

# COAXIAL CX10G251

Professional Low Frequency Transducer

PART NUMBER **11100097**

## Coax. Features

- 600 Watt continuous program power handling Mid-Bass
- 2.5-inch , fibreglass outside aluminium voice coil
- 98.5 dB Sensitivity
- 65 Hz - 3.5 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- Triple-roll surround and exponential cone geometry
- 100 Watt Continuous program power handling HF
- 1.75-inch Diaphragm, 1.0-inch Exit Throat
- Frequency range: 1200Hz – 20kHz
- 2-slot, optimised geometry phase plug
- Kapton diaphragm
- Aluminum rear cover

The CX10G251 is a lightweight coaxial driver with excellent linearity and high efficiency.

The CX10G251 radiates a coherent single spherical wave front with perfect dispersion control.

The design is powered from a large sized single neodymium ring magnet that provides an extremely high flux density and BL factor.

The new hyper-vented aluminium basket and magnetic assembly design provide an excellent heat dissipation and lower power compression.

Special air-forced ventilations are provided for voice coil, magnet assembly and basket.

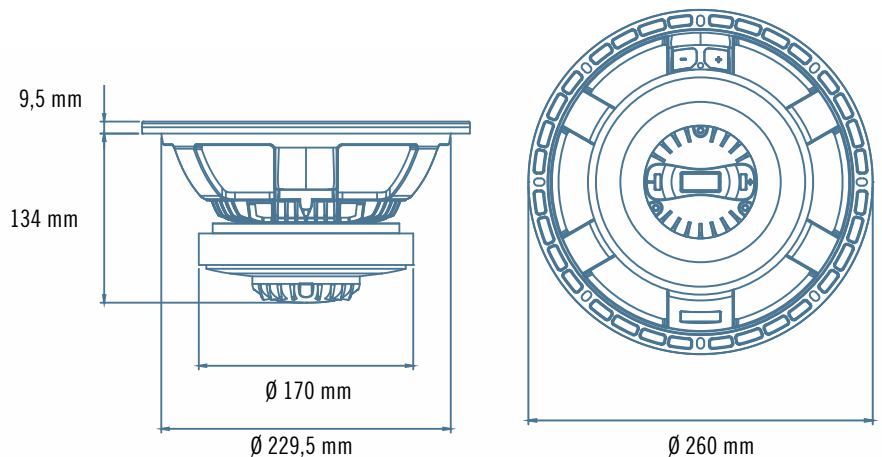
A 2,5" voice coil combined a strength fibreglass former and aluminium wire drives the mid-bass cone with high efficiency and a good extension.

The 1,7" dome compression driver, loaded to a 60° conical waveguide, provides a clear vocal output and a perfect high frequency extension.

## Applications

The CX10G251 is the perfect lightweight solution for vocal applications, stage monitoring and compact 2-way reflex enclosures.

Ideal in designs where a constant radial directivity pattern is a requirement. is designed for use in compact reflex enclosures and stage monitor.



65

3500

20

100

1.000

10.000

20.000

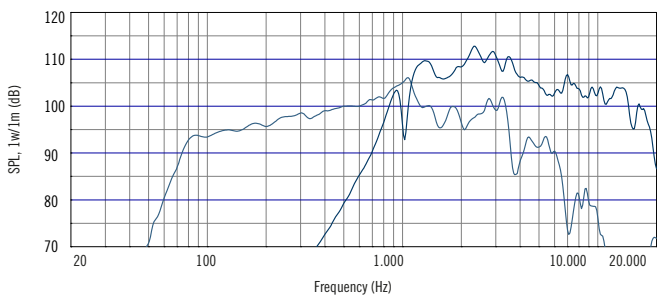


## CX10G251 DRIVER

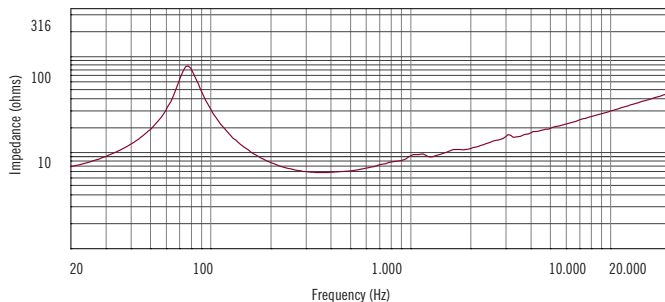
Nominal diameter	25,4/1,00	mm/inch
Rated impedance	8	ohm
Program power	100	Watts
Power handling capacity	50	Watts
Sensitivity 1W, 1m	110	dB
Frequency range	1200 - 20000	Hz
Minimum impedance	6,5	ohm
Voice Coil diameter	44,4/1,75	mm/inch
Voice Coil material	Edgewound Aluminum	
Number of layers		
Diaphragm material	1-Outside	
Diaphragm design	Kapton	
Suspension material	Kapton	
Suspension design	Dome	
BL factor	Flat	T x m
Flux density	7,5	T
Phase plug design	1,6	
Phase plug material	2 slot	
Magnetics	Ferrite	

## CX10G251 HORN

Throat diameter	25,4/1,00
Nominal coverage (-6dB)	60°
Cut-off Frequency	1800
Material	Structural Polyurethane



Frequency response curve of the loudspeaker made in a hemispherical, free field and mounted in a reflex box with an internal volume of 30 litres and tuned at 55Hz, applying a sinusoidal signal of 2.83 V @8 at 1m.



Impedance magnitude curve measured in free air.

## General Specifications

Nominal diameter	250/9,84	mm / inch
Rated impedance	8	ohm
Program power	600	Watts
Power handling capacity	300	Watts
Sensitivity 1W, 1m	98,5	dB
Application range	65 - 3500	Hz
Effective piston diameter	210/8,27	mm / inch
Max exc before damage (peak to peak)	30/1,18	mm / inch
Minimum impedance	6,4	ohm
Voice coil diameter	64/2,52	mm / inch
Voice coil material	Aluminum	
Voice coil winding depth	14/0,55	mm / inch
Number of layers	1	
Top plate thickness	8/0,31	mm / inch
Cone material	No pressed pulp	
Cone design	Curved	
Surround material	Polycotton	
Surround design	M - roll	
Demodulation ring	Aluminum	

## Thiele - Small Parameters<sup>4</sup>

Resonance frequency	Fs	72	Hz
DC resistance	Re	5,2	ohm
Mechanical factor	Qms	5,0	
Electrical factor	Qes	0,30	
Total factor	Qts	0,28	
BL Factor	BL	14,2	T · m
Effective Moving Mass	Mms	25	gr
Equivalent Cas air load	Vas	33	liters
Effective piston area	Sd	0,035	m <sup>2</sup>
Max. linear excursion (mathematical) <sup>5</sup>	Xmax	4,8	mm
Voice - coil inductance @ 1KHz	Le1K	0,5	mH
Half-space efficiency	Eff	3,90	%

## Mounting Information

Overall Diameter	260/10,24	mm/inch
Bolt Circle Diameter	241 - 246/9,50 - 9,60	mm/inch
Bolt Hole Diameter	5,5/0,22	mm/inch
Front Mount Baffle Cut-out	232/9,13	mm/inch
Rear Mount Baffle Cut-out	232/9,13	mm/inch
Depth	134/5,28	mm/inch
Volume occupied by the driver <sup>6</sup>	2,5/0,09	liters/ft3

## Shipping Information

Net Weight	6,1/13,45	Kg/Lbs
Shipping Weight	6,3/13,89	Kg/Lbs

## Notes to Specifications

1 Program Power is defined as 3 dB greater than AES power. - 2 AES standard. - 3 Sensitivity measurement is based on a 500-2,5 kHz pink noise signal with input power of 2.83V @ 8 Ohms. - 4 Thiele-Small parameters are measured after a 2 hour warm up period running the loudspeaker at full power handling capacity. - 5 The maximum linear excursion is calculated as:  $(Hvc - Hg)/2 + Hg/4$  where Hvc is the voice coil depth and Hg the gap depth. - 6 Calculated for front mounting on 18 mm thick board.