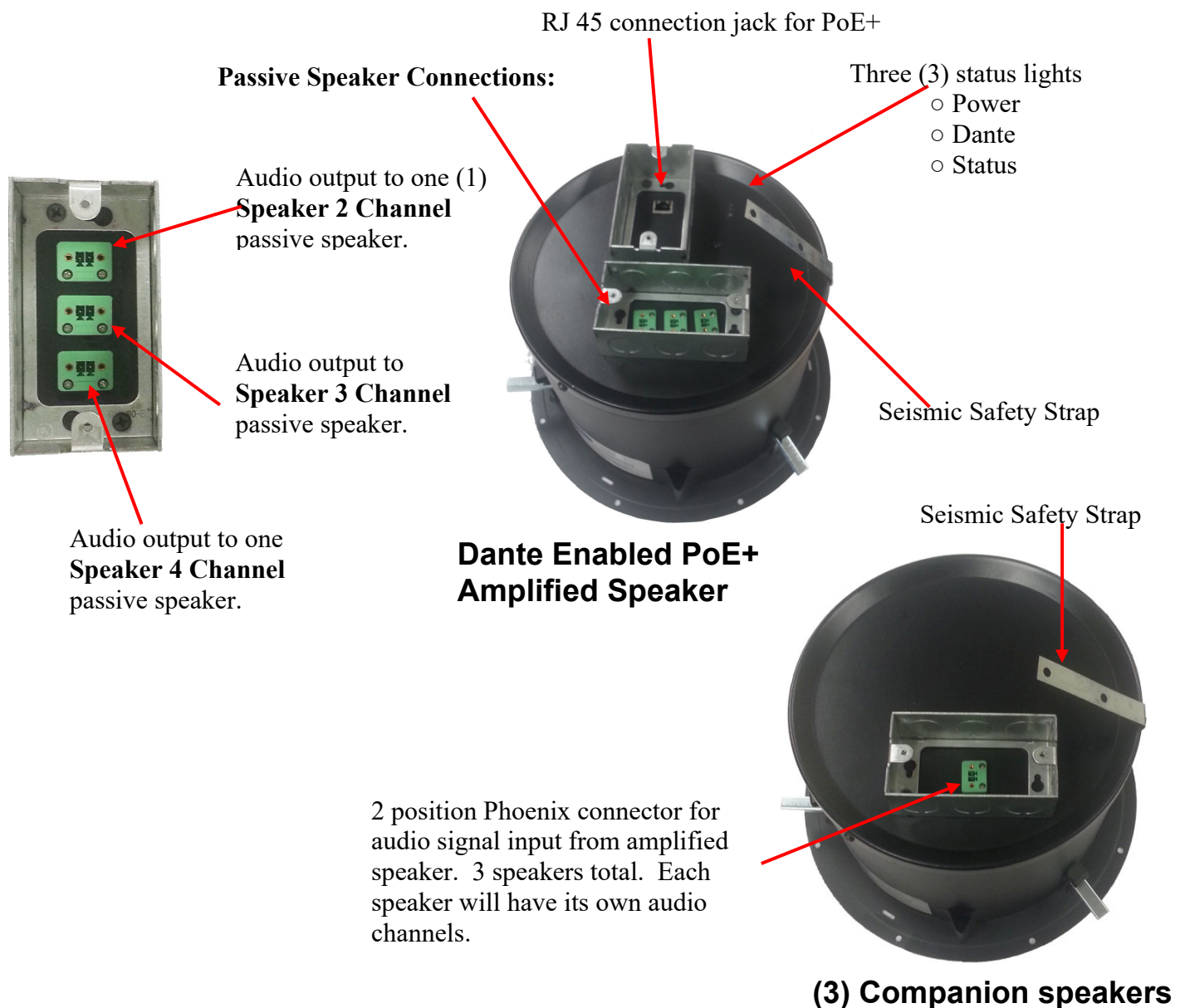
System Specification		AMK Dante Ceiling Speaker Advantage
Frequency Response	100 Hz - 20 kHz (+/- 3dB)	<ul style="list-style-type: none"><li>* 4 channels broadcasting system for four separate zones.</li><li>* No need to have separate dante enabled amp or I/O interface</li><li>* A Single RJ45 connection to main active speaker with two conductor wire connection to each of the passive speakers.</li><li>* Highly efficient speaker driver due to barium ferrite magnet.</li><li>* Cost effective simple one system solution.</li></ul>
Maximum SPL at 1M	105 dB	
Voice-coil diameter	1."	
Magnet	Barium Ferrite (for high efficiency of the speaker driver)	
Nominal Coverage Angle (500Hz – 4kHz Average)	110° Conical Average	
Audio Input	Dante Audio via Ethernet	
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	300ft (100m) at 16-18AWG	
PoE+	IEEE 802.3at-2009	
Controls	Dante™ controller software	
Certification and Listing	UL 2043, CE, RoHS	

Physical Speaker Data		Frequency Response
Tweeter	13mm polyamide hard dome	
Woofer Cone	Polypropylene	
Surround Material	Inverted rubber Surround	
Crossover Frequency	5.5 kHz	
Depth	8.25"	
Diameter of the Enclosure	9.25"	
Diameter of the Grille	12.75"	
Enclosure Mounting	Metal Swivel Clamp	
Net Weight of single speaker (Grille, Back Enclosure, and Loudspeaker)	10.0 lbs	
Shipping Weight (2 boxes of 4 speakers)	60.0 lbs	

## CHANNEL ZONING ILLUSTRATION

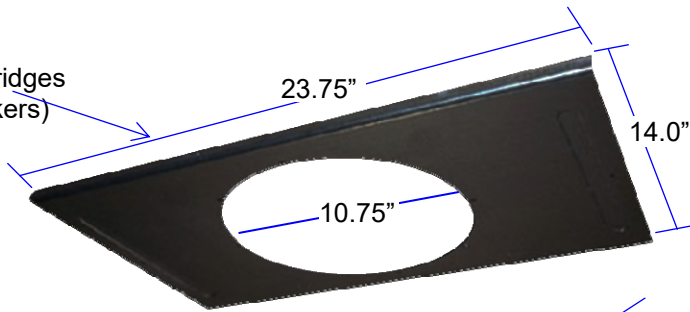


## SPEAKER CONFIGURATION \*



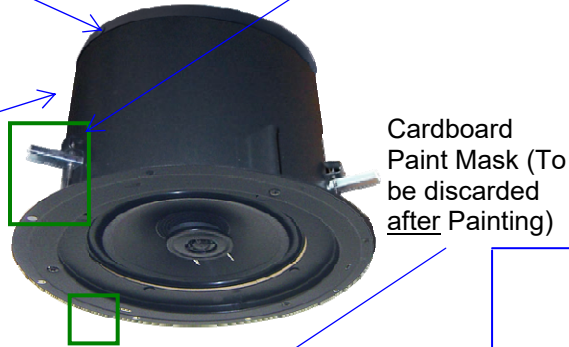
# INSTALLATION SCHEMATICS

Standard Ceiling Tile Bridges  
(Included for all 4 speakers)

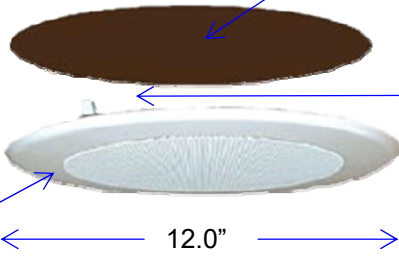


Plenum Compatible  
Back Enclosure  
for **UL 2043** Listed for  
Plenum Fire Rating.

Guide for alignment of  
enclosure to tile bridge  
for grille installation



White Perforated  
Metal Grille



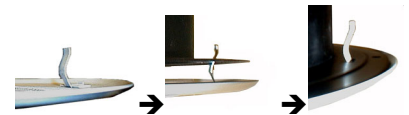
For hard lid ceiling  
installations – Retro fit,  
(drywall, gypsum, wood  
or other non-removable  
material) C-ring, **SACSD**,  
is available.

Model No: **DS84-S**  
(Contact us for pricing  
this model)

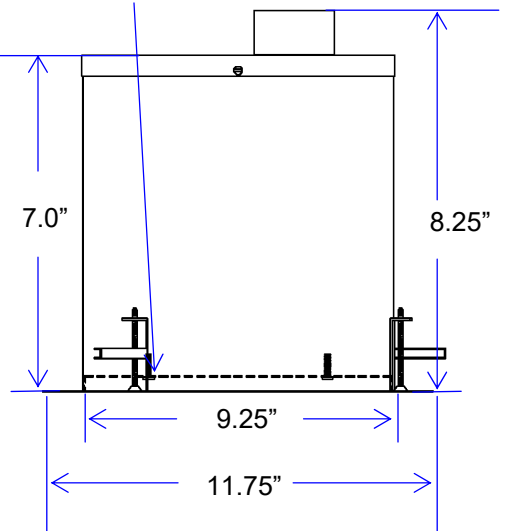


The all-metal  
swivel clamp  
makes it easy to  
install the  
speaker  
assembly to the  
ceiling

The clip-on mechanism on the  
grille makes it easy to install the  
grille to the back enclosure. This  
is AMK's revolutionary "snap-on"  
grille installation system.



Recessed speaker baffle plate



## Architect's & Engineer's Specifications

The powered loudspeaker system shall be **AMK DS84 (DS84-S** for mounting C-ring version). 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 2 speakers for each channel of audio broadcast.

The Ethernet network 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 to 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 depth of all 4 enclosures shall be 8.25 inches. The rim diameter shall be 11.75". The enclosure diameter shall be 9.25". The depth of the enclosures shall not exceed 8.25 inches. The system shall include 4 tile bridges. The system shall have a metal strap for attachment to a structure for seismic protection.

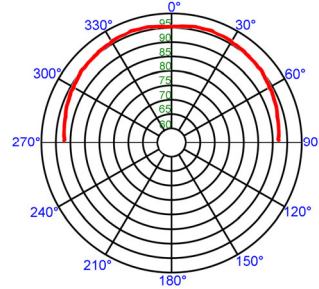
The total weight of the each of the speaker enclosure, tile bridge, and grille shall not exceed 9.0 lbs.

The loudspeaker system shall be AMK Innovations model **DS84 (DS84-S** for mounting C-ring version).

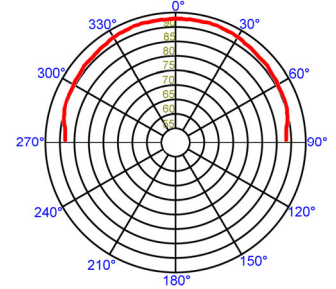
**Conforms to EIA Standards: RS-276-A, RS-278-B, RS-426-A.**

## Polar Responses (Measurement done in house)

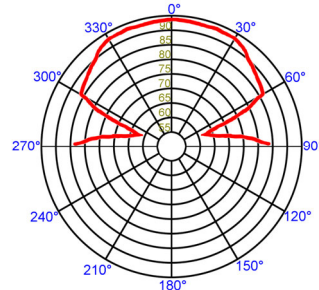
**250 Hz**



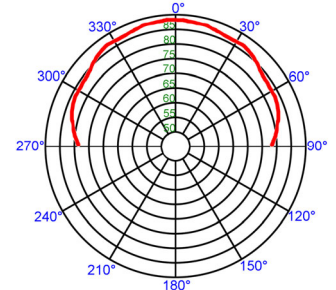
**500 Hz**



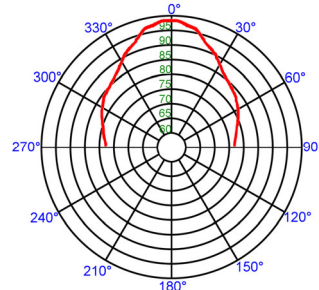
**1 kHz**



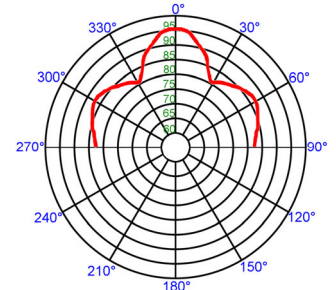
**2 kHz**



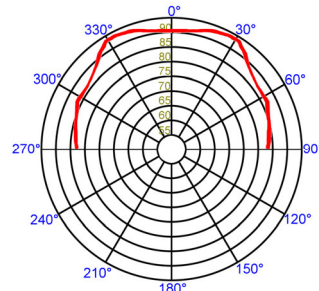
**3 kHz**



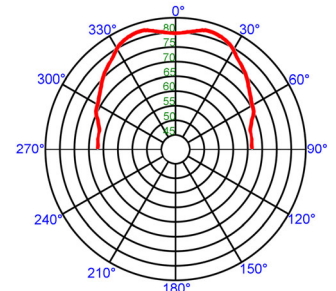
**4 kHz**



**8 kHz**



**16 kHz**



**Freq**

**Deg**

**250 Hz**

**98°**

**500 Hz**

**95°**

**1 kHz**

**55°**

**2 kHz**

**55°**

**3 kHz**

**34°**

**4 kHz**

**25°**

**8 kHz**

**65°**

**16 kHz**

**52°**

**Freq**

**Deg**

**250 Hz**

**98°**

**500 Hz**

**95°**

**1 kHz**

**55°**

**2 kHz**

**55°**

**3 kHz**

**34°**

**4 kHz**

**25°**

**8 kHz**

**65°**

**16 kHz**

**52°**