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AMK Commercial Series

## PT 615-CFM-2-RVC (-P)

2x2 Self Amplified

6.5" Coaxial Loudspeaker Assembly



### Features

- \* Systems install quickly into suspended tile ceilings and are supported by the T-bar grid.
- \* Systems include a complete powered speaker with UL based plenum enclosure.
- \* Fine perforated grilles blend with ceiling tiles and provide excellent acoustic transparency.
- \* Self powered with 40 watt Class D amplifier

The **AMK PT615-CFM-2-RVC** powered speakers feature a 40 watt Class D digital design amplifier, with > 75% efficiency for the main speaker. These units are available as single master speakers or sets with an unpowered companion speaker (**PT615-CFM-2-RVC-P**) The speaker combines high performance, power handling, and a very smooth response.

The loudspeaker driver, CX602, is one of the few transducers in the commercial sound industry that produces and meets the standards of recording studio. Excellent dispersion, wide bandwidth, and a smooth frequency response make this the top choice for today's overhead commercial applications.

There are wide ranges of the application for this unit, especially in educational markets and corporate boardrooms where direct input of the signal from the processor is desired (i.e., projectors, laptops, or any line level device)

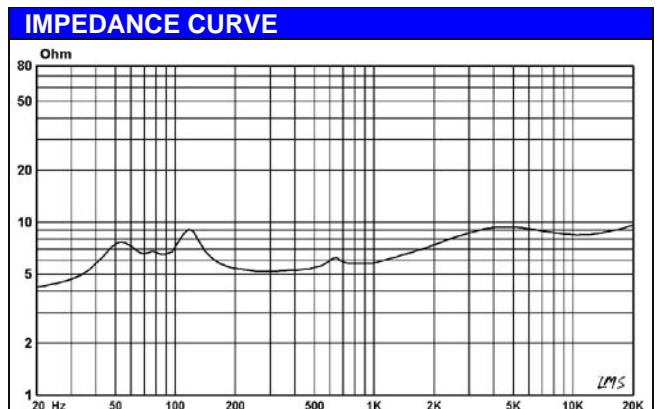
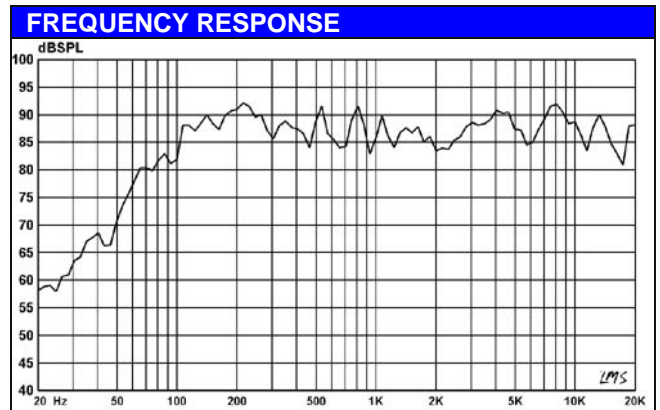
They are shipped ready to install and require no speaker cut-outs in the tile or time consuming assembly. 2' x 2' Systems are designed to replace a standard 2' x 2' tile and are supported by the T-bar grid.

Assemblies include a factory wired speaker mounted to a 2' x 2' subplate with a fine perforated grille and mounted AMK powered speaker enclosure. The backbox is offset to one side of the 2' x 2' grille allowing it to be rotated in the ceiling to install around plenum obstructions. Several options are available for the line level audio and power connections. Each is designed and manufactured to assure consistent performance with clear intelligibility and wide dispersion.

Architectural Grilles feature a fine perforated pattern for a clean unobtrusive appearance. Grilles are engineered to provide maximum free-air space for excellent speaker sound transmission while achieving virtually invisible presentation of the speaker in new or exiting tile ceilings. 2' x 2' grilles simply replace a 2' x 2' tile. All are formed from perforated steel and finished in white powder epoxy for long lasting appearance.

Specifications	
Frequency Response	65 Hz - 20 kHz
Voice-coil diameter	1"
Average Beamwidth @ 2 kHz	144 deg.
Magnet Weight	13 oz
Magnet Material	Barium Ferrite
Tweeter	13mm Polyamide Soft Dome
Woofer Cone	Polypropylene
Surround Material	Inverted Rubber
Crossover Frequency	5.0 kHz
Depth of the Enclosure	7 in.
Dimension of Grille	2' x 2'

Amplifier Specifications	
Amplification	40 watt Class D design amplifier
Amplifier Efficiency	> 75%
Total Harmonic Distortion	< 0.2%
Signal to Noise Ratio	>95dB
Protection	Protected as to short circuit to supply and ground, as well as minimum current
Controls	Input potentiometer level adjustment



## MODEL CONFIGURATION

Five position terminal block for lines that are used for 5 inputs for remote volume control for balanced audio



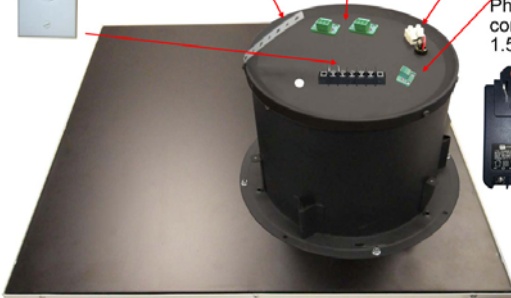
Seismic metal strap

3.81mm 3 position Phoenix type connector (Two balanced inputs)

Screw terminal block connectors for companion speaker connection

3.81mm two position Phoenix type connector for 12volt 1.5A power input

The speaker comes with one screw mount with the eyebolt for secure mount to the power outlet. This is light weight, 24VDC 1.0A power supply.



**Powered Speaker**

Seismic metal strap

Screw terminal block connectors for companion speaker connection



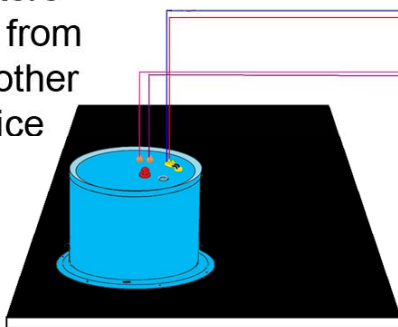
(The **PT615-CFM-2-RVC-P** version comes with the companions speaker as a set of 2 speakers)

<b>Power Supply</b>	External 12Volt w/ Screw Terminal	<b>Signal Input</b>	One balanced input
<b>Power Connection</b>	3.81mm two position Phoenix type connector	<b>Companion speaker input/output connections (Model No: PT615-CFM-2-RVC-P)</b>	Screw terminal block connectors
<b>Input Connection</b>	(2) 3.81mm three position Phoenix type connectors	<b>Input Level Adjustment</b>	External with five position inputs for balanced audio control.

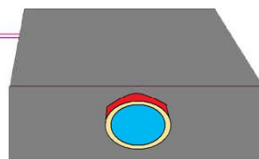
## PT615-CFM-2-RVC ILLUSTRATION

Typical layout of a classroom or a board room A/V system using AMK PT series speakers

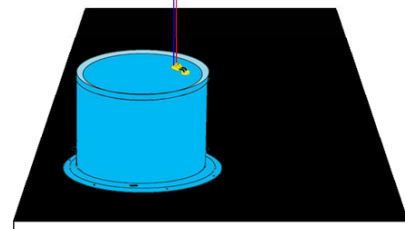
Line level stereo signal linked from projector or other signal device



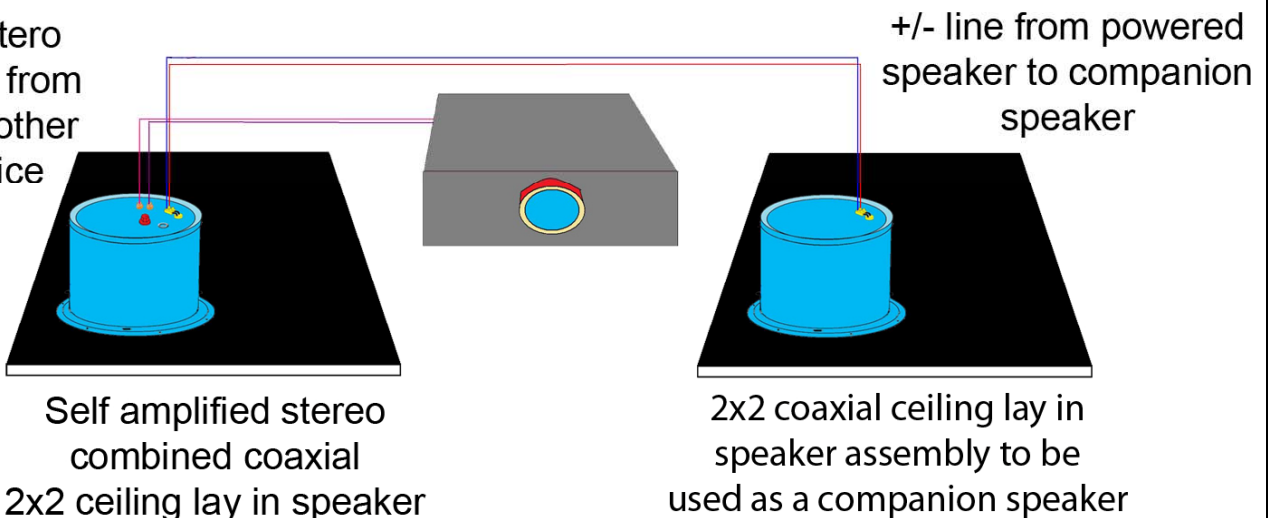
Self amplified stereo combined coaxial 2x2 ceiling lay in speaker



+/- line from powered speaker to companion speaker



2x2 coaxial ceiling lay in speaker assembly to be used as a companion speaker



## Architect's & Engineer's Specifications

## Polar Responses

The powered loudspeaker system shall be **AMK PT 615-CFM-2-RVC (-P)**. The speaker shall feature a 40watt Class D design amplifier, with >75% efficiency for the speaker. The powered speaker systems shall be one amplified speaker with option of one other companion speaker.

The loudspeaker system shall have a white metal round grille with a mounting spring tab snaps into the rim of the enclosure.

The powered unit of the system shall have two 3.81mm three position phoenix type connectors for balanced audio input. The input level shall be control by the external potentiometer provided with mounting plate. The power connection shall be a 3.81mm two position phoenix type connector. The system shall have 12 volt 1.5 Amps screw mount power supply.

The loudspeaker unit in the system shall be of the coaxial type with an 6.5" woofer of polypropylene, an inverted rubber surround, and a 1" polyamide soft dome tweeter mounted on a post. The transducer in the loudspeaker system shall be AMK CX 602 coaxial loudspeaker. The woofer shall have a 13 oz. (369g) Barium Ferrite magnet. The two reproducer sections shall be coupled through a built-in capacitor bypass crossover.

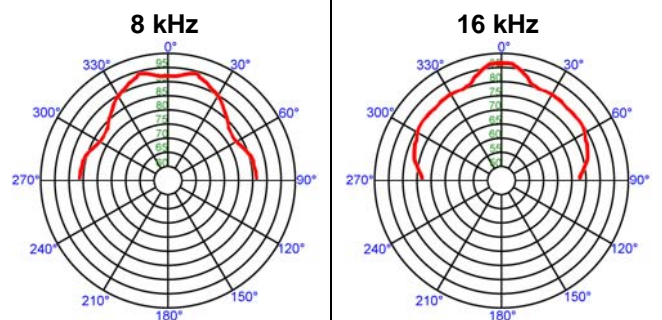
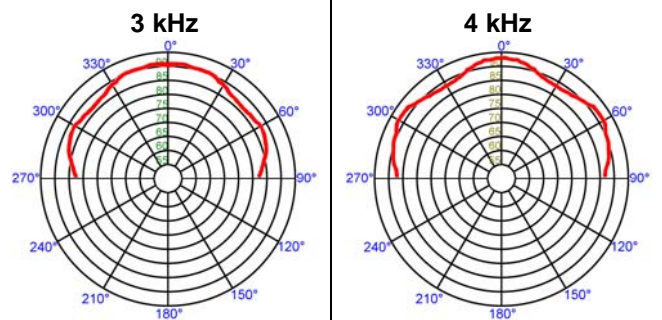
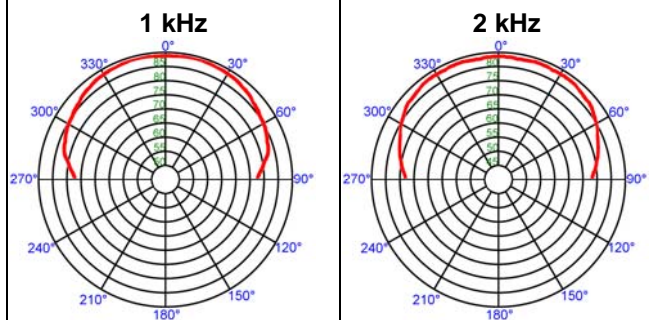
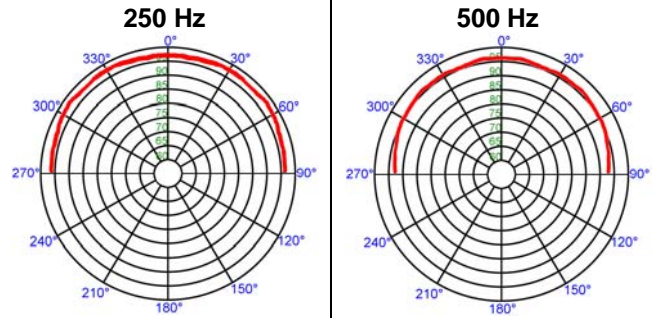
The crossover frequency shall be at 5.0 kHz. The low frequency reproducer shall have 1" (25.4mm) voice coil and the high frequency reproducer shall have 0.51" (13mm) voice coil. The system shall have a frequency response of 65 Hz- 20 kHz (+/- 5dB). The sensitivity shall be 91dB at 1watt / 1meter.

The loudspeaker system shall be on a 2' x 2' lay in system with perforated white grille. The enclosure of the systems shall be on the back of the grille, not extending 7 inches in depth. The diameter of the enclosure shall be 9.25" The system shall have metal strap attachment to the structure for seismic protection.

The total weight of the each unit system shall not exceed 10.0 lbs.

The loudspeaker system shall be AMK Innovations model **PT 615-CFM-2-RVC**.

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



Freq	Deg	Q	DIdB
250 Hz	100°	3.8	5.8
500 Hz	96°	4.8	6.8
1 kHz	79°	6.8	8.3
2 kHz	72°	6.7	8.2
3 kHz	66°	9.2	9.6
4 kHz	86°	8.4	9.2
8 kHz	40°	7.1	8.5
16 kHz	16°	15.3	11.8