

- Sound Projector Loudspeaker
- 20W 100V
- Size 5.0" (130mm)
- U-bracket mounting
- Robust ABS plastic housing
- Weatherproof to IP66
- Full range sound quality
- Option with DC capacitor fitted
- Certified to EN 54-24



## OVERVIEW

The SPPR-P-20W-50-EN54 is a 20W 100V sound projector loudspeaker which has a 5" (130mm) full-range chassis providing excellent sound quality with speech and background music, and which is certified to EN 54-24. The speaker is supplied with a 100V transformer which has four power adjustment tappings of 20W, 10W, 5W and 2.5W.

The SPPR-P-20W-50-EN54 has a robust impact resistant white ABS housing, and speaker chassis is damp-resistant. The speaker is rated to the IP66 environmental standard which means it is protected against the ingress of dust and it is also sealed against high pressure water jets.

Mounting of the speaker is provided using a steel 'U' bracket, which provides a number of flexible mounting options. The 100V loudspeaker line connection is provided via a 900mm two core LSZH cable, which is terminated with an IP65 ingress protection rated connection box.

In order to provide increased fire protection, the speaker is also fitted with a 2-pin ceramic block and a thermal fuse. This speaker is compliant with the British Standard BS 5839, Part 8.

There is also a strap-on mast bracket available as an accessory, part number SPAC-MB-80. This mast bracket is suitable for use with masts of up to 200mm diameter.

The loudspeaker is optionally available with a DC blocking capacitor fitted, in order to provide compatibility with DC loudspeaker line monitoring systems. The part number for this DC monitoring compatible version is SPPR-P-20W-50-EN54-DC.

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

## TECHNICAL DATA

Power Tappings	20W / 10W / 5W / 2.5W
Impedance (100 V)	500 / 1000 / 2000 / 4000 Ohms
DC Capacitor (SPPR-P-20W-50-EN54-DC Version only )	4.7 $\mu$ F, 250V
Frequency Range	150 – 20,000 Hz
Frequency Response	120 – 21,000 Hz
SPL 1W / 1m, peak	99,5 dB
SPL 1W / 4, peak	87,5 dB
SPL Pmax / 4m, peak	100,5 dB
SPL IEC 60268-5, 1W / 1m	87,0 dB
SPL IEC 60268-5, Pmax/1m	100,0 dB
SPL EN 54-24, Pmax / 4m	89,0 dB
Sensitivity EN 54-24, 1W / 4m	75,0 dB
Dispersion (-6dB, 500Hz) Horizontal / Vertical Plane*	360° (horizontal) / 360° (vertical)
Dispersion (-6dB, 1KHz) Horizontal / Vertical Plane*	230° (horizontal) / 230° (vertical)
Dispersion (-6dB, 2KHz) Horizontal / Vertical Plane*	110° (horizontal) / 110° (vertical)
Dispersion (-6dB, 4KHz) Horizontal / Vertical Plane*	58° (horizontal) / 58° (vertical)
Temperature range	-25 / +70 °C
Dimensions	137 x 200 mm
IP Rating	IP66
Weight (net)	1.44 kg
Colour	White
Mounting	'U' Mounting bracket
Connector	2-pin ceramic block
Maximum Cable Passage	8mm <sup>2</sup>
Compliance	EN 54-24 / BS 5839, Part 8

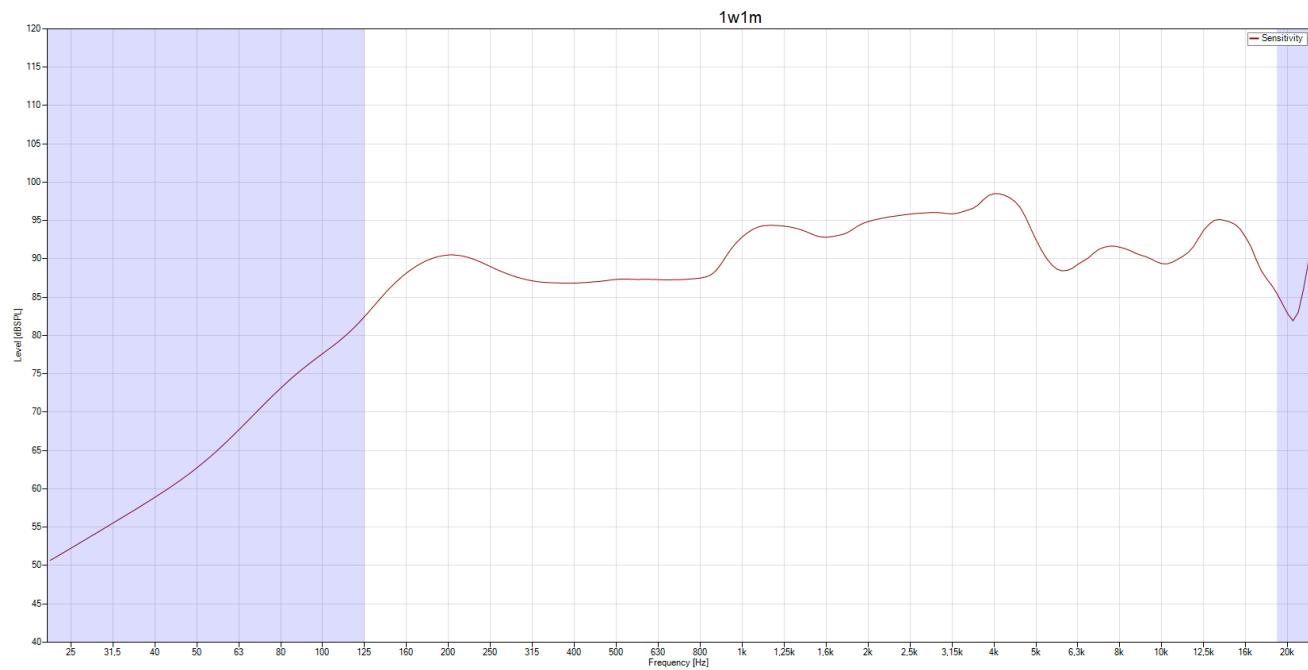
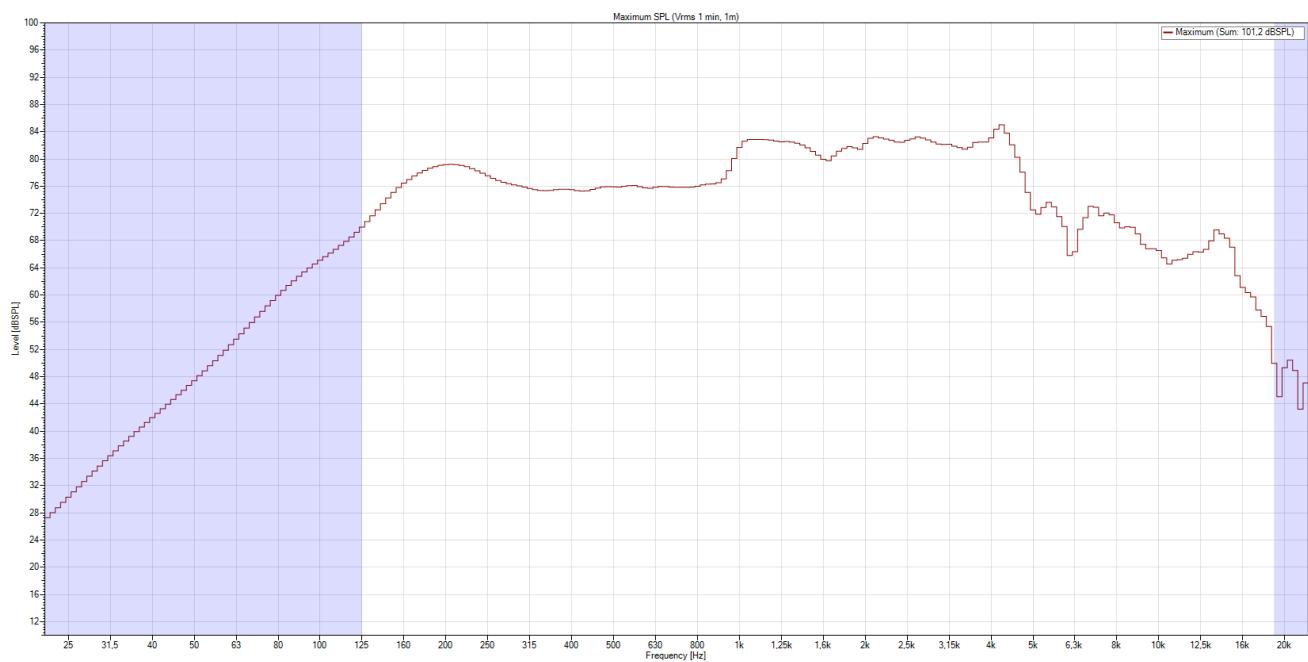
### \* EN 54-24 Definitions for Speaker Reference Axis, Point, Plane + Horizontal & Vertical Planes:

- 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

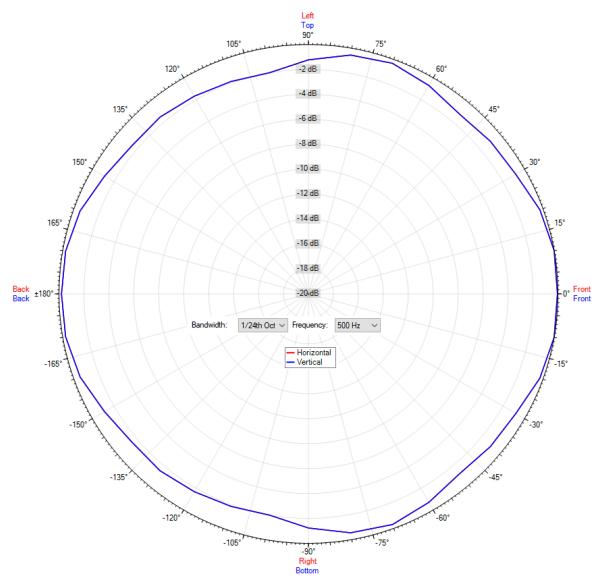
### EN 54-24 Annex A, Measurement Environments:

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.

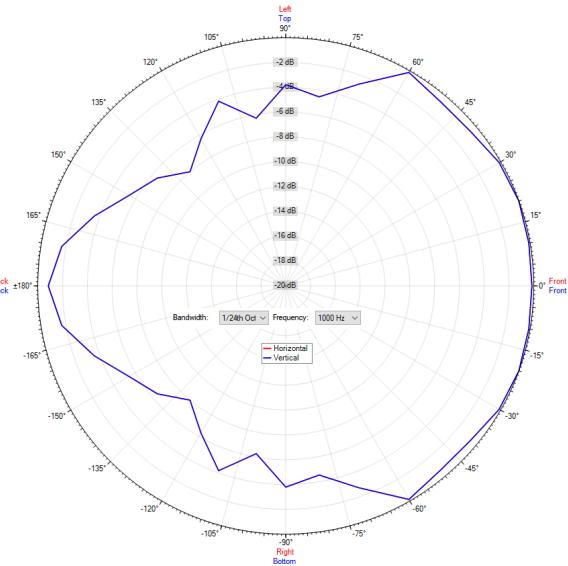
**FREQUENCY RESPONSE DIAGRAM—SENSITIVITY 1W / 1m**

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


## POLAR DIAGRAMS

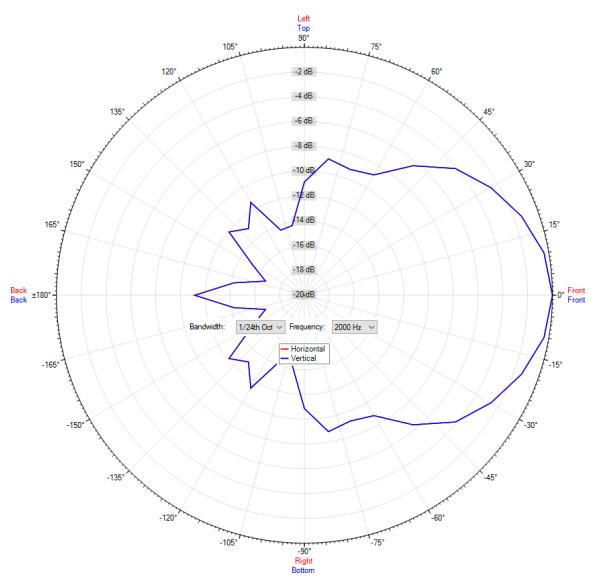
**500 Hz**



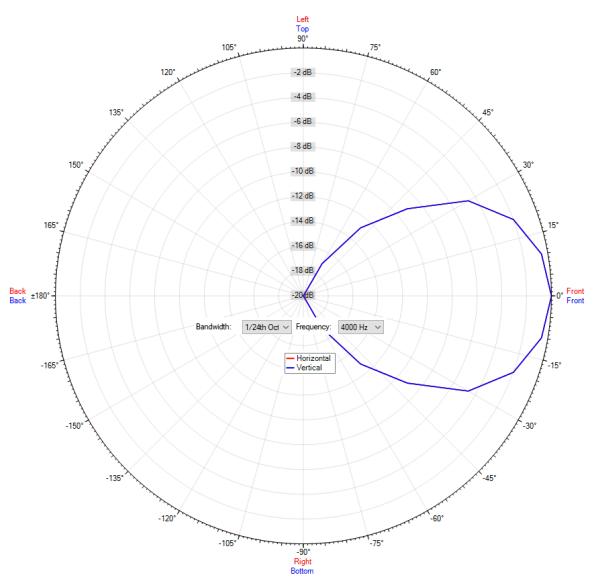
**1,000 Hz**

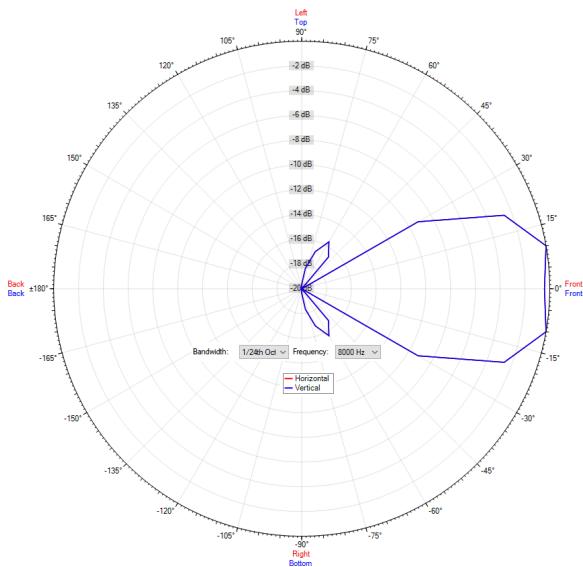
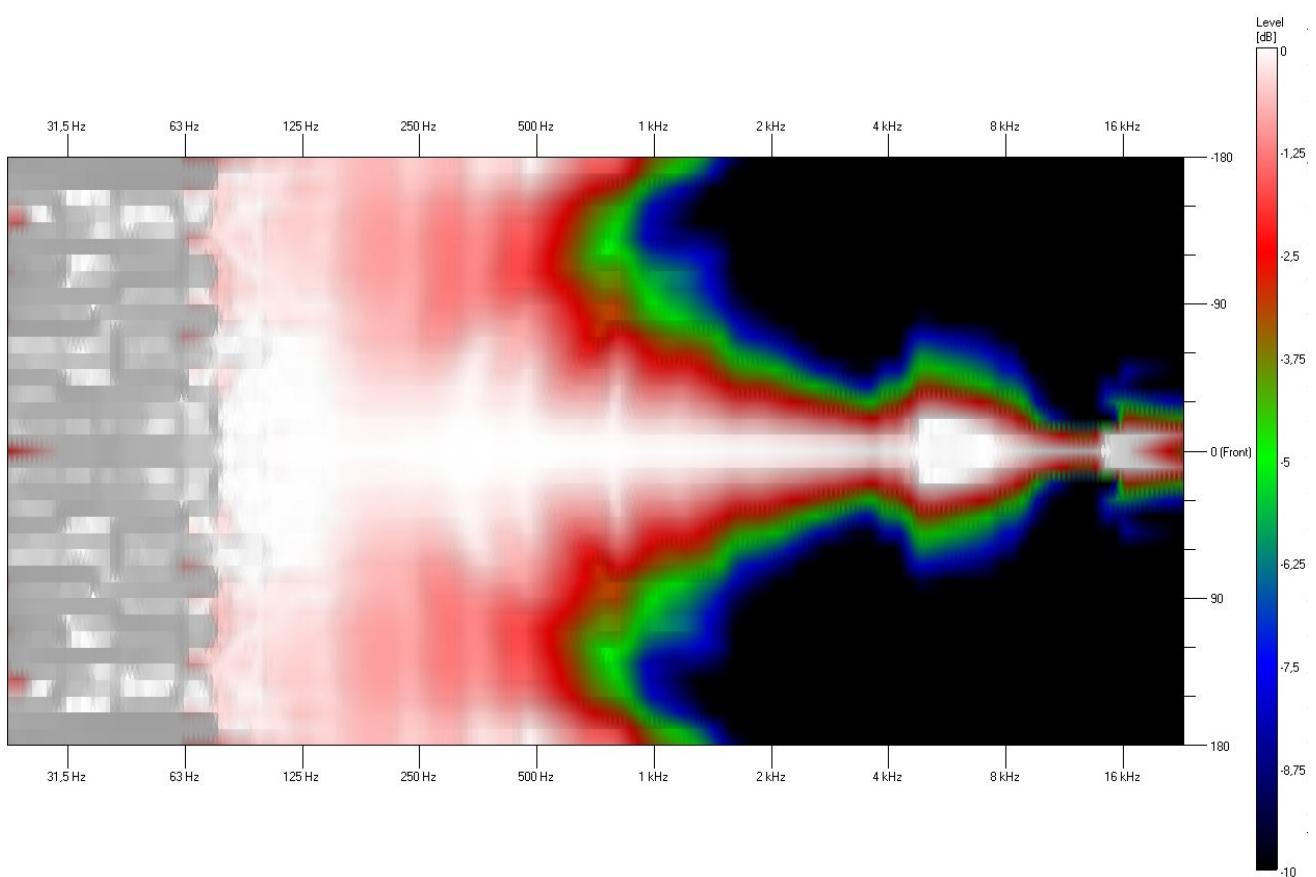


**2,000 Hz**

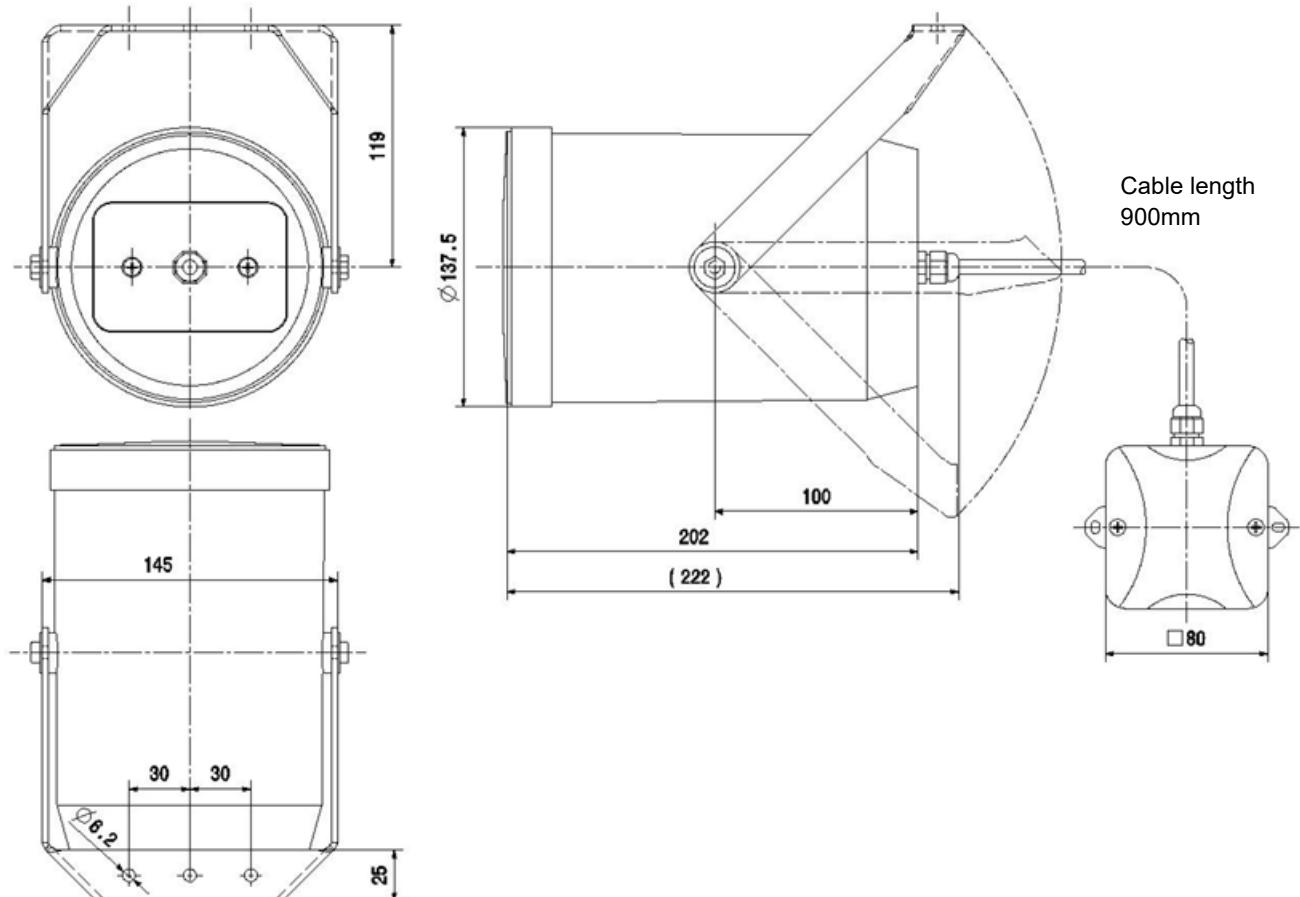


**4,000 Hz**



**POLAR DIAGRAM**
**8,000 Hz**

**ISOBAR**


DIMENSIONAL DIAGRAM



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

Unit 17 - Cliffe Industrial Estate - Lewes - East Sussex - BN8 6JL - U.K.

[www.zenitel.com](http://www.zenitel.com)

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