

FRAZIER

CAT™ 56/564

Applications

- Arenas
- Stadium Sound Systems
- Houses of Worship
- Performing Arts Theaters
- Music Reinforcement
- Auditoriums

Features

- **Controlled Directivity** (55°x45°)
- **Sensitivity** - 104/105 dB 1W/1M
- **Bandwidth** - 150Hz-15kHz
- **Power Handling** - 250 Watts/500 Watts
- **Production Units 100% TEF tested**
- **Complementary LF System (F2510)**

Factory Options

- **Finishes:** Black, White, Weatherproof
- **Flying Systems:** Internal braced hard points linked by hardened through rods
- **Higher Output Version (CAT 564)**

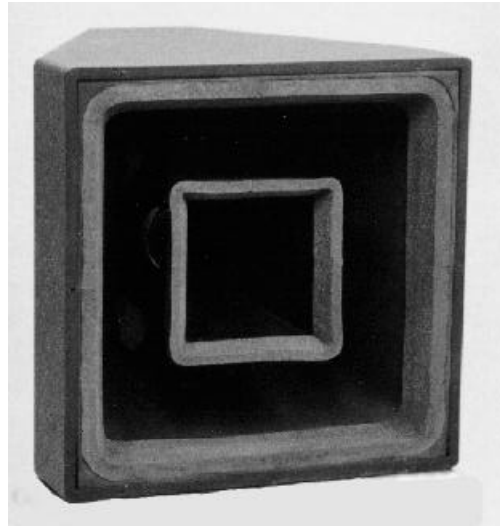
Exceptional Utility

The Frazier CAT 56/564 are extremely compact loudspeakers capable of very high acoustic output with modest amounts of amplifier power. The CAT 56/564 offer compelling performance and packaging benefits, making them extraordinarily versatile sound reinforcement loudspeakers.

CAT Technology, Frazier Quality

The configuration of the CAT 56/564 is the result of extensive interaction between Frazier Engineering and major sound system designers worldwide. Computer-aided modeling, design, and testing were essential to the optimization process.

Low and high frequency sections of the CAT 56/564 combine acoustically to behave as a single device - Coincident Aligned Transducers - resulting in a crossover transition that is inaudible and undetectable at any angle, not just on axis.



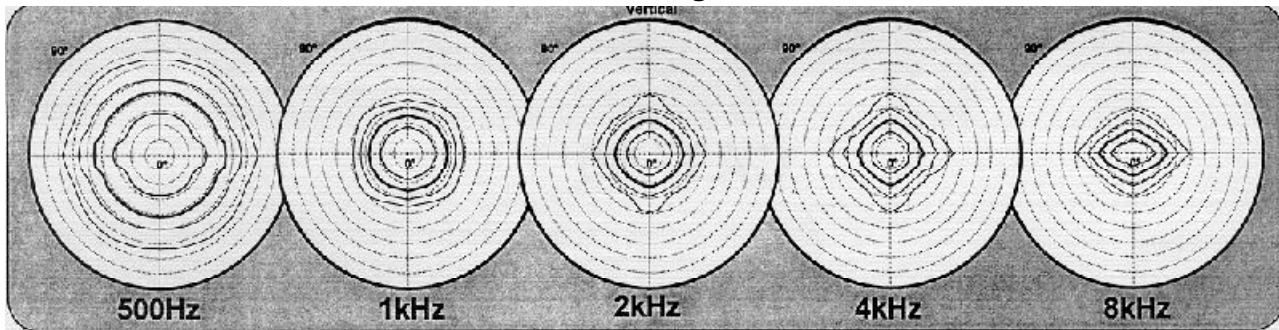
CAT 56 shown with standard cloth grille removed.

Benefits of the acoustic performance of the CAT 56/564 include high quality sound to all seats in the coverage area, minimum excitation of the reverberant field, and maximum gain before feedback. TEF testing of every production unit's response guarantees 100% compliance with published specifications.

Aesthetics

Design criteria for the CAT 56/564 included visual as well as acoustic considerations. Its compact package helps in the design of unobtrusive arrays. In addition, a variety of finishes may be specified. The standard cloth covered grille is available in several colors. In the Frazier CAT 56/564, you will find a powerful, flexible, and cost-effective tool for use in the design of high performance sound systems.

Octave Averaged Isobars



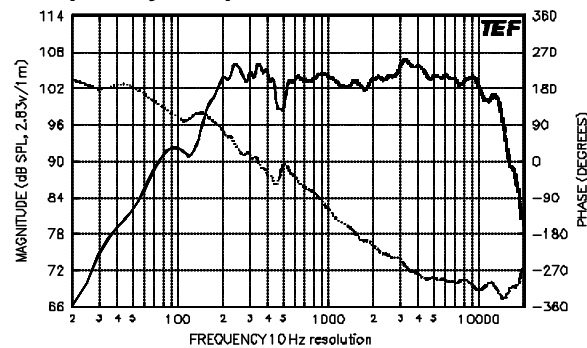
Note: Isobars are in 3dB increments (6dB contours in bold); concentric grid is 10 degrees per division.

ARCHITECTS' and ENGINEERS' SPECIFICATION

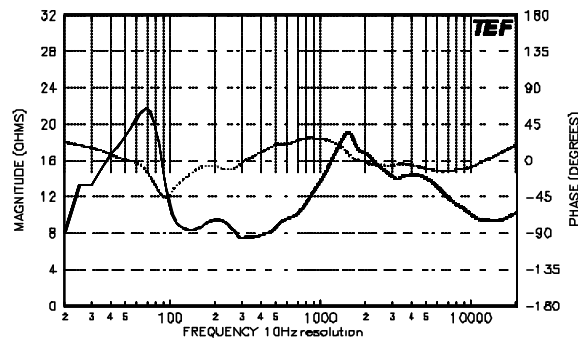
The loudspeaker shall be a two way coaxial system. The low frequency section shall consist of one 10" (254 mm) woofer in an acoustic suspension enclosure driving a constant directivity horn. The high frequency section shall consist of a constant directivity horn driven by a 1" (25mm) [1.4" (36mm)] throat, compression driver. Low and high frequency sections shall be in temporal alignment throughout the coverage pattern without the use of any device external to the loudspeaker. A passive network shall be installed inside the housing and shall provide element-specific signal treatment and crossover filtering. The system amplitude response shall be within plus or minus 3.5 dB of flat from 150 Hz to 15 kHz on axis. Octave averaged coverage angles (-6 dB relative to on axis levels) shall be 60° horizontal (+4°/-3°), 43° vertical (+3°/-3°) from 2kHz-20kHz; and 60 degrees horizontal (+22°/-3°), 43 degrees vertical (+27°/-3°) from 500 Hz-16kHz. The loudspeaker shall be capable of producing 128dB (132 dB) continuous SPL at a distance of 1 meter with no more than 250 (500) watts electrical input power. Maximum weight shall be 80 lbs. (36kg) [85 lbs. (39 kg)]. Maximum dimensions shall be 22" x 22" x 21" (559mm x 559mm x 533mm). The loudspeaker shall be the Frazier CAT 56 (CAT 564).

Power Considerations - The power rating used for the CAT 56/564 is derived as specified by the AES (AES2-1984). A pink noise signal is clipped to a 2:1 (6dB) peak/RMS ratio and filtered with low and high pass filters matched to the device bandwidth. This signal is applied to the loudspeaker for a 2 hour period. All appropriate parameters are checked after this exercise to ensure proper performance. The power rating is set as the upper limit of safe operation and is determined by evaluating the RMS voltage applied during the test and the nominal impedance of the loudspeaker. Thus, the power rating = V^2_{rms}/Z_{nom} . This test is run on several production units as a final validation of the rating.

Frequency Response (1/6 octave smoothing)



Impedance vs Frequency



CAT 56 (CAT 564) Specifications

Bandwidth	150Hz-15kHz +/- 3.5 dB
Power Handling	250/500W (See Above)
Sensitivity (2.83vrms/1m)	104/105 dB SPL
Impedance (Nom./Min.)	8Ω/7.8Ω
Transducers	1 ea. 10"(254mm) LF, 1 ea. 1"(25mm) [1.4" (36mm)] HF driver
Crossover Frequency	1600 Hz
Input Connection	Neutrik Speakon
Weight	80lb (34.1 kg) [85lb (39 kg)]
Dimensions	21-3/4"H x 21-3/4"W x 20-3/8"D (552mm x 552mm x 518mm)
Construction	GRP horn with GRP rear housing (outdoor version) or MDF enclosure
Finishes	Black, White, Outdoor

Directivity (Octave Averaged)

Frequency	Coverage	Q
250Hz	168°x168°	3.4
500Hz	82°x80°	9.8
1kHz	64°x65°	14.8
2kHz	59°x46°	25.1
4kHz	58°x43°	30.9
8kHz	67°x40°	25.1

Model Numbers

Black Textured Finish	F1560 (F15640)
White Textured Finish	F1562 (F15642)
Outdoor Version	F1561 (F15641)

See <http://frazierspeakers.com> for acoustic modeling data and mechanical drawings.

Specifications are subject to change without notice.

CAT56

Form 56R307

FRAZIER

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