



12407 Mukilteo Speedway, Ste. 130, Lynnwood, WA 98087  
 Phone: (800) 438-4026 Fax: (877) 721-6107  
 info@amkspeakers.com www.amkspeakers.com

AMK Commercial Series

## PT 802-SM (-P)

2x2 Self Amplified  
 8" 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 PT802-SM** 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 (**PT802-SM-P**). The speaker combines high performance, power handling, and a very smooth response.

The loudspeaker driver, CX802, 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)

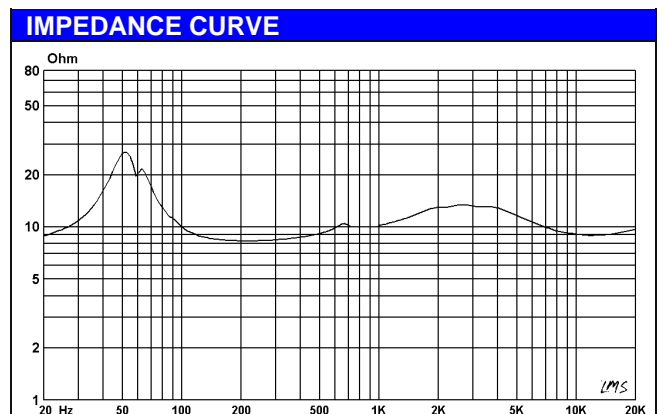
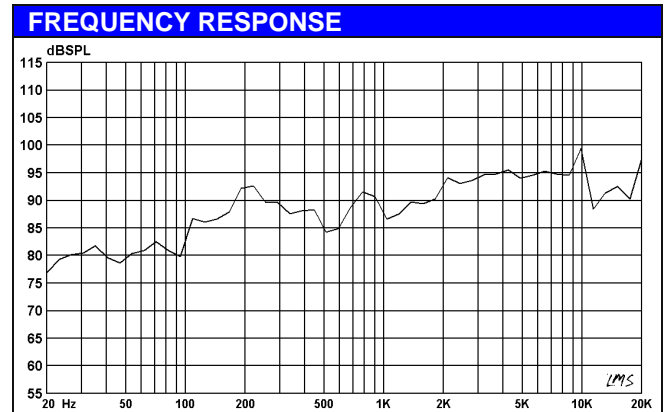
They are shipped ready to install and require no speaker cut-outs in the tile or time consuming assembly. 2' x 2' Systems are designed to replace a standard 2' x 2' tile and are supported by the T-bar grid.

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.

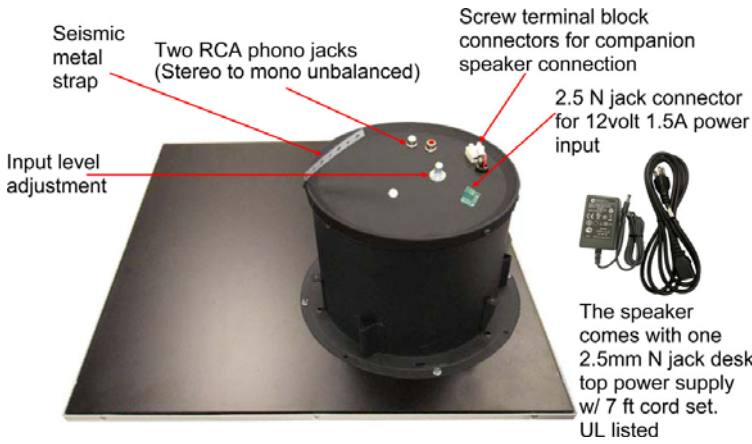
Architectural Grilles feature a fine perforated pattern for a clean unobtrusive appearance. Grilles are engineered to provide maximum free-air space for excellent speaker sound transmission while achieving virtually invisible presentation of the speaker in new or existing tile ceilings. 2' x 2' grilles 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	55 Hz - 20 kHz
Voice-coil diameter	1"
Average Beamwidth @ 2 kHz	110 deg.
Magnet Weight	20 oz
Magnet Material	Barium Ferrite
Tweeter	13mm Polyamide Soft Dome
Woofer Cone	Polypropylene
Surround Material	Inverted Rubber
Crossover Frequency	5.5 kHz
Depth of the Enclosure	7 in.
Diameter of the Grille	12.75 in.
Enclosure Mounting	Metal Swivel Clamp

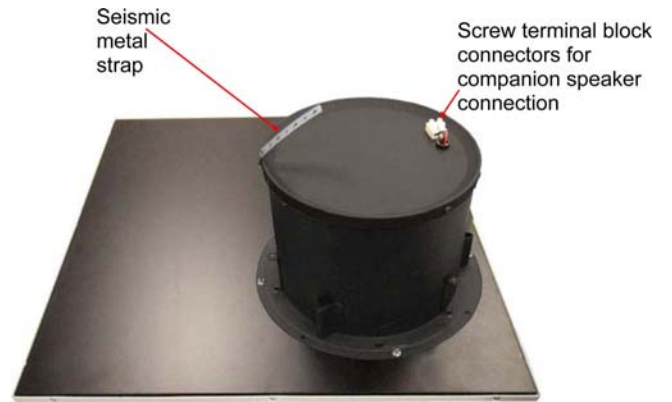
Amplifier Specifications	
Amplification	40 watt Class D design amplifier
Amplifier Efficiency	> 75%
Total Harmonic Distortion	< 0.2%
Signal to Noise Ratio	>95dB
Protection	Protected as to short circuit to supply and ground, as well as minimum current
Controls	Input potentiometer level adjustment



## MODEL CONFIGURATION



**Powered Speaker**

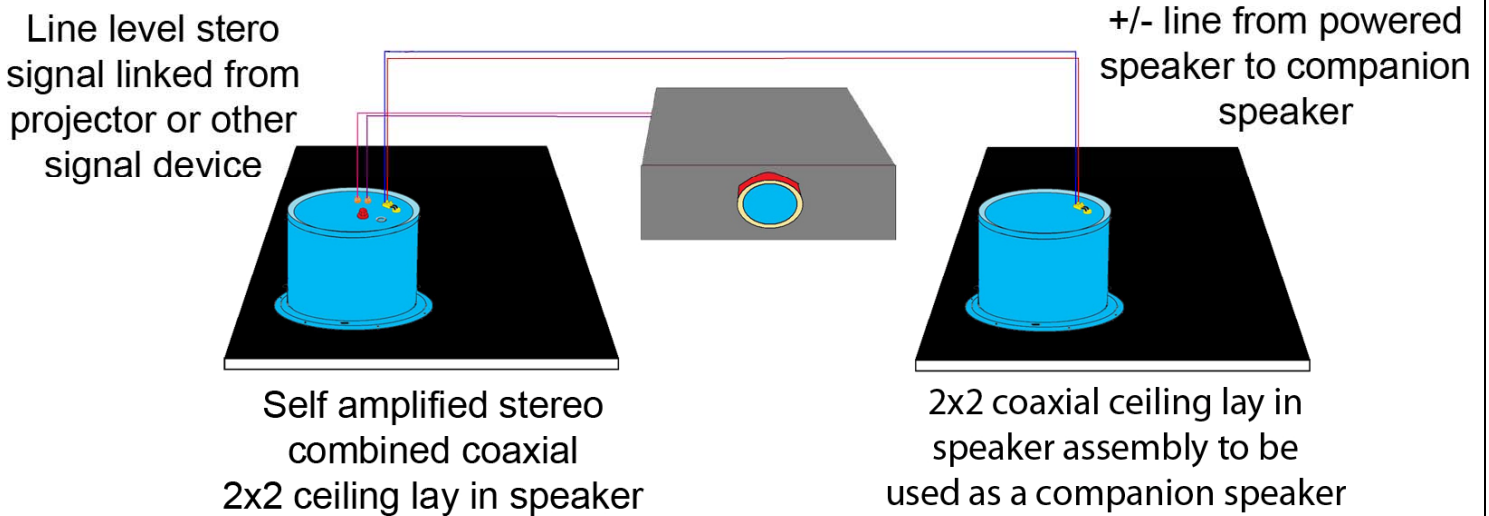


(The **PT802-SM-P** version comes with the companions speaker as a set of 2 speakers)

<b>Power Supply</b>	External 12 Volt	<b>Signal Input</b>	Stereo to Mono Unbalanced
<b>Power Connection</b>	2.5mm N jack desk top power supply	<b>Companion speaker input/output connections (Model No: PT802-SM-P)</b>	Screw terminal block connectors
<b>Input Connection</b>	Two RCA phono jacks	<b>Input Level Adjustment</b>	Internal

## PT802-SM ILLUSTRATION

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



## Architect's & Engineer's Specifications

The powered loudspeaker system shall be **AMK PT 615-SM (-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 RCA phono jacks for unbalanced audio input. The input level shall be control by the internal potentiometer. The power connection shall be a 2.5mm N jack. The system shall have 12 volt 1.5 Amps line level desktop power supply.

The transducer in the loudspeaker system shall be AMK CX 802 coaxial loudspeaker. The woofer shall have a 40 oz. (1.13 Kg) 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.

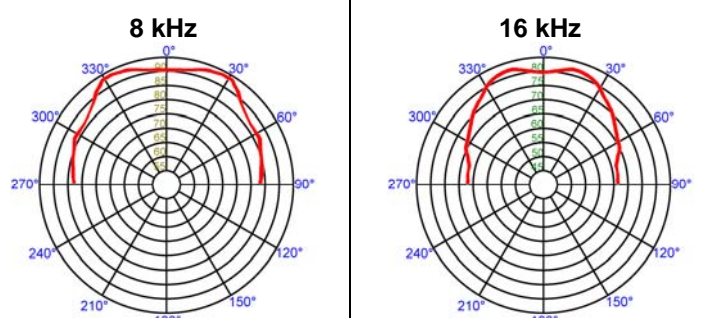
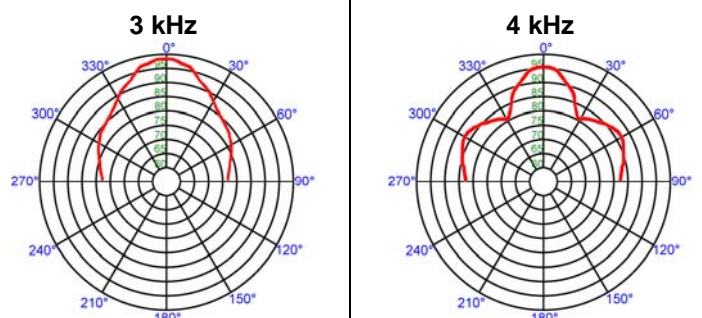
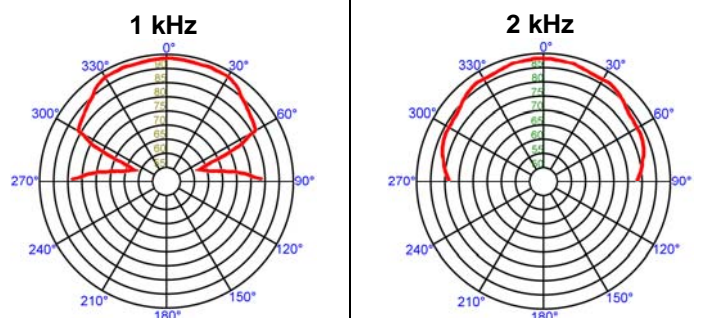
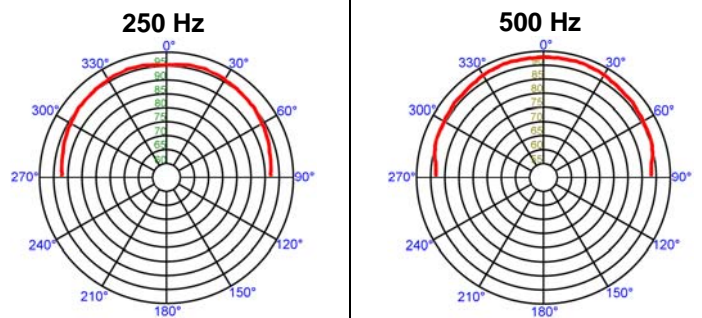
The loudspeaker system shall be on a 2' x 2' lay in system with perforated white grille. The enclosure of the systems shall be on the back of the grille, not extending 7 inches in depth. The diameter of the enclosure shall be 9.25" The system shall have metal strap attachment to the structure for seismic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

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

## Polar Responses



Freq	Deg	Q	DldB
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