



Waveguide Probe Antenna

39.2 - 59.6 GHz



QR code



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

⚙️ Product specifications

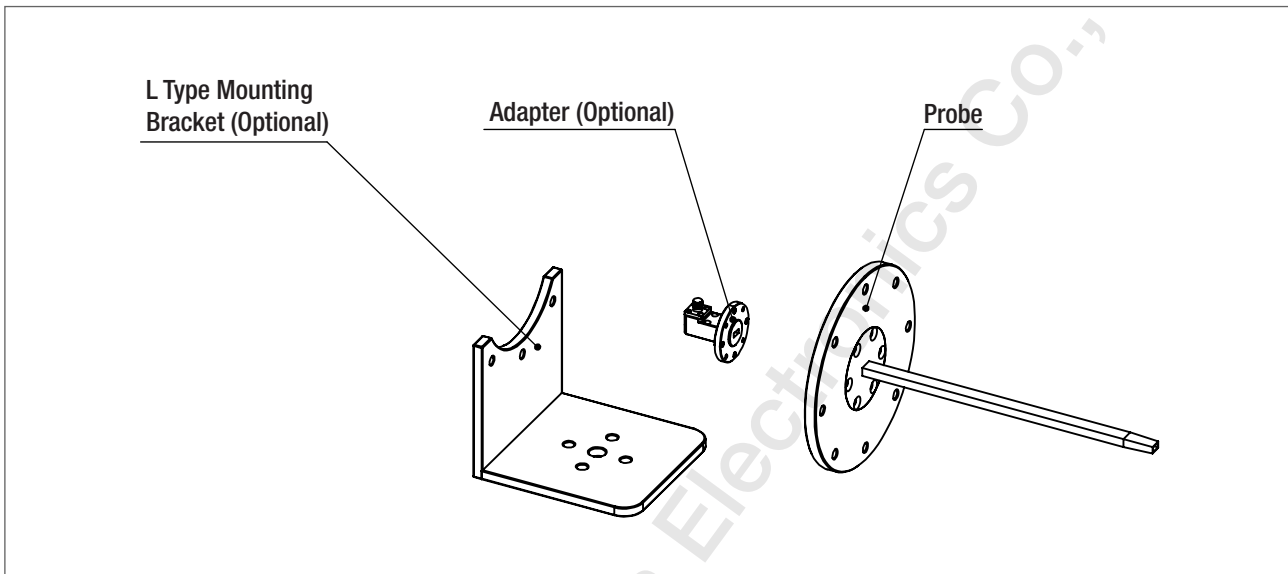
Part number	WP-WR19	Polarization	Single linear
Antenna type	Waveguide Probe Antenna	Gain [dBi]	6 Typ.
Frequency range [GHz]	39.2 – 59.6	3dB beamwidth [deg]	E-plane: 92 Typ. H-plane: 72 Typ.
Waveguide band	WR19	Cross-polarization isolation [dB]	40 Typ.
Dimensions (H x W x L) [mm; inch]	100 x 100 x 161.26; 3.94 x 3.94 x 6.35	VSWR	1.7 Typ.
Weight (approx.) [kg; lb]	0.23; 0.507	Impedance [Ohms]	50
Material	Cu (Gold plated)	RF connector	1.85-Female

Outline dimensions

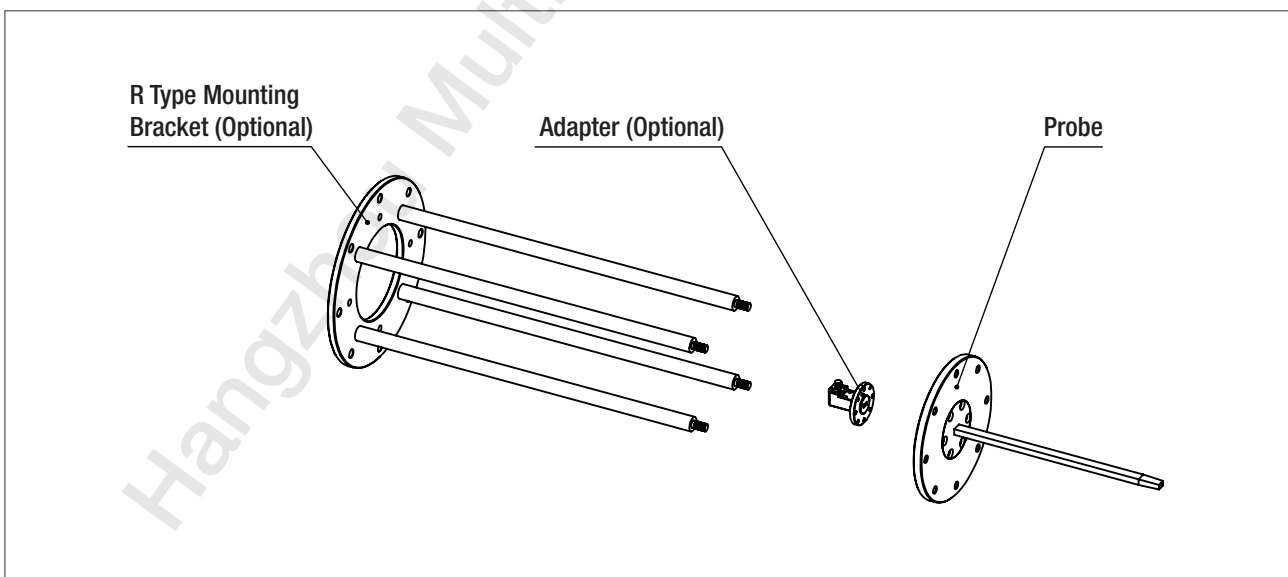
• Assembly dimensional drawing

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.

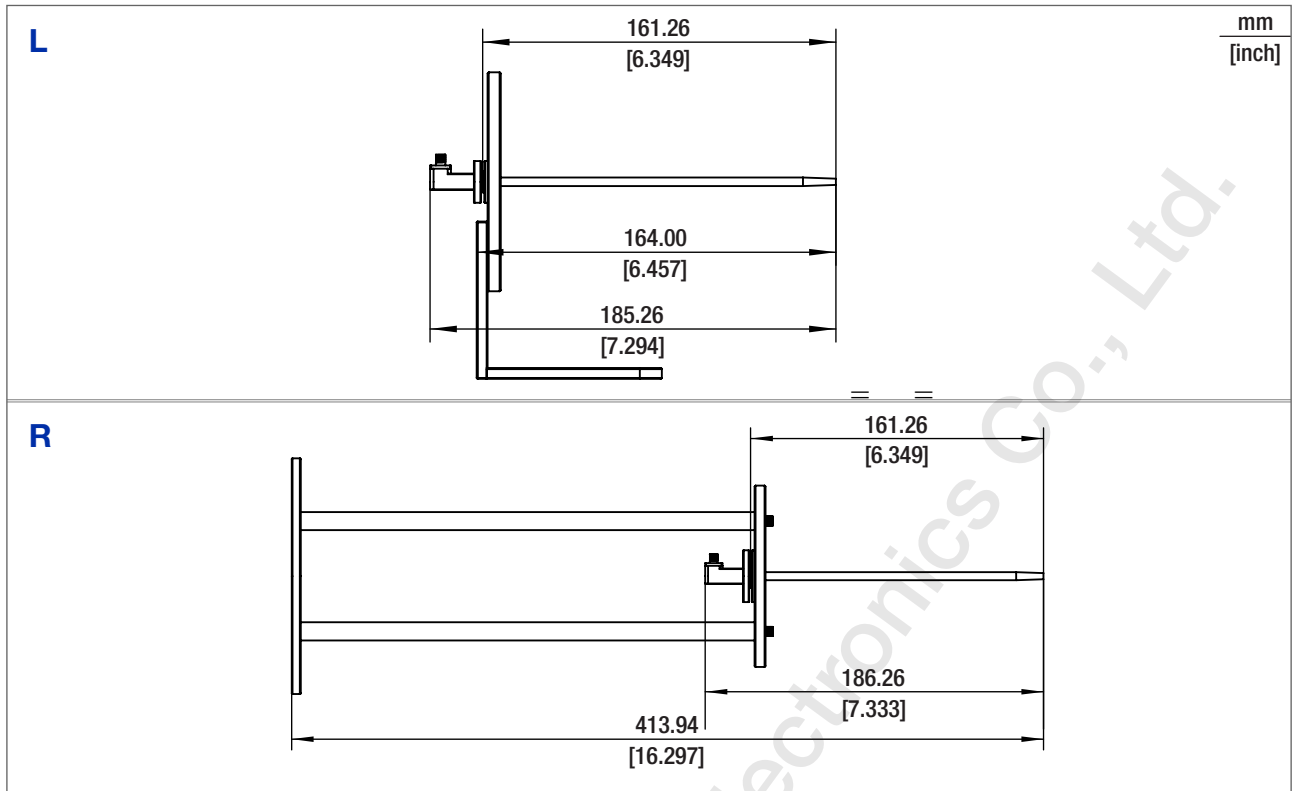
L_detector explosive body



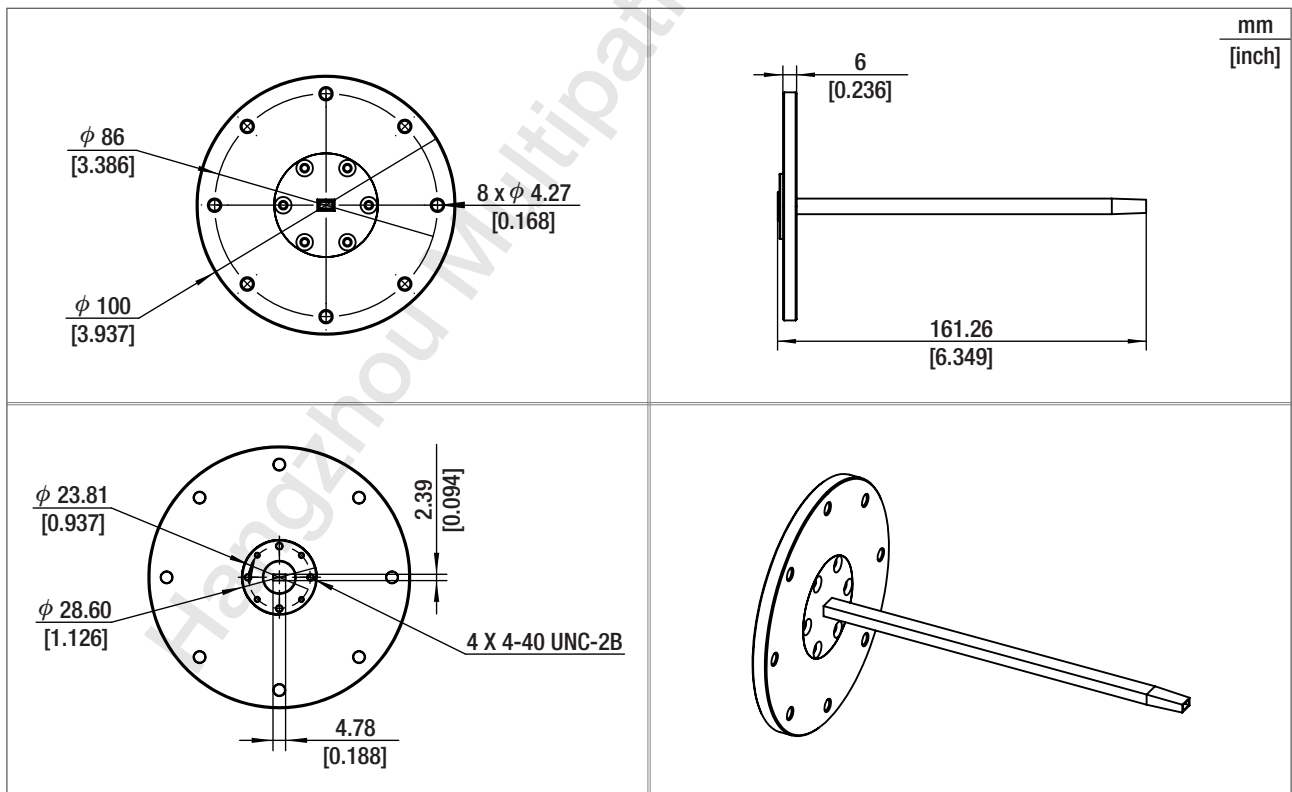
R_detector explosive body



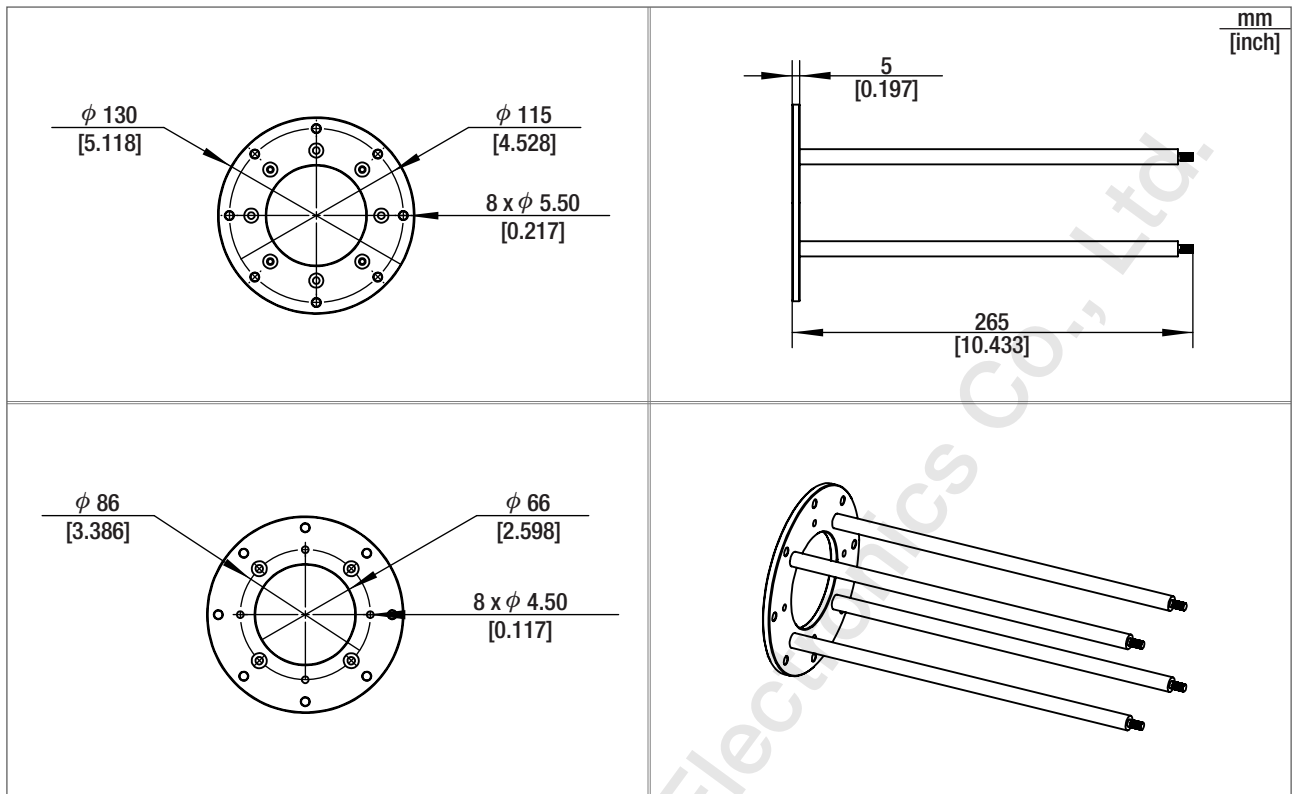
• Side view of the mounting system



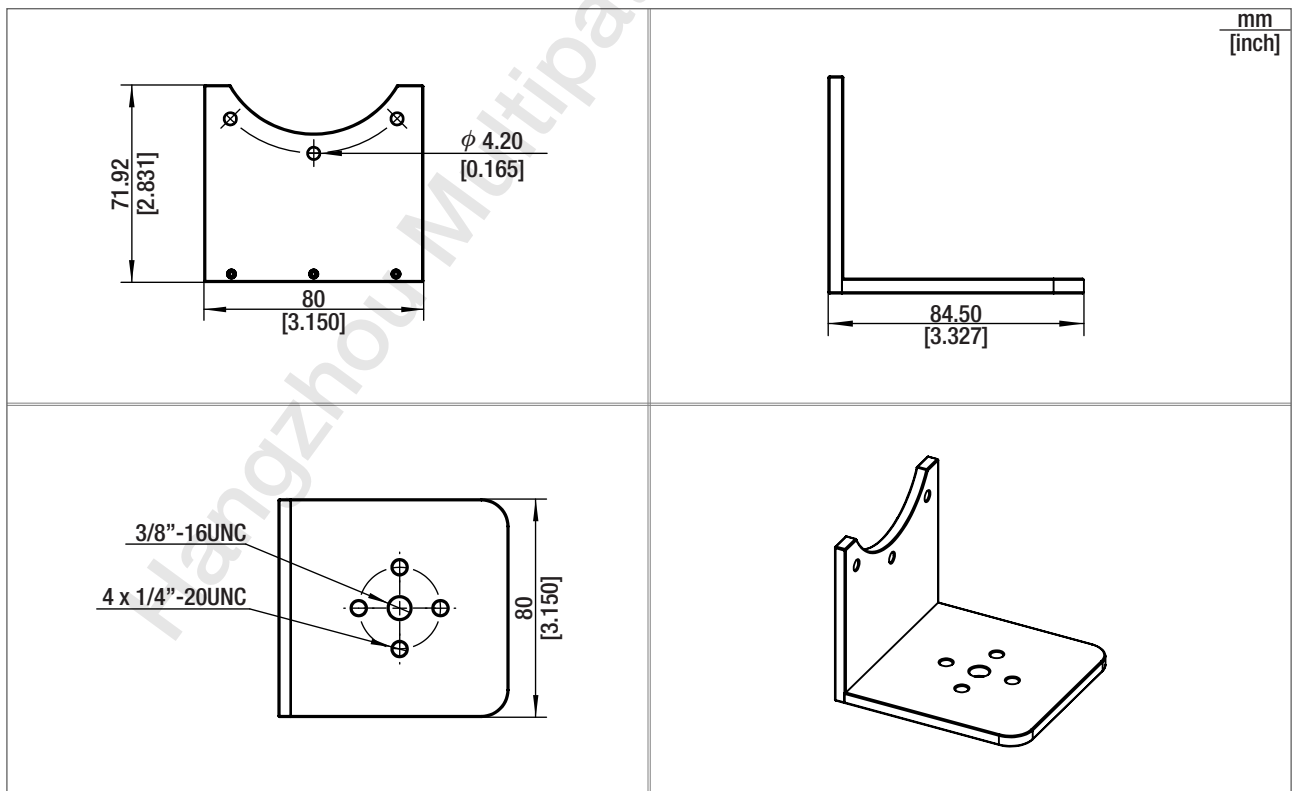
• Dimensional drawing: detectors, WP-WR19



• Dimensional drawing: round mounting bracket (Optional)

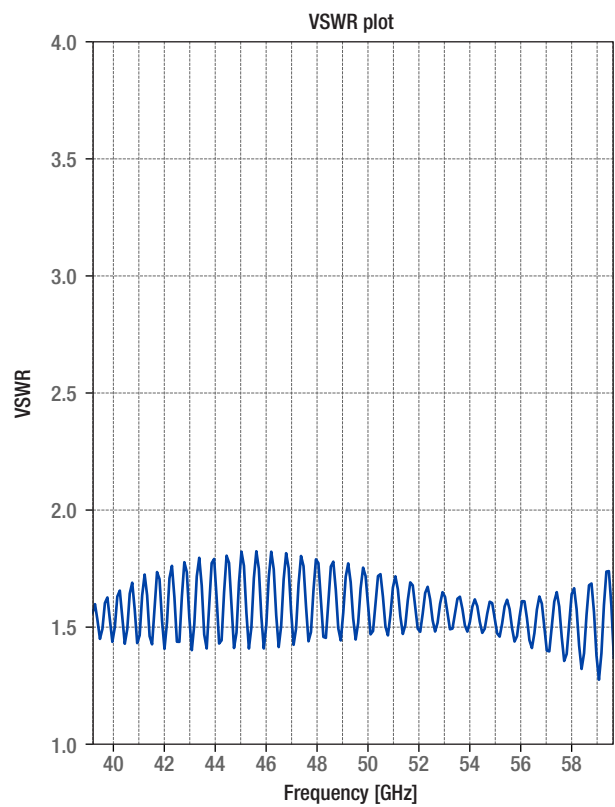
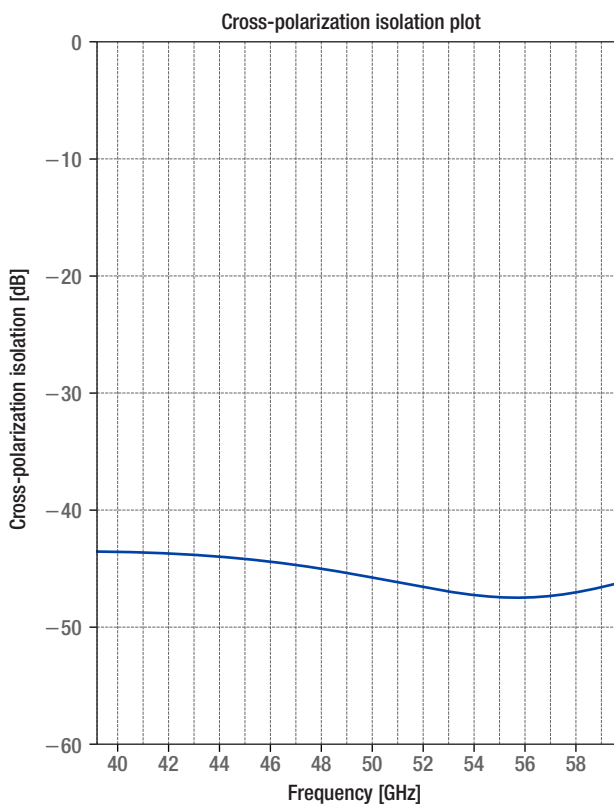
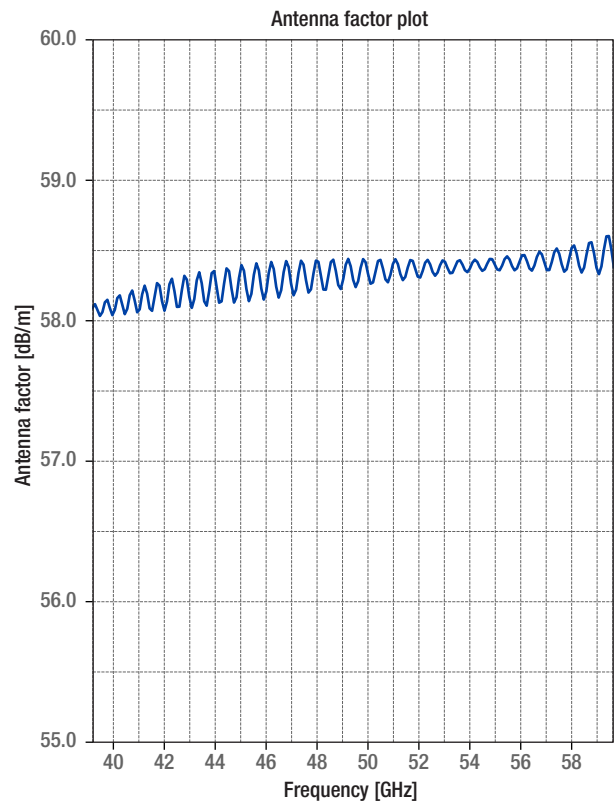
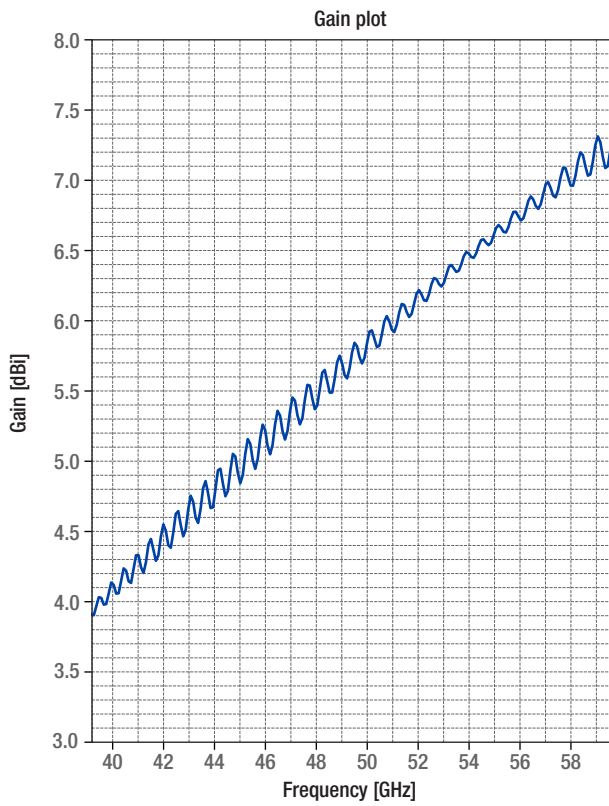


• Dimensional drawing: L type mounting bracket (Optional)



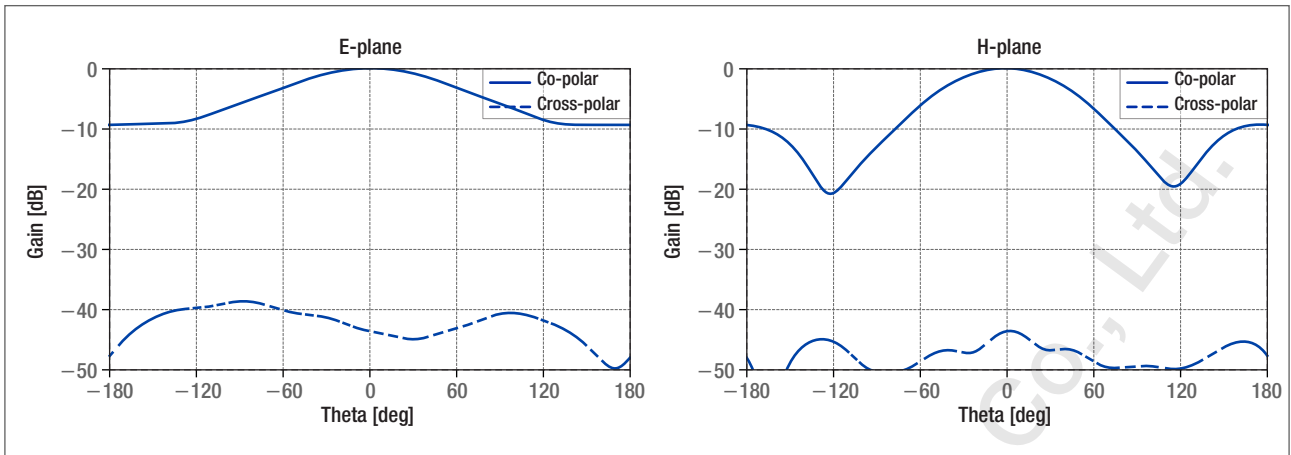
Electrical characteristics

• Gain & Antenna factor & Cross-polarization isolation & VSWR

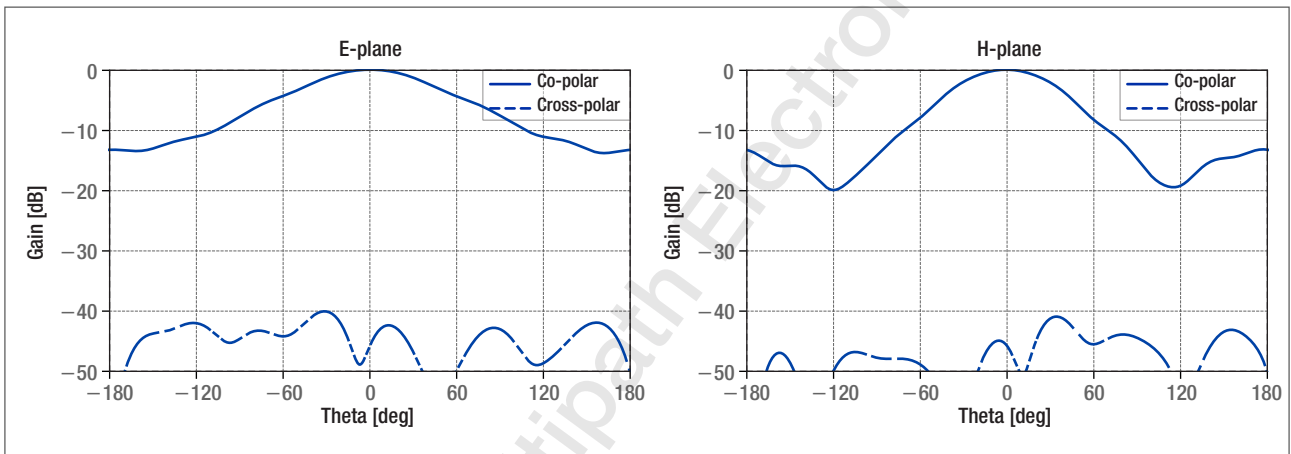


• Radiation patterns

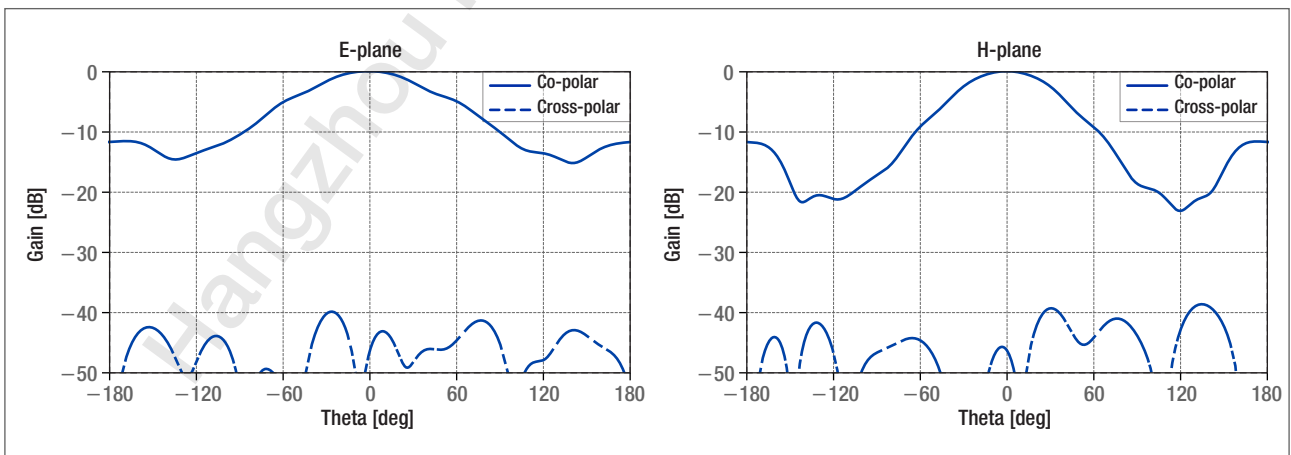
Patterns @ 39 GHz



Patterns @ 50 GHz



Patterns @ 60 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
40	4.06	58.17	-43.47	1.63
41	4.25	58.20	-43.52	1.63
42	4.51	58.15	-43.61	1.52
43	4.76	58.10	-43.73	1.40
44	4.81	58.25	-43.88	1.62
45	4.85	58.41	-44.07	1.82
46	5.23	58.22	-44.30	1.51
47	5.36	58.27	-44.57	1.57
48	5.38	58.44	-44.88	1.79
49	5.76	58.23	-45.24	1.44
50	5.74	58.43	-45.62	1.72
51	6.01	58.34	-46.02	1.55
52	6.13	58.38	-46.42	1.59
53	6.27	58.40	-46.80	1.60
54	6.47	58.37	-47.11	1.51
55	6.55	58.45	-47.32	1.61
56	6.79	58.37	-47.39	1.44
57	6.81	58.50	-47.30	1.63
58	7.10	58.36	-47.04	1.35
59	7.04	58.56	-46.65	1.68

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
39	114.07°	81.70°
50	92.14°	71.98°
60	78.51°	64.65°



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