

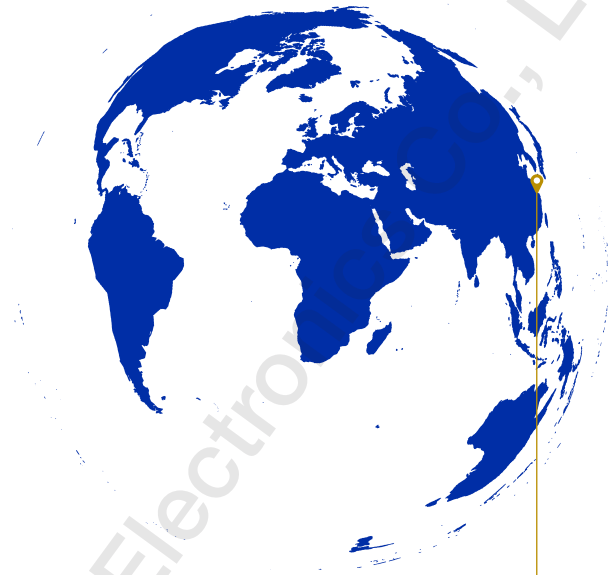


Waveguide Probe Antenna

14.5 - 22.0 GHz



QR code



Hangzhou Multipath Electronics Co., Ltd., Zhejiang, China

⚙️ Product specifications

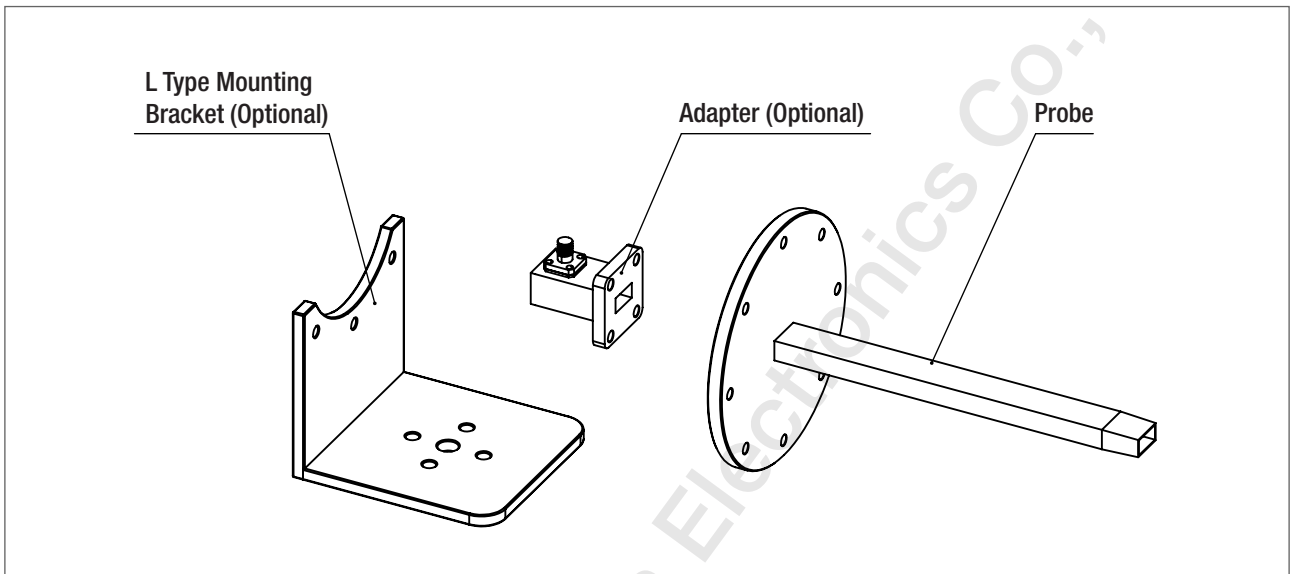
Part number	WP-WR51	Polarization	Single linear
Antenna type	Waveguide Probe Antenna	Gain [dBi]	6 Typ.
Frequency range [GHz]	14.5 – 22.0	3dB beamwidth [deg]	E-plane: 104 Typ. H-plane: 56 Typ.
Waveguide band	WR51	Cross-polarization isolation [dB]	30 Typ.
Dimensions (H x W x L) [mm; inch]	100 x 100 x 160.5; 3.94 x 3.94 x 6.32	VSWR	1.8 Typ.
Weight (approx.) [kg; lb]	0.19; 0.419	Impedance [Ohms]	50
Material	Aluminum	RF connector	SMA-Female

Outline dimensions

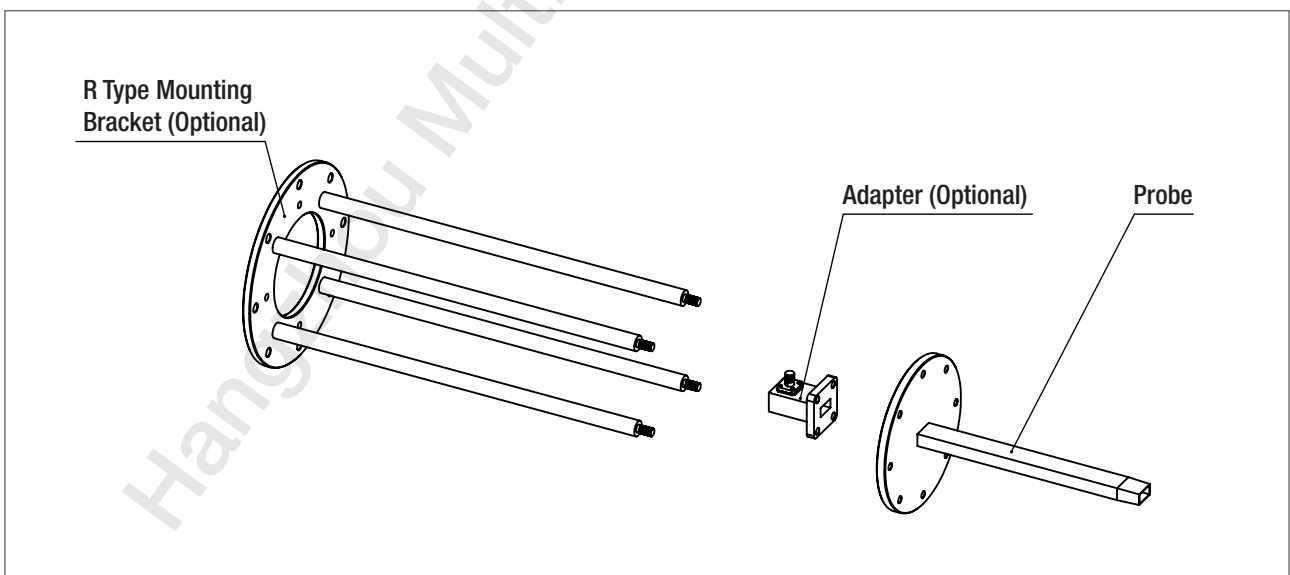
• Assembly dimensional drawing

Multipath Electronics provides complete Waveguide Probe Antennas, forming mounting systems, integrated with (optional) waveguide to coaxial adapters, L type and round mounting brackets. The following figure shows the disassembly diagram of such a system.

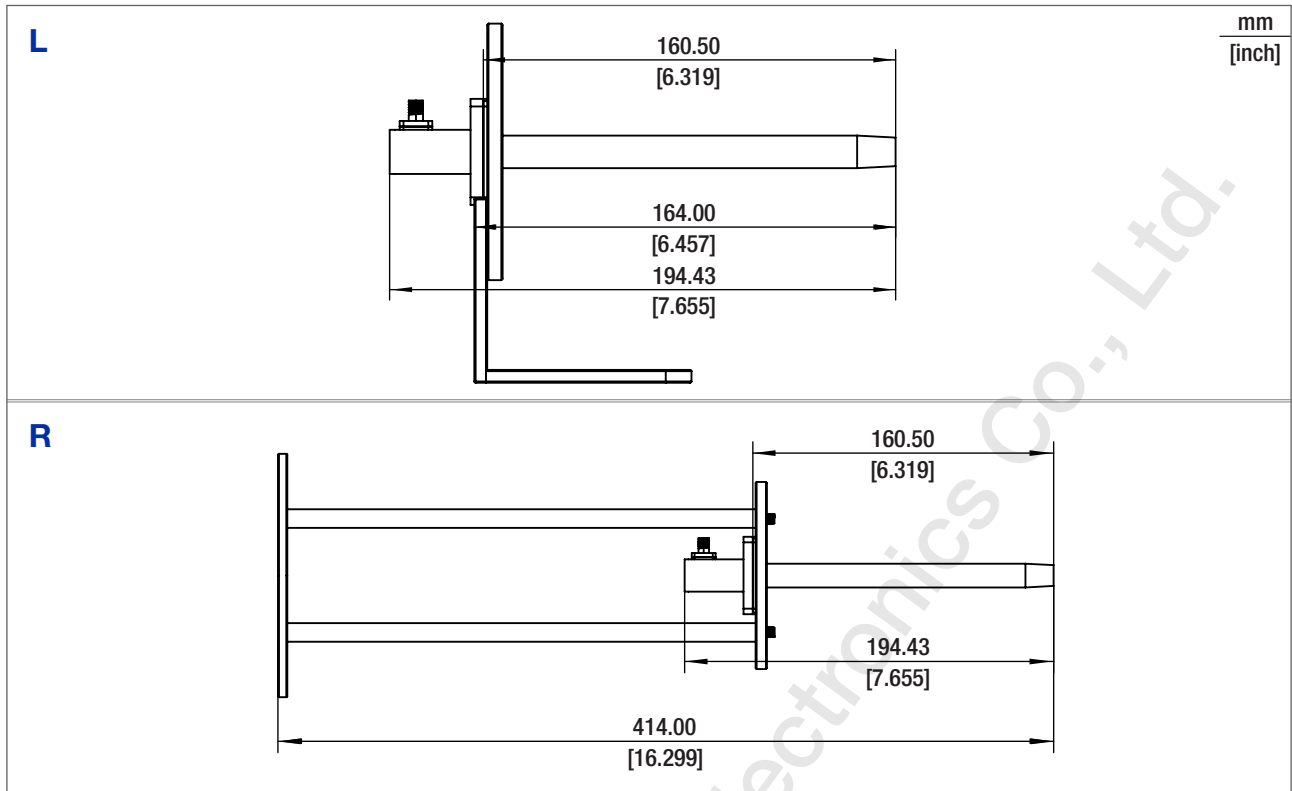
L_detector explosive body



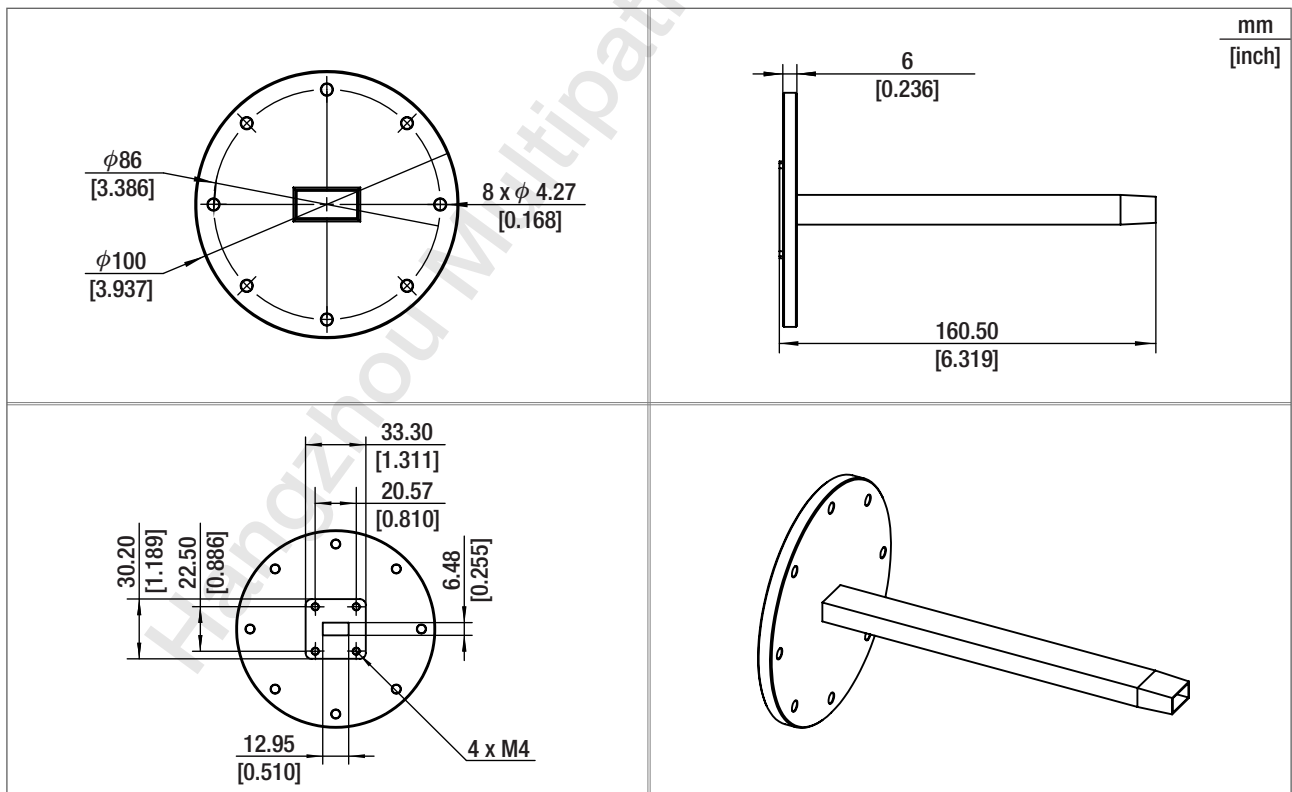
R_detector explosive body



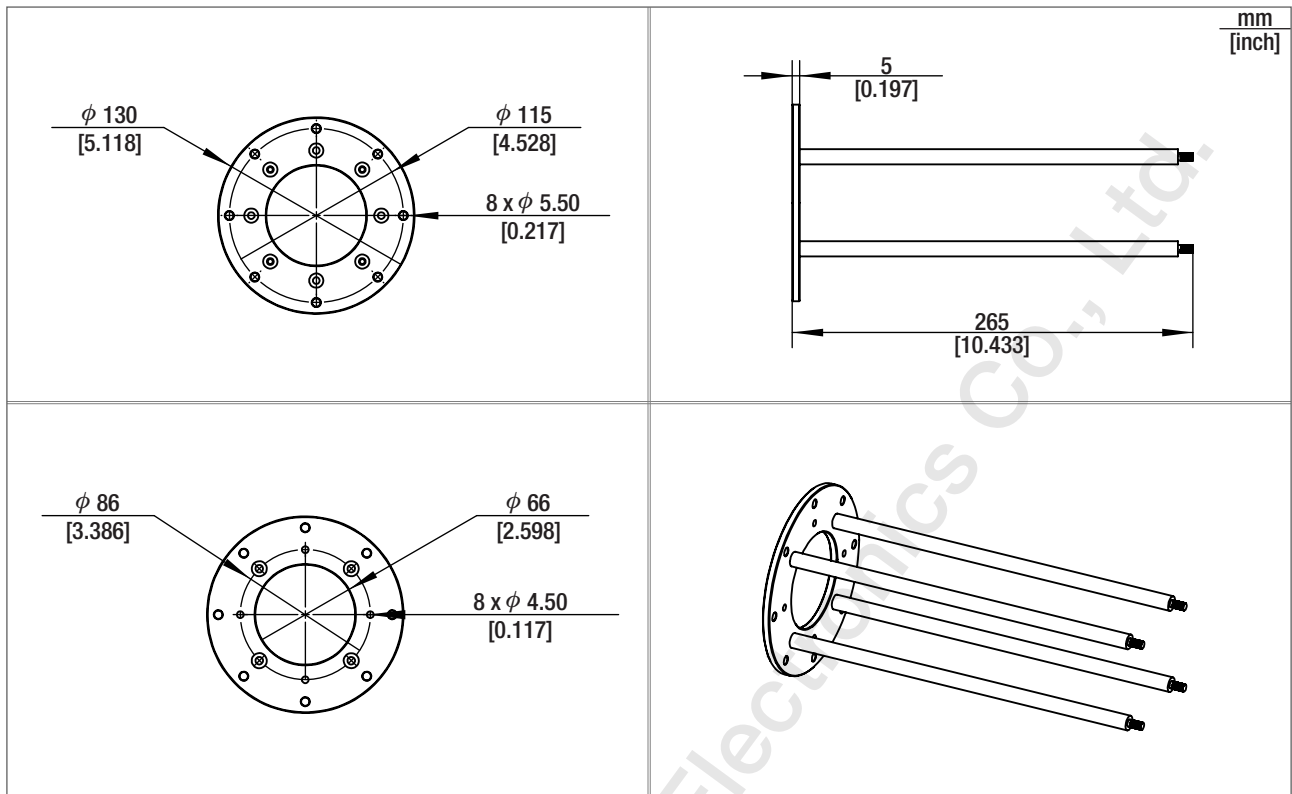
• Side view of the mounting system



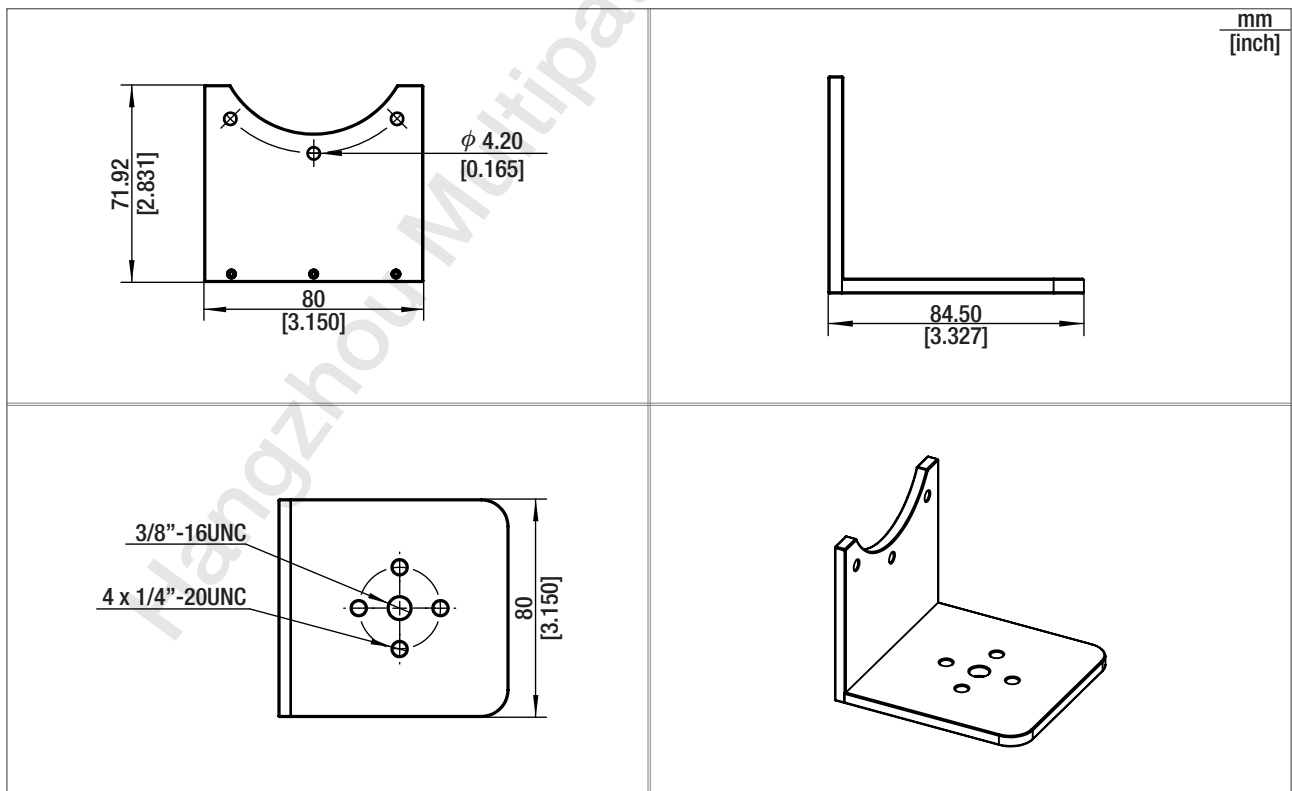
• Dimensional drawing: detectors, WP-WR51



• Dimensional drawing: round mounting bracket (Optional)

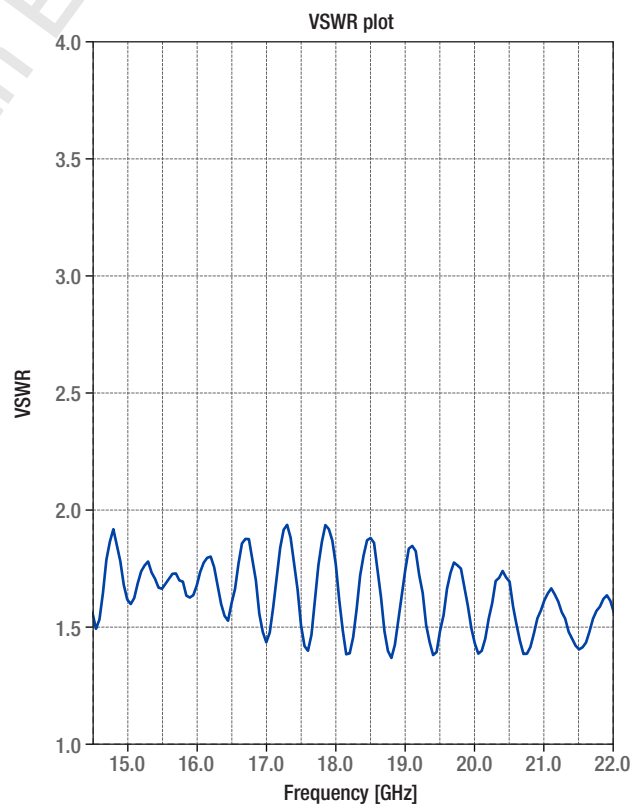
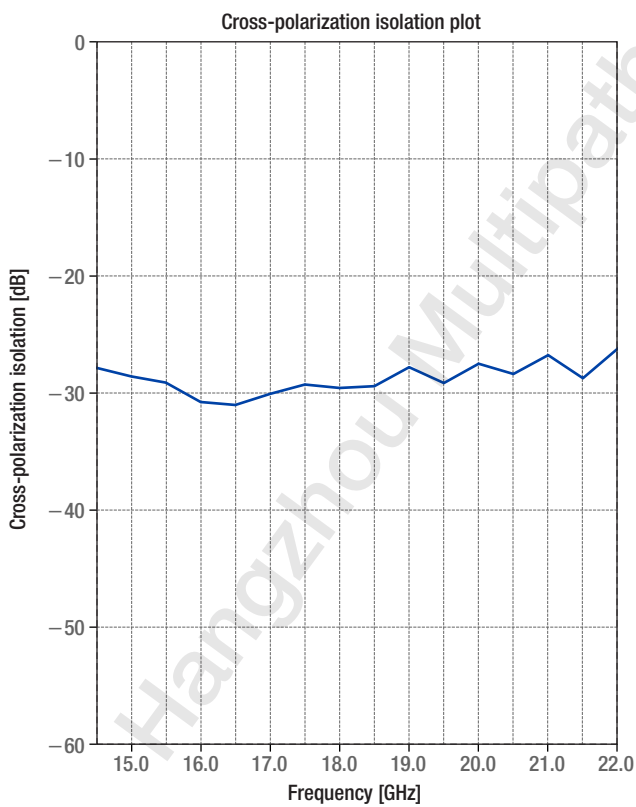
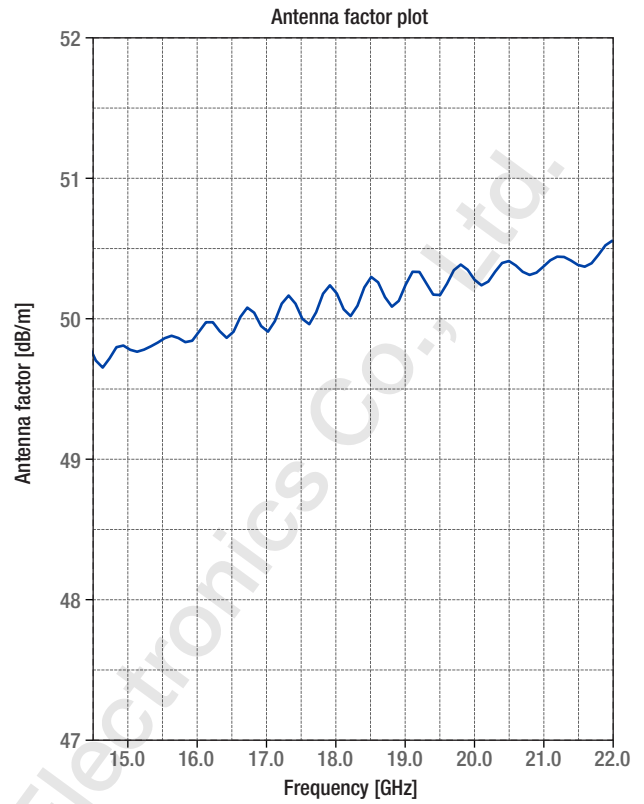
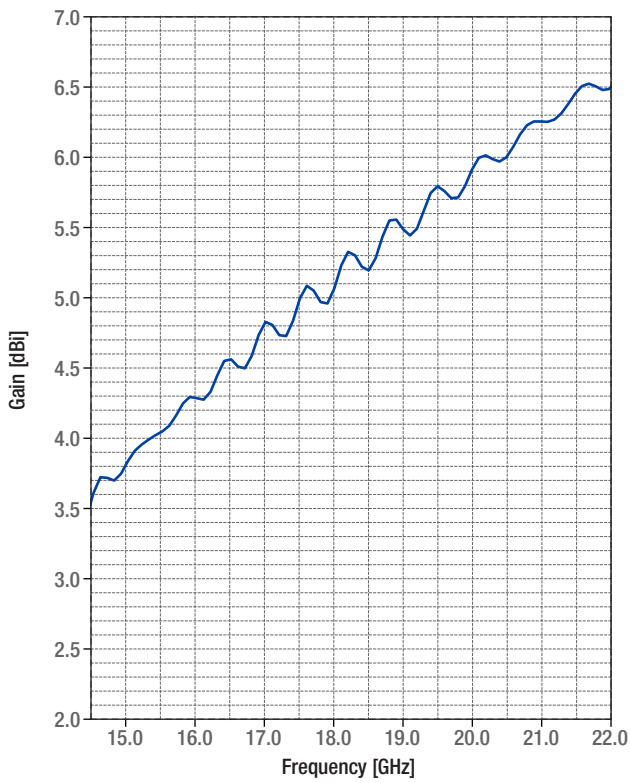


• Dimensional drawing: L type mounting bracket (Optional)



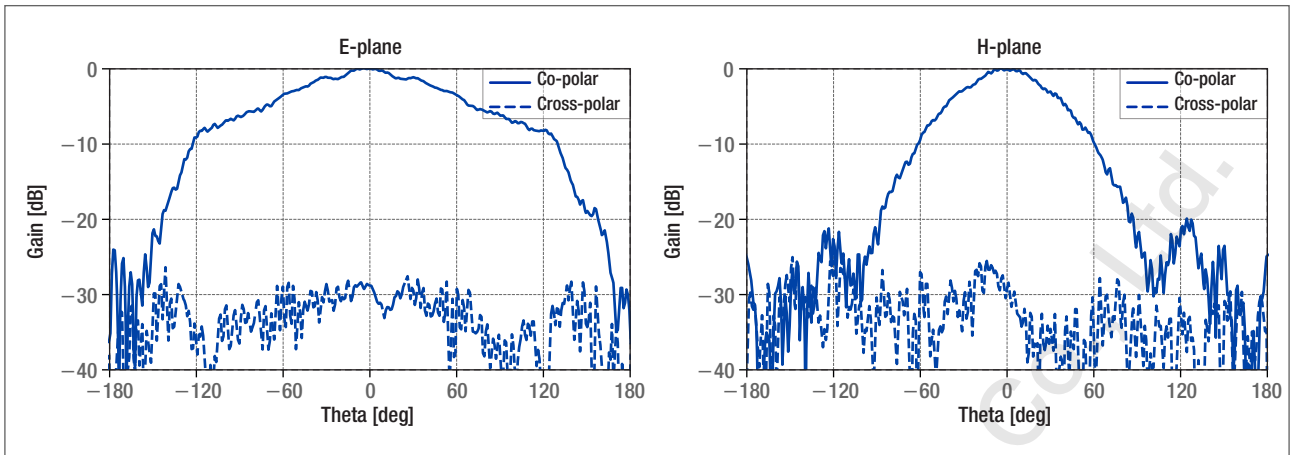
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

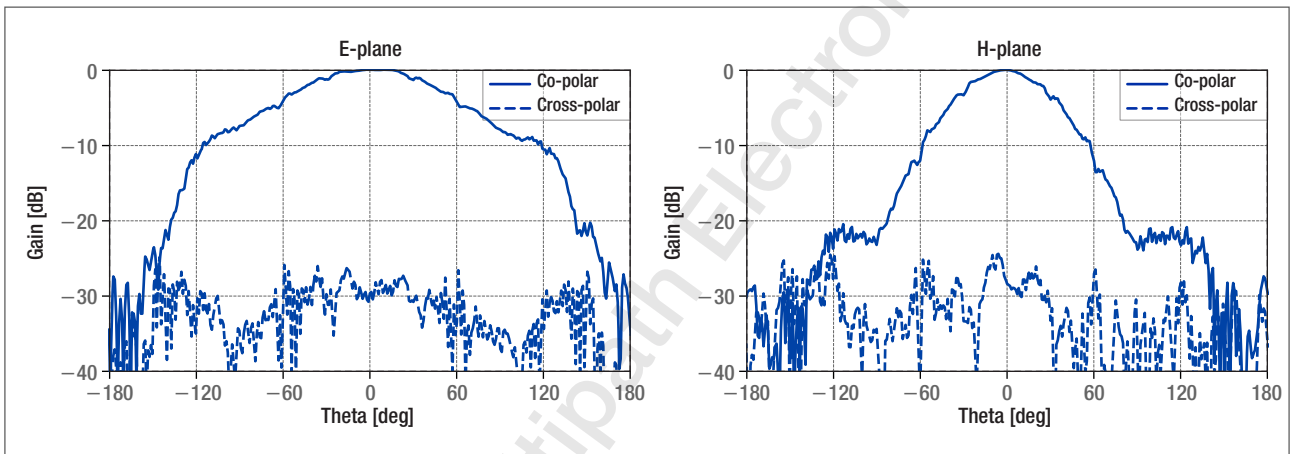


• Radiation patterns

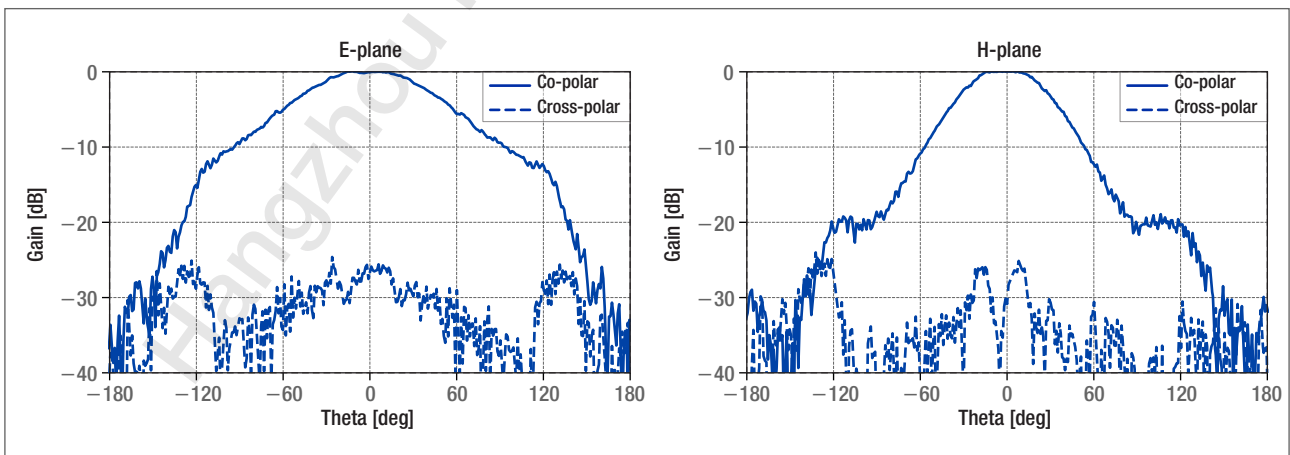
Patterns @ 15.0 GHz



Patterns @ 18.5 GHz



Patterns @ 22.0 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
14.5	3.70	49.72	-27.91	1.56
15.0	3.92	49.79	-28.61	1.62
15.5	4.12	49.87	-29.12	1.66
16.0	4.35	49.92	-30.71	1.68
16.5	4.62	49.92	-30.95	1.60
17.0	4.88	49.92	-30.04	1.43
17.5	5.04	50.01	-29.28	1.51
18.0	5.11	50.18	-29.56	1.77
18.5	5.24	50.30	-29.41	1.88
19.0	5.52	50.24	-27.86	1.75
19.5	5.82	50.17	-29.16	1.48
20.0	5.93	50.28	-27.57	1.43
20.5	6.02	50.41	-28.41	1.69
21.0	6.27	50.37	-26.87	1.61
21.5	6.46	50.38	-28.76	1.40
22.0	6.49	50.55	-26.34	1.56

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
15.0	107.56°	61.11°
18.5	104.02°	55.92°
22.0	90.09°	61.30°



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Technical specifications in this datasheet are subject to change without notice. Actual products may differ from the shown images.