

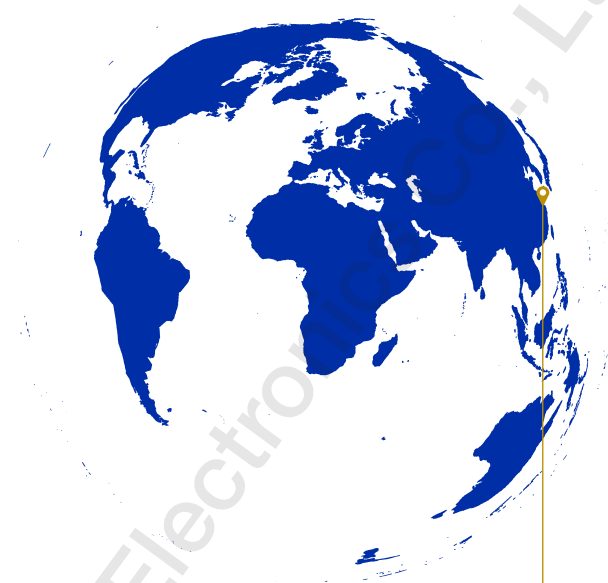


Waveguide Probe Antenna

32.9 - 50.1 GHz



QR code



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

⚙️ Product specifications

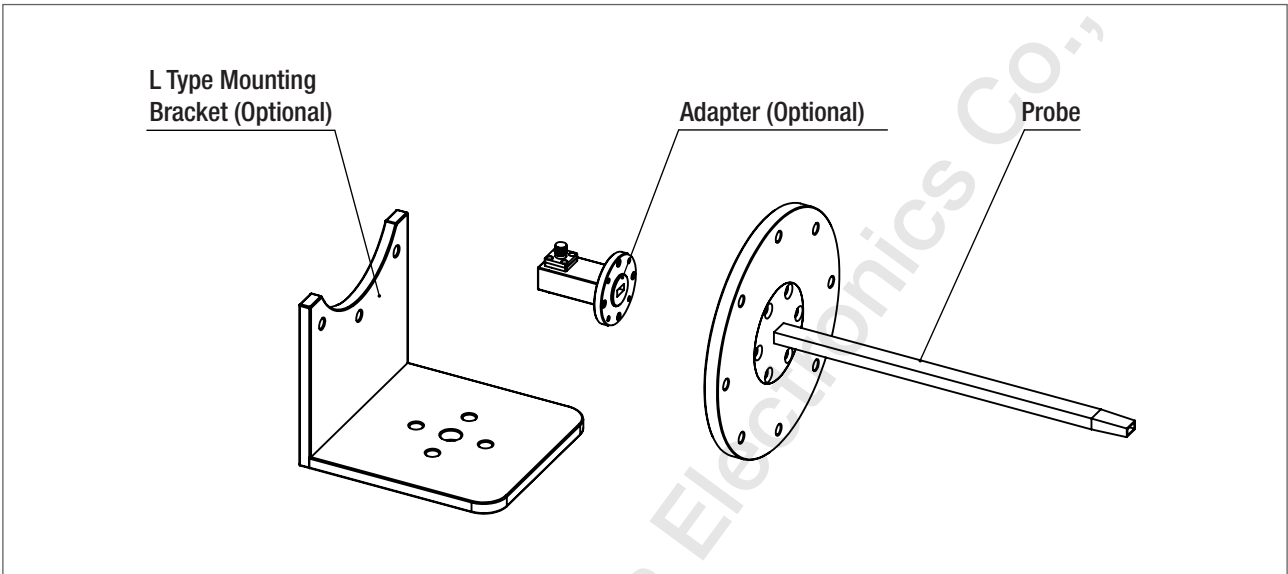
Part number	WP-WR22	Polarization	Single linear
Antenna type	Waveguide Probe Antenna	Gain [dBi]	5 Typ.
Frequency range [GHz]	32.9 – 50.1	3dB beamwidth [deg]	E-plane: 99 Typ. H-plane: 62 Typ.
Waveguide band	WR22	Cross-polarization isolation [dB]	30 Typ.
Dimensions (H x W x L) [mm; inch]	100 x 100 x 160.3; 3.94 x 3.94 x 6.31	VSWR	1.6 Typ.
Weight (approx.) [kg; lb]	0.16; 0.353	Impedance [Ohms]	50
Material	Aluminum	RF connector	2.4-Female

Outline dimensions

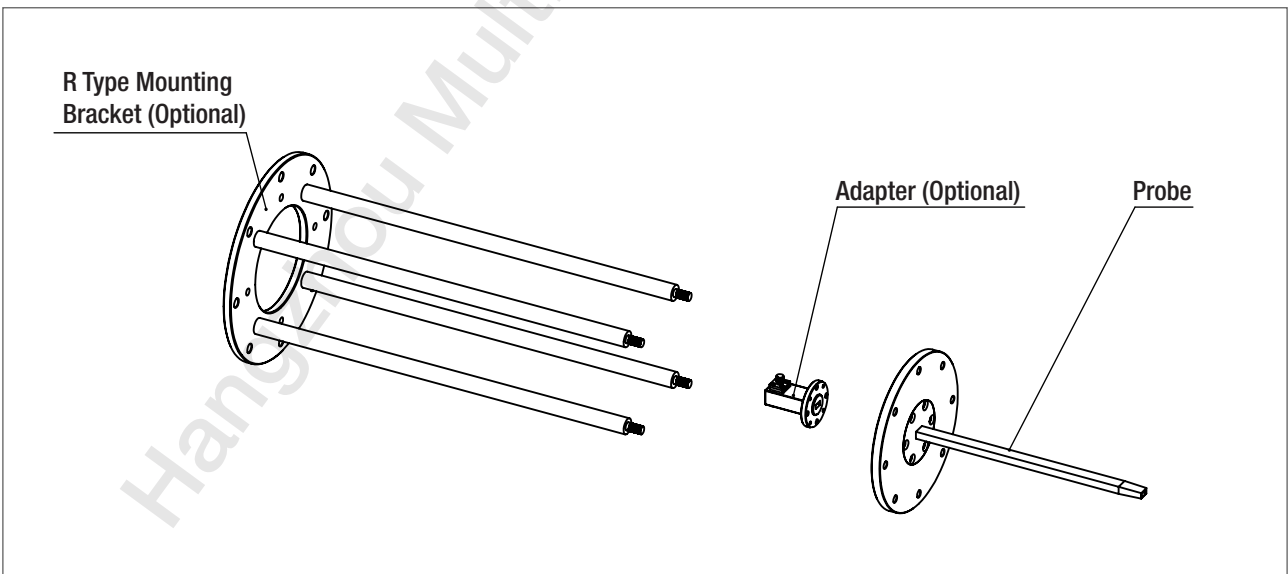
• Assembly dimensional drawing

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.

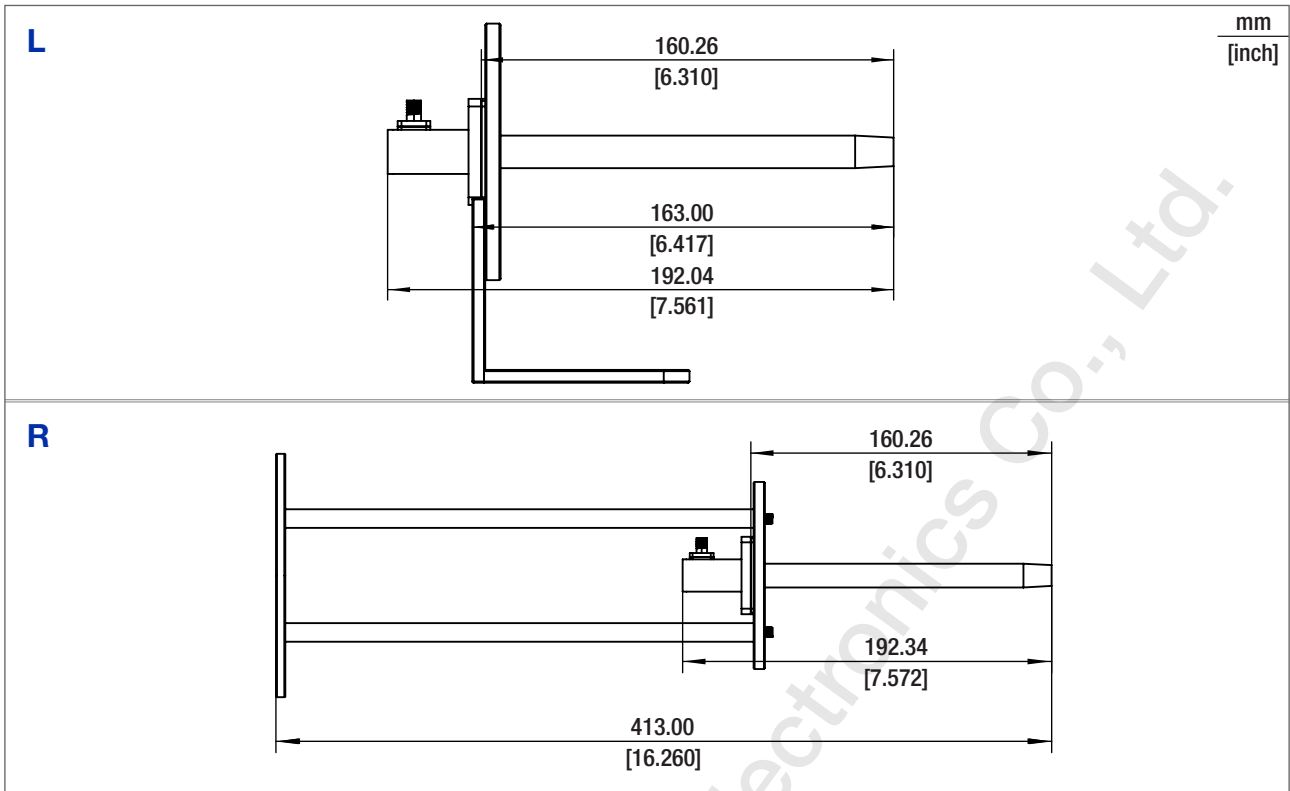
L_detector explosive body



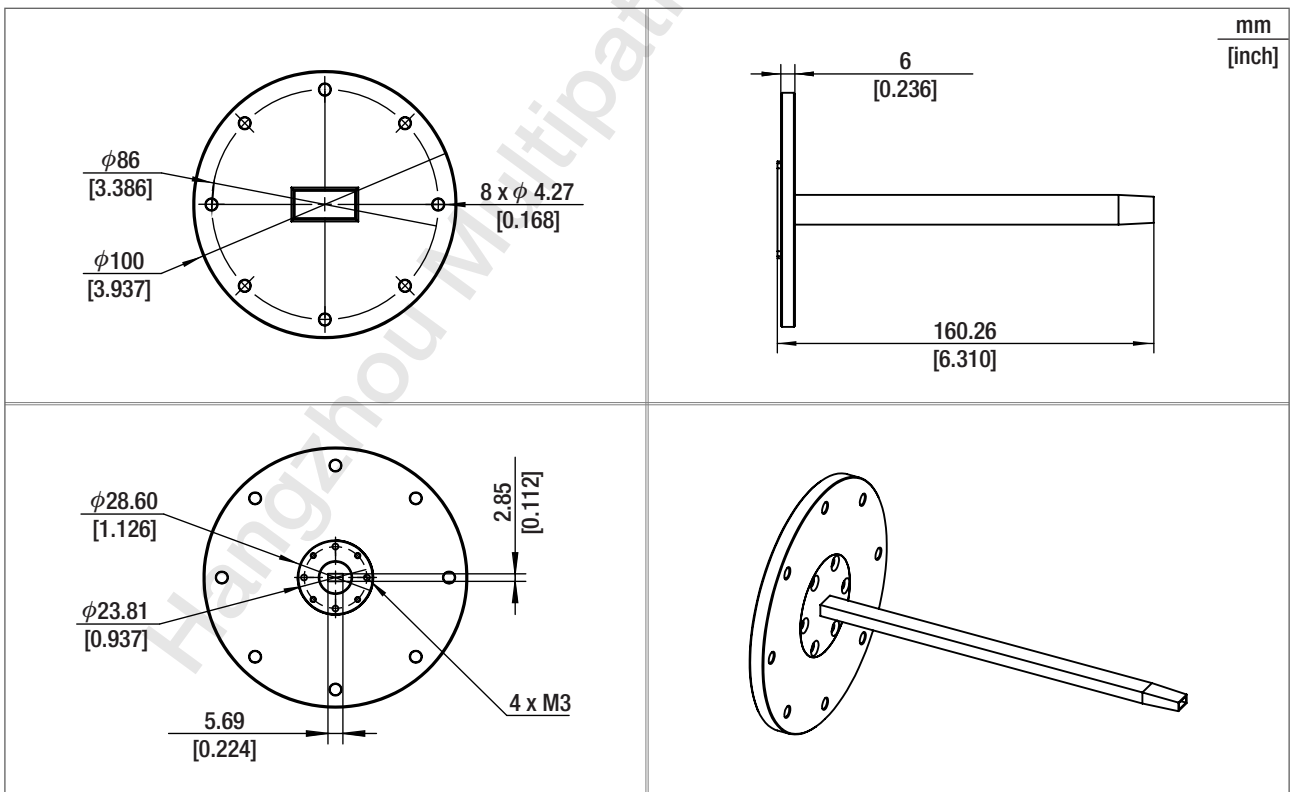
R_detector explosive body



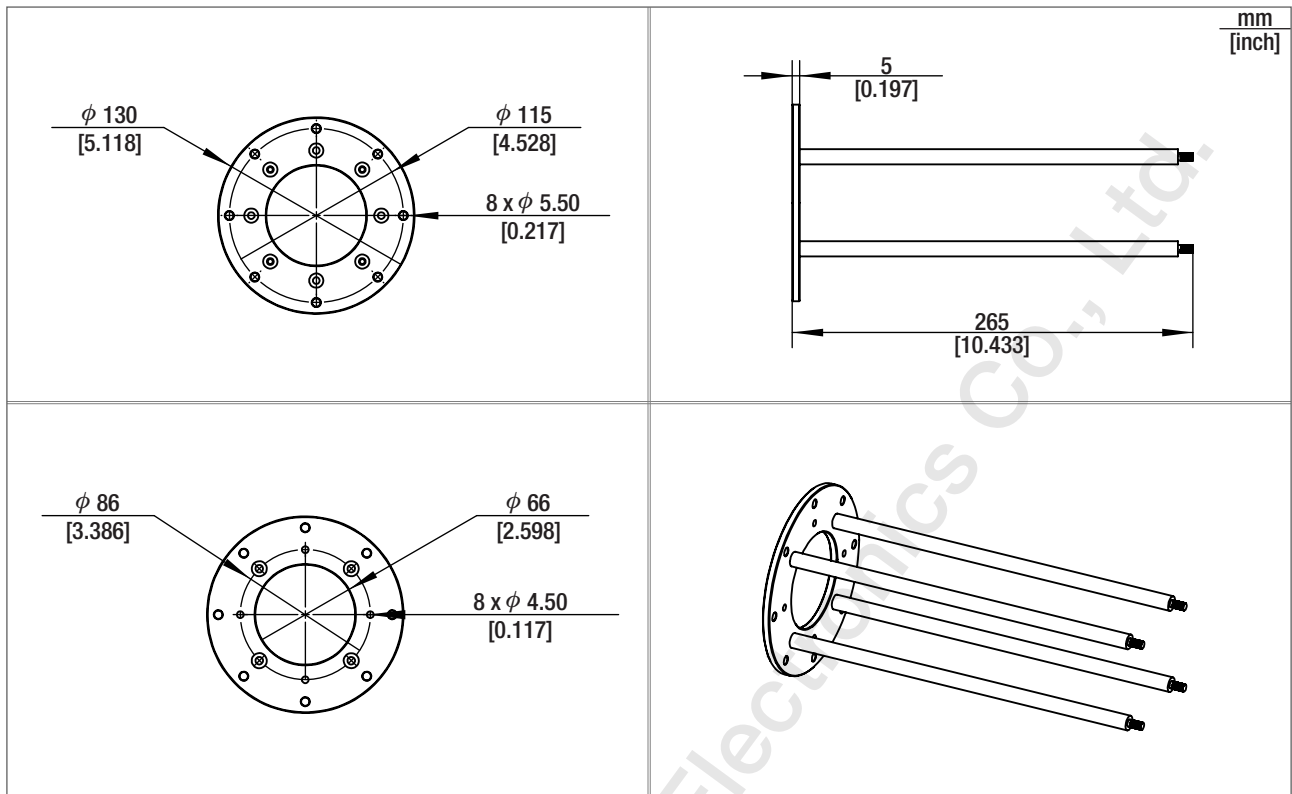
• Side view of the mounting system



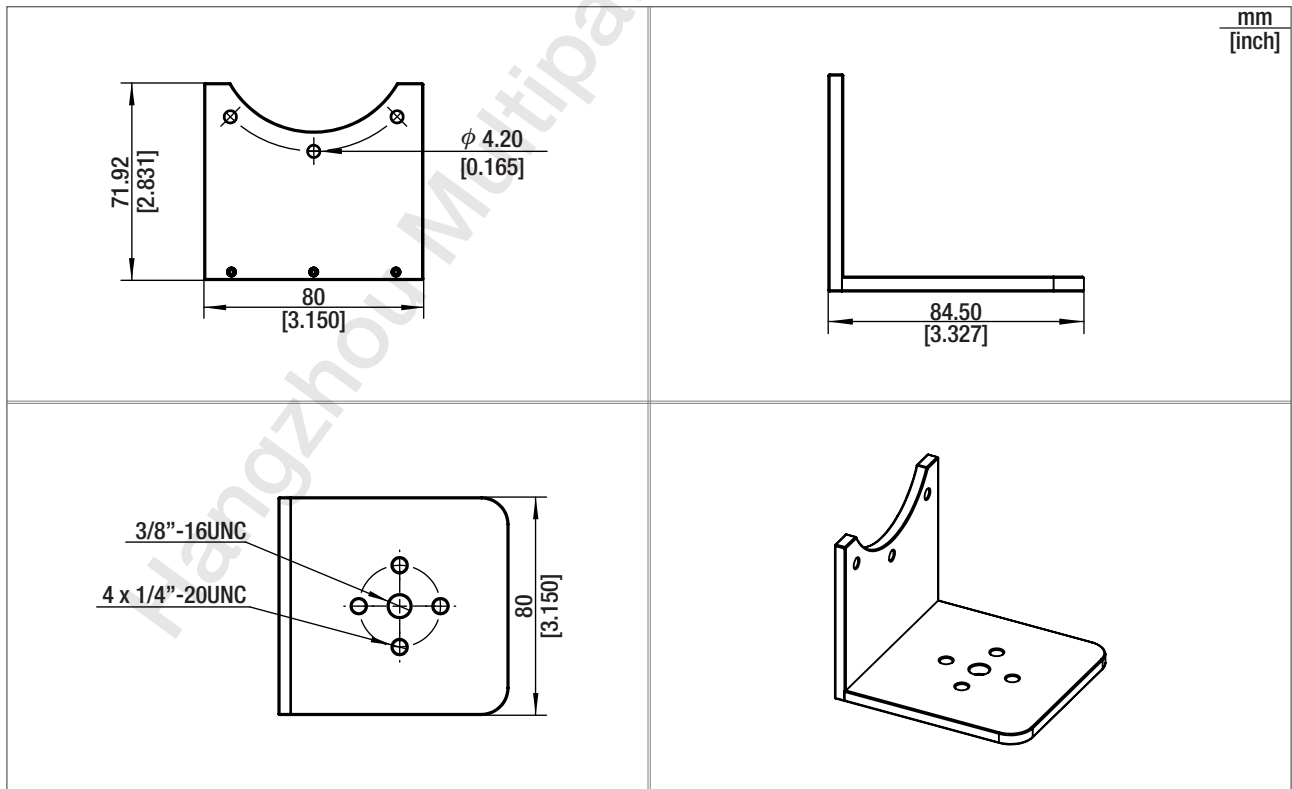
• Dimensional drawing: detectors, WP-WR22



• Dimensional drawing: round mounting bracket (Optional)

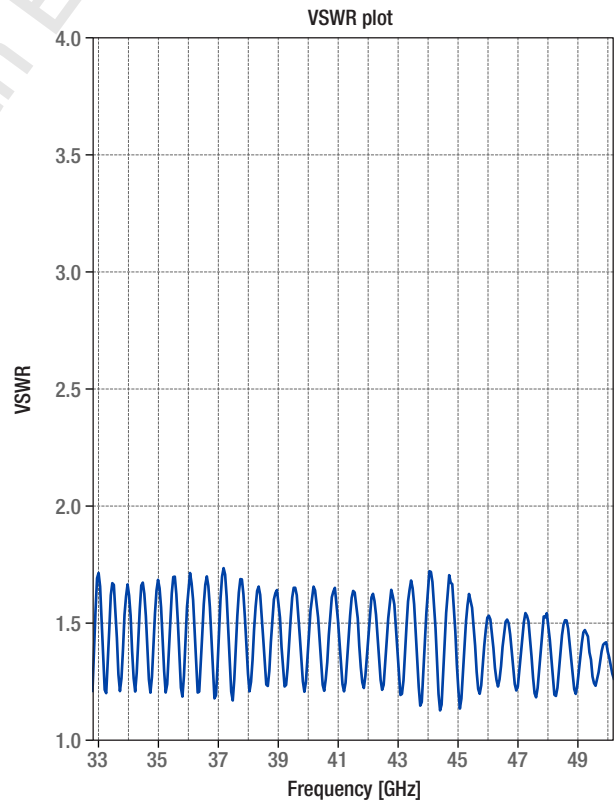
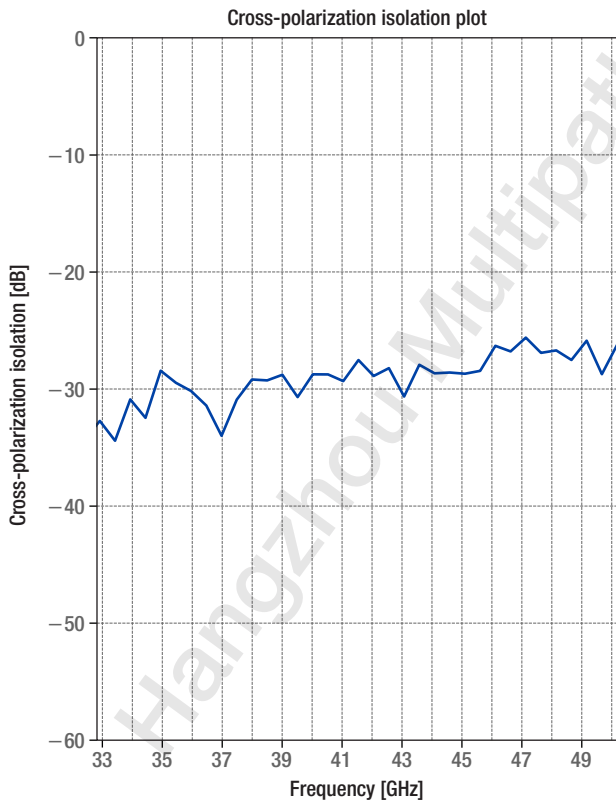
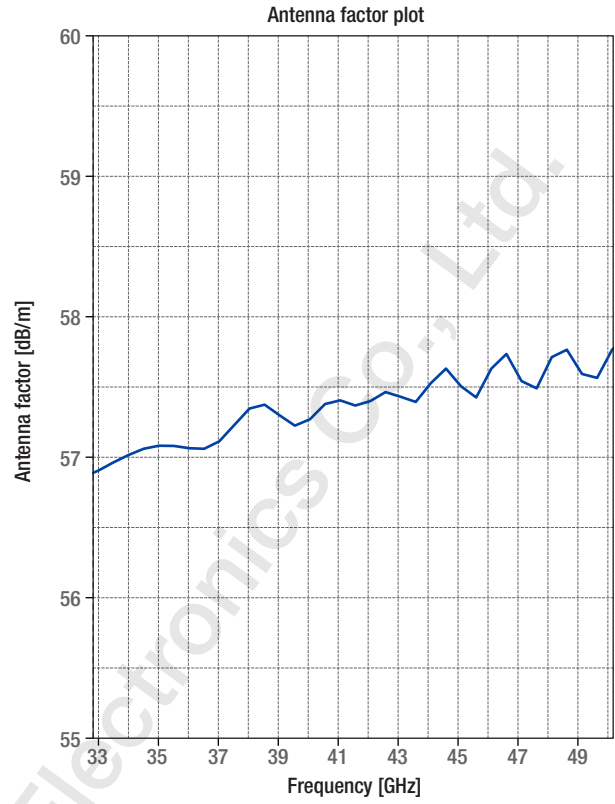
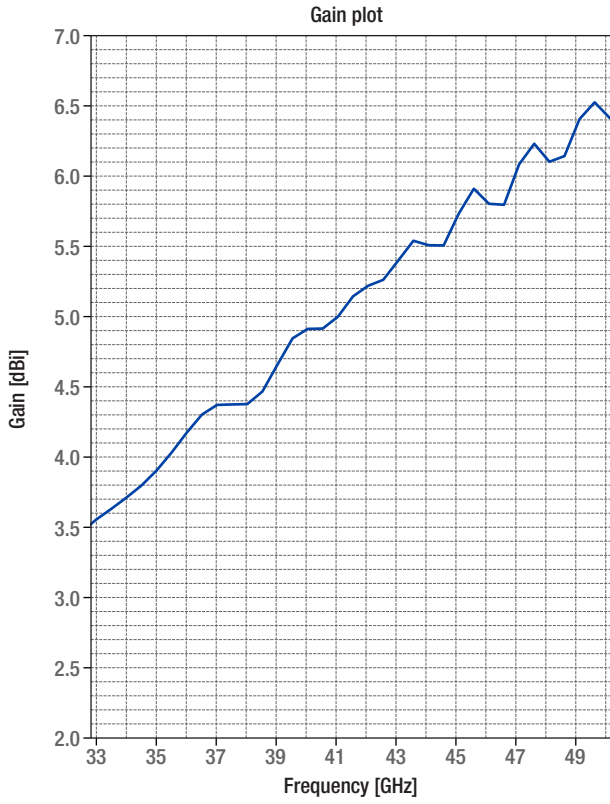


• Dimensional drawing: L type mounting bracket (Optional)



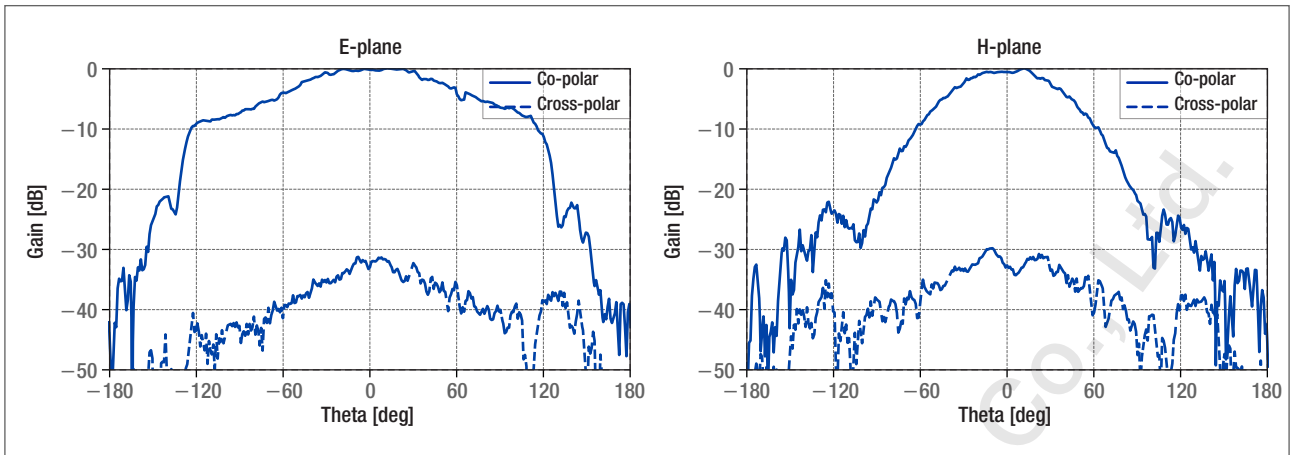
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

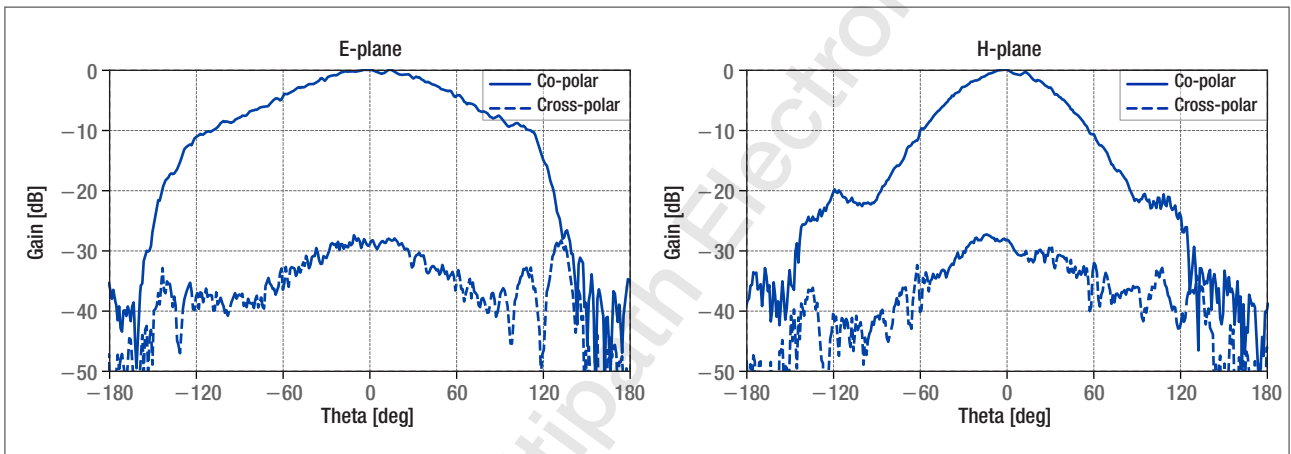


• Radiation patterns

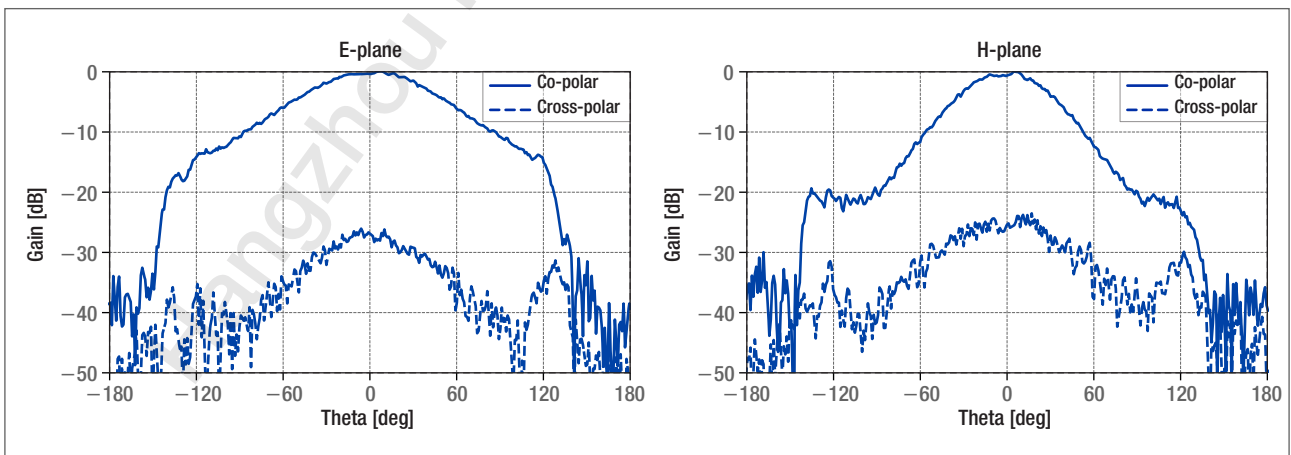
Patterns @ 33 GHz



Patterns @ 40 GHz



Patterns @ 50 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
33	3.64	56.92	-32.59	1.56
34	3.79	57.03	-30.82	1.61
35	3.98	57.09	-28.46	1.64
36	4.24	57.07	-30.13	1.57
37	4.43	57.12	-33.81	1.31
38	4.44	57.35	-29.18	1.28
39	4.71	57.30	-28.79	1.59
40	4.96	57.27	-28.75	1.45
41	5.04	57.40	-29.31	1.42
42	5.26	57.40	-28.89	1.54
43	5.43	57.43	-30.58	1.19
44	5.54	57.52	-28.67	1.72
45	5.75	57.50	-28.70	1.18
46	5.82	57.62	-26.41	1.46
47	6.10	57.54	-25.74	1.45
48	6.11	57.70	-26.79	1.28
49	6.41	57.59	-25.99	1.46
50	6.42	57.75	-26.33	1.26

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
33	103.67°	63.29°
40	98.85°	62.03°
50	79.80°	55.72°



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