

Radian's 508/2B and 512/2BK coaxials are, quite simply, the best ceiling loudspeakers in the world. First of all, they are true coaxial loudspeakers. This means much more than a high frequency unit mounted coaxially with the LF unit. Radian uses one of the best compression drivers ever developed, coupled directly to a LF center pole with a 1" horn machined into the shape of an exponential horn, which loads the compression driver at a taper rate at least two octaves below crossover.

This is a key element in preventing the coloration often associated with compression drivers. In an effort to use the smallest horn possible, most driver system designs use a taper rate which protects the driver from damage, but has the highest cutoff which will accomplish this. Radian's taper rates have much lower cutoff frequencies. This combination presents a coaxial loudspeaker which is not only free from coloration, but is so musical that it goes far beyond the previous bounds of what can be accomplished with distributed speaker designs. The result is remarkably free of spurious resonances, offering greater gain before feedback for voice. Moreover, it has a very linear response, for high resolution of musical subtleties.

Radian coaxials can be afforded in most voice-only designs, but provide foreground installations as an alternative to systems in conventional enclosures which are bulky, unsightly and expensive to fly or hang. Radian ceiling installations permit enormous SPLs confined to specific areas like a dance floor, while bar areas are foreground levels and dining areas are background level, all in the same room.

The Radian 508/2B and 512/2BK coaxials redefine the ceiling installation, and are installed in standard commercial ceiling enclosures.



- ✓ TRUE 1" COMPRESSION DRIVER
- ✓ 90° CONICAL DISPERSION
- ✓ ULTRA RELIABLE
- ✓ HIGH POWER HANDLING CAPACITY
- ✓ 8" AND 12" SIZES
- ✓ HIGH SENSITIVITY



# 508/2B & 512/2BK

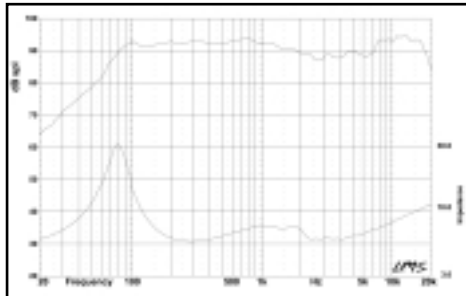


## 8" & 12" COAXIAL CEILING LOUDSPEAKERS

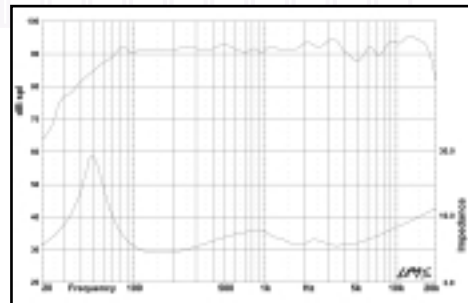
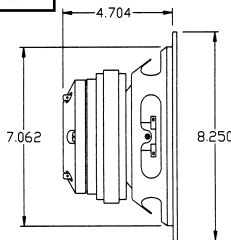
### SPECIFICATIONS

	<u>508/2B</u>	<u>512/2BK</u>
FREQUENCY RESPONSE . . . . .	50 Hz – 20 kHz	40 Hz – 20 kHz
MAXIMUM POWER HANDLING* . . . . .	200 watts Rms	300 watts Rms
SENSITIVITY** . . . . .	95 dB	94 dB
RECOMMENDED CROSSOVER*** . . . . .	1800 Hz	1250 Hz
NOMINAL IMPEDANCE (LF/HF) . . . . .	8 ohms/8 ohms	8 ohms/8 ohms
VOICE COIL DIAMETER (LF/HF) . . . . .	2.0"/1.75" (50.8mm/44.45mm)	3.0"/1.75" (76.2mm/44.45mm)
NOMINAL DISPERSION**** . . . . .	120°	120°
WOOFER CONE MATERIAL . . . . .	Reinforced Paper	Reinforced Paper
DIAPHRAGM MATERIAL . . . . .	0.002" Aluminum	0.002" Aluminum
BASKET MATERIAL . . . . .	Stamped Steel	Stamped Steel
OVERALL DIAMETER . . . . .	8.25" (209.55mm)	12.25" (311.15mm)
MOUNTING BOLT CIRCLE . . . . .	7.75" (196.85mm)	11.75" (298.45mm)
CUT-OUT DIAMETER . . . . .	7.125" (180.975mm)	11.25" (285.75mm)
OVERALL DEPTH . . . . .	5.0" (127mm)	6.5" (165.1mm)
INPUT CONNECTORS:		
HF . . . . .	0.25" terminals (6.35mm)	0.25" terminals (6.35mm)
LF . . . . .	0.205" terminals (4.75mm)	0.205" terminals (4.75mm)
Weight . . . . .	8.02 lbs. (3.64 kg)	14.25 lbs. (6.46 kg)
THIELE/SMALL PARAMETERS:		
QTS . . . . .	0.3961	0.4820
QMS . . . . .	4.97	3.4608
QES . . . . .	0.4304	0.5668
VAS (FT <sup>3</sup> ) . . . . .	0.8 (23.5 liters)	3.69 (108.02 liters)
Fs (Hz) . . . . .	73	45.1
XMAX (IN) . . . . .	0.03	0.035
RE (Ω) . . . . .	6.3	6.1
SD (IN <sup>2</sup> ) . . . . .	34.13	82.08

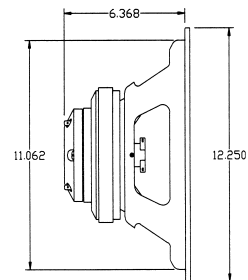
\*EIA Standard RS-426A  
 \*\*One watt at one meter  
 \*\*\*12 dB/octave  
 \*\*\*\*-6 dB



Amplitude vs. Frequency Response of the Radian 508/2B as measured on axis with a one watt (2.83 Vrms), swept sine wave input at 8 ohms, with a 322/08B crossover network in a .9 cabinet. Impedance curve measured in free air.



Amplitude vs. Frequency Response of the Radian 512/2BK as measured on axis with a one watt (2.83 Vrms), swept sine wave input at 8 ohms, with a 322/12 crossover network in a 2.29 cabinet. Impedance curve measured in free air.



Specifications subject to change without notice.

#### LIMITED WARRANTY

Radian Audio Engineering, Inc. products, when sold domestically, are guaranteed for a period of five (5) years from the date of original purchase against malfunctions due to defects in workmanship. If such a malfunction occurs, the product will be repaired or replaced at our option, without charge, if delivered prepaid to the factory. Product will be returned prepaid via ground transport. This warranty does not extend to damage resulting from improper installation, misuse, neglect or abuse. The warranty does not apply to external finish or appearance. The warranty does not apply to burnt voice coils. In no event shall Radian Audio Engineering, Inc. be liable for incidental or consequential damages including, without limitation, injury to persons or property or loss of use.

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