zenitel

DATASHEET

100V PAVA Loudspeaker

- Ceiling Loudspeaker
- 20W 100V
- Size 8” (200mm)
- Quick mount frameless design
- Quick connection with Wago 221 connectors
- Full range sound quality
- Firedome
- Weatherproof to IP21C
- Fitted with 4.7 µF DC Blocking Capacitor
- Certified to EN 54-24



SPCR-20W-80-EN54

OVERVIEW

The SPCR-20W-80-EN54 is a 20W 100V round frameless ceiling mount loudspeaker, which has an 8” (200mm) full-range chassis providing excellent sound quality with speech and background music, and which is certified to EN 54-24.

The speaker is fitted with a 100V transformer which has three power adjustment tappings of 20W, 10W, and 5W.

The SPCR-20W-80-EN54 has a powder coated metal chassis and grille, with the high quality finish giving good long-term protection and resistance to corrosion. The speaker is supplied with a rear fire dome, and its enclosure is ingress protection rated to IP21C.

The SPCR-20W-80-EN54 provides easy ceiling mounting through the use of spring clamps, for use with a possible ceiling thickness of between 1mm and 45mm.

Please note that although very thin ceilings can be used as a mounting surface, it should be ensured that the ceiling thickness and strength are appropriate to the weight of the speaker, and to the thickness and weight of the 100V loudspeaker line cables.

The 100V loudspeaker line cabling is fed through rubber grommets in the fire dome and is quickly connected to the speaker by means of the WAGO 221 connectors.

For additional reliability, the speaker chassis is impregnated against wetness and the strong spring clamps with protective caps provide vibration-damping.

A 2.2 µF DC blocking capacitor is supplied pre-fitted to the speaker, for ease of installation.

As standard the speaker is coloured to match RAL9016 ‘Traffic White’, however the speakers can be supplied in any four-digit RAL or NCS colour, as a special order.

Enhanced Acoustic Simulator for Engineers (EASE) data for this loudspeaker is available on request.

TECHNICAL DATA

Power Tappings	20W / 10W / 5W
Impedance (100V)	500 / 1000 / 2000 Ohms
Loudspeaker Impedance	8 Ohms
DC Capacitor	4.7 µF 250 VDC
Frequency Range	60 - 17,500 Hz
Frequency Response	100 - 20,000 Hz
SPL 1W / 1m, peak	105.6 dB
SPL 1W / 4m, peak	93.6 dB
SPL Pmax / 4m, peak	106.6 dB
SPL IEC 60268-5 1W / 1m	94.8 dB
SPL IEC 60268-5 Pmax/1m	107.8 dB
SPL EN 54-24, Pmax/4m	97.8 dB
Sensitivity EN 54-24, 1W / 4m	85.2 dB
Dispersion (-6dB, 500Hz) Horizontal / Vertical Plane*	180° (horizontal) / 180° (vertical)
Dispersion (-6dB, 1KHz) Horizontal / Vertical Plane*	155° (horizontal) / 155° (vertical)
Dispersion (-6dB, 2KHz) Horizontal / Vertical Plane*	100° (horizontal) / 150° (vertical)
Dispersion (-6dB, 4KHz) Horizontal / Vertical Plane*	60° (horizontal) / 60° (vertical)
Temperature Range	-10 / +55 °C
Dimensions	265 x 115 mm
IP Rating	IP21
Weight (net)	1.6 kg
Colour	RAL9016
Connector	WAGO 221 connector
Mounting	Spring Clamp
Ceiling Cut-out	240 mm
Maximum Cable Passage	4 mm²
Compliance	EN 54-24

*** EN 54-24 Definitions for Speaker Reference Axis, Point, Plane + Horizontal & Vertical Planes:**

- Reference Axis: Axis is through the centre of the speaker grille surface and is perpendicular to the grille surface.
- Reference Plane: Plane is across the front of the speaker grille surface and is perpendicular to the reference axis.
- Horizontal Plane: Plane contains the reference axis and is perpendicular to the reference plane.
- Vertical Plane: Plane contains the reference axis and is perpendicular to the reference plane.
- Reference Point: Point is at the centre of the front of the speaker grille surface where all the above intersect.

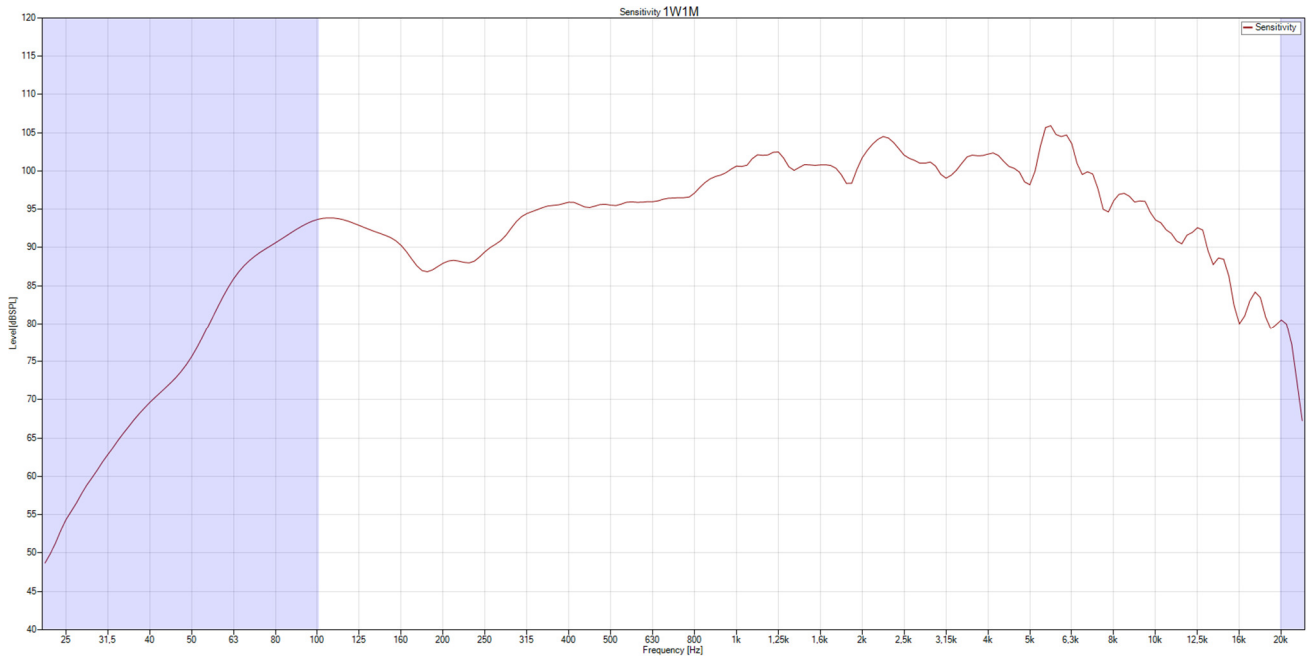
All measurements in the table above relate to the Reference Axis unless otherwise stated

EN 54-24 Annex A, Measurement Environments:

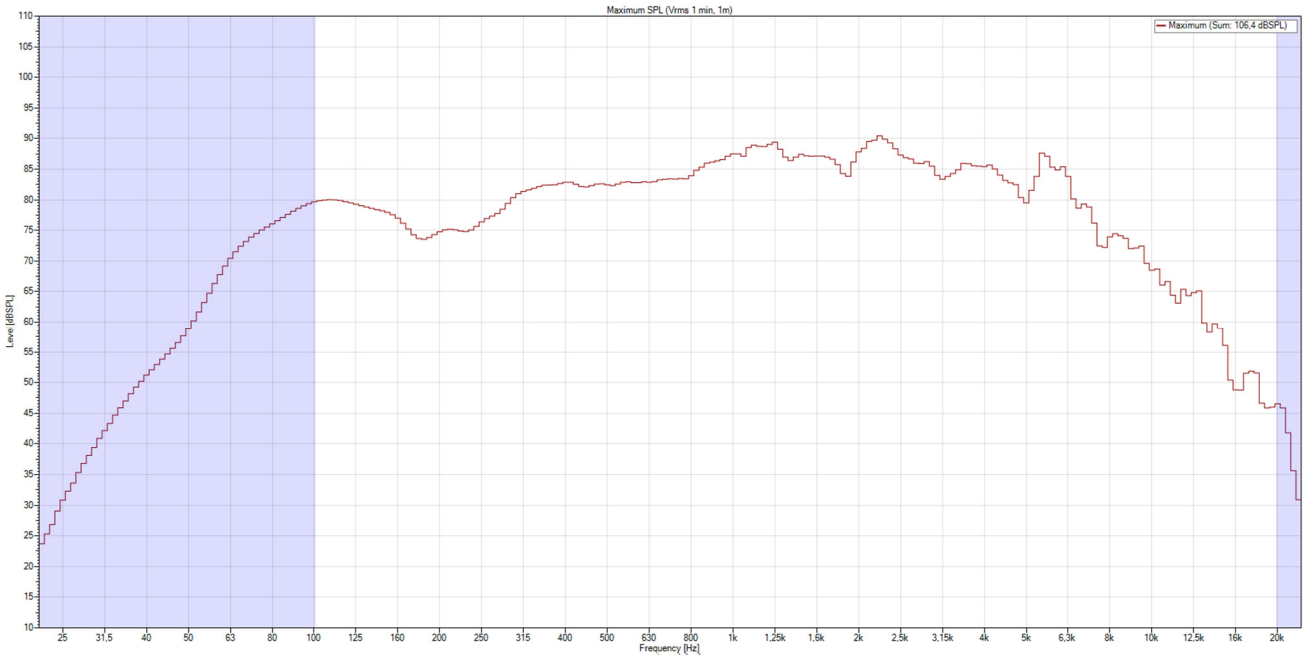
Flush-mounted loudspeakers e.g. ceiling loudspeakers, shall be measured under half-space free field conditions.

All other speakers shall be measured under free-field conditions or in a ground plane arrangement that simulates a free-field condition.

FREQUENCY RESPONSE DIAGRAM – SENSITIVITY 1W / 1m

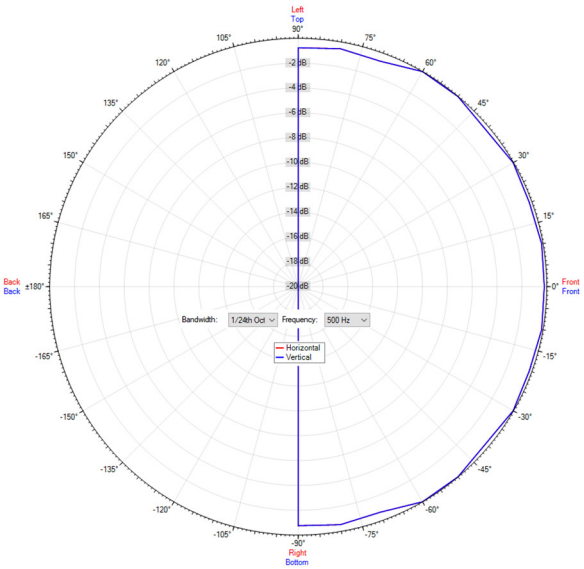


FREQUENCY RESPONSE DIAGRAM – MAXIMUM SPL (Vrms 1 min, 1m)

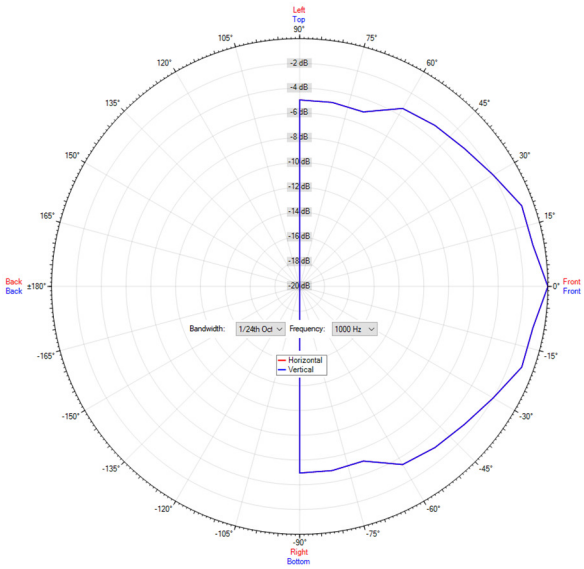


POLAR DIAGRAMS

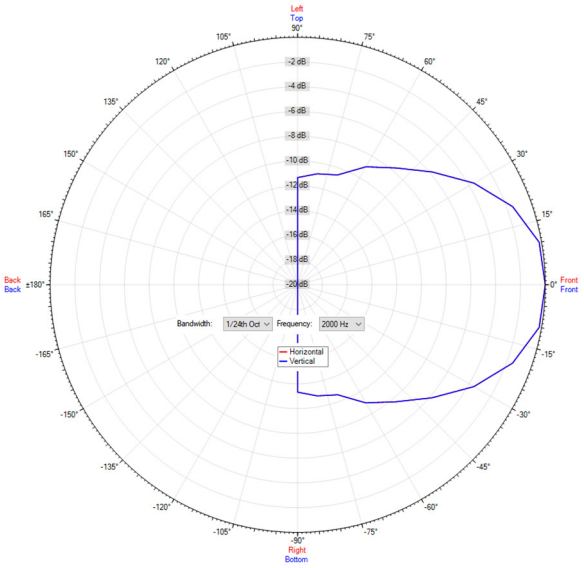
500 Hz



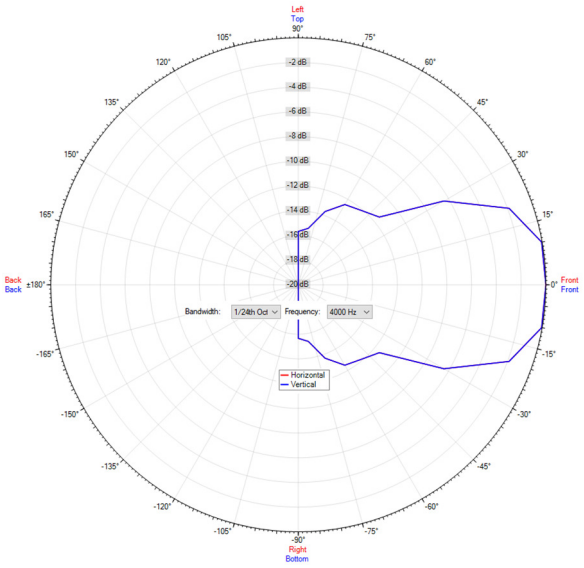
1,000 Hz



2,000 Hz

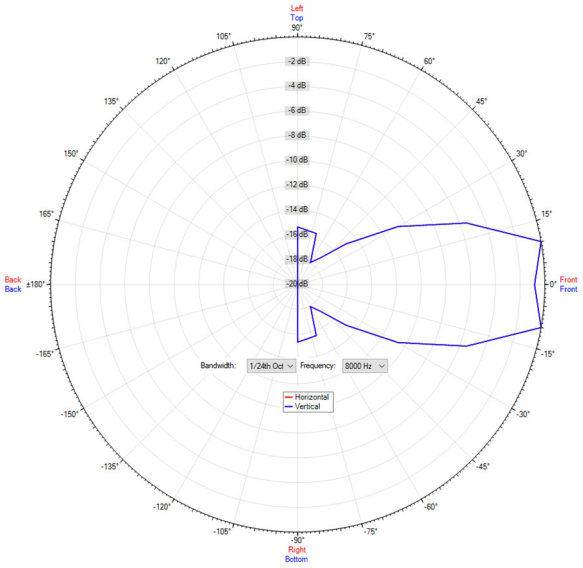


4,000 Hz

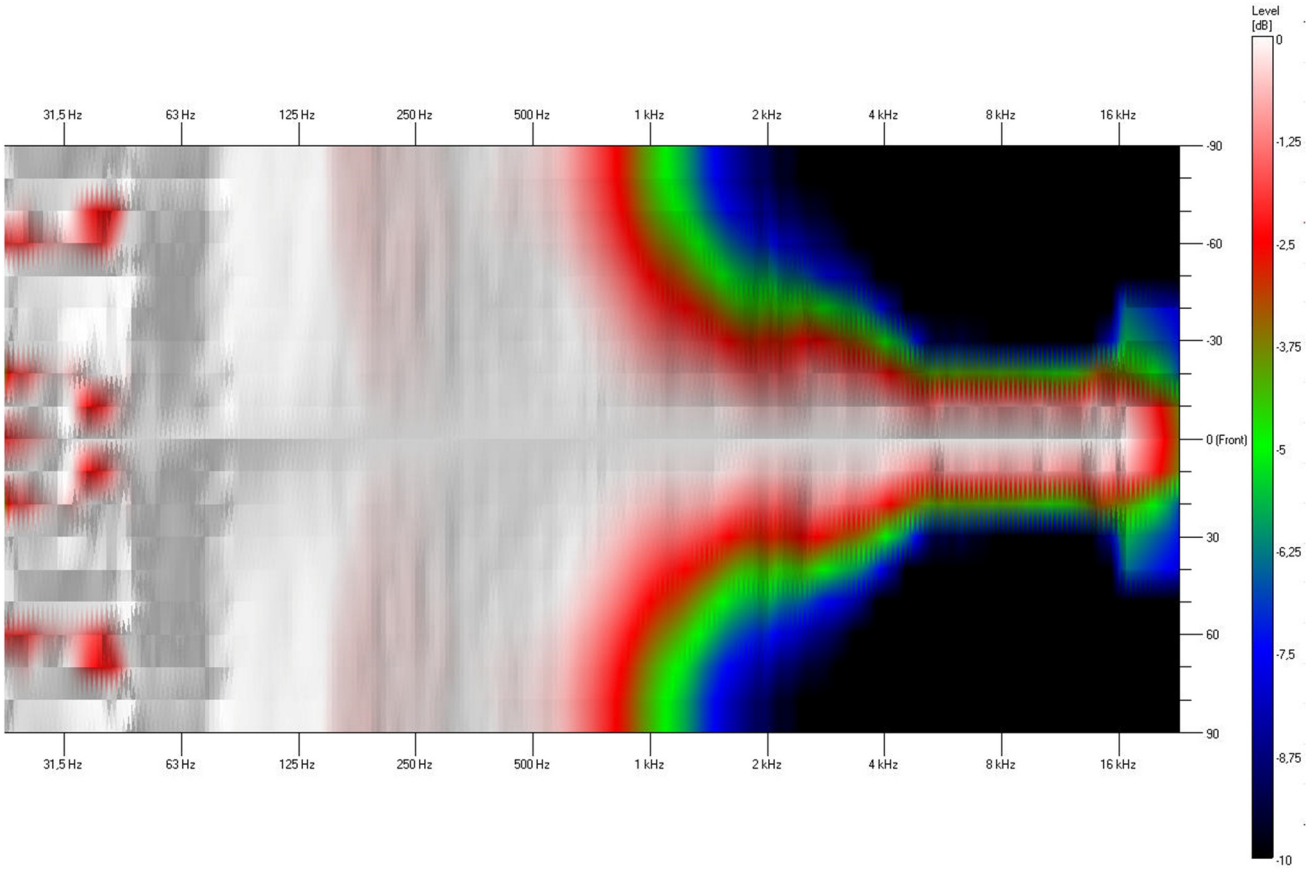


POLAR DIAGRAM

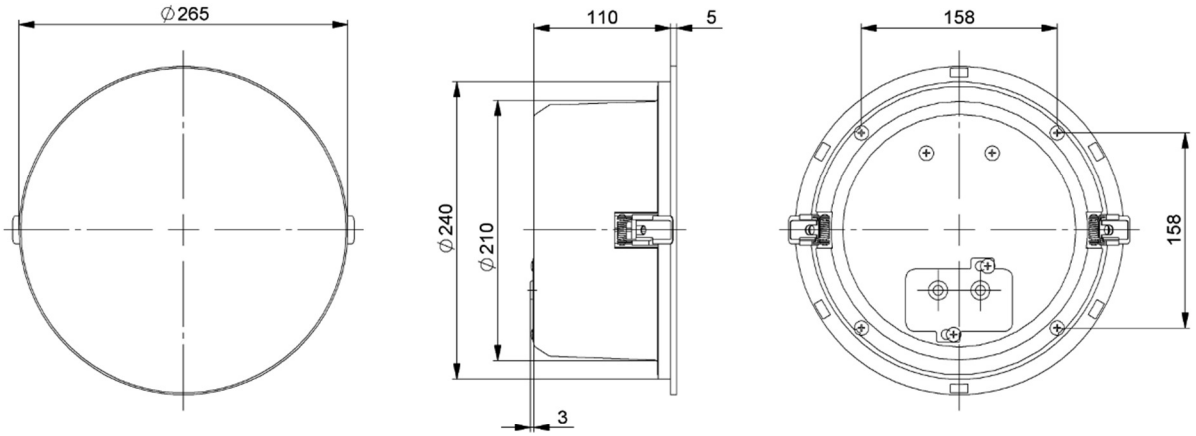
8,000 Hz



ISOBAR



DIMENSIONAL DIAGRAM



all dimensions are in mm

This equipment is designed and manufactured to conform to the following EU Directives:

CE

Low Voltage: 2014/35/EU
Restriction of Hazardous Substances (RoHS): 2011/65/EU & 2015/863/EU

Made for:

Zenitel GB Limited

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www.zenitel.com

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