

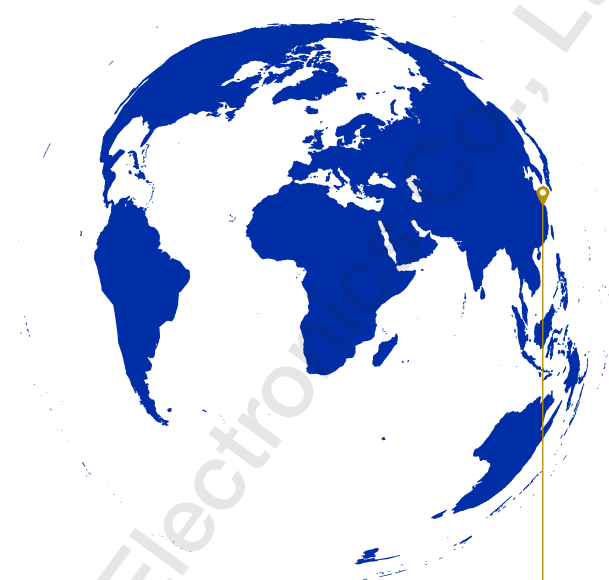


Waveguide Probe Antenna

49.8 - 75.8 GHz



QR code



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

⚙️ Product specifications

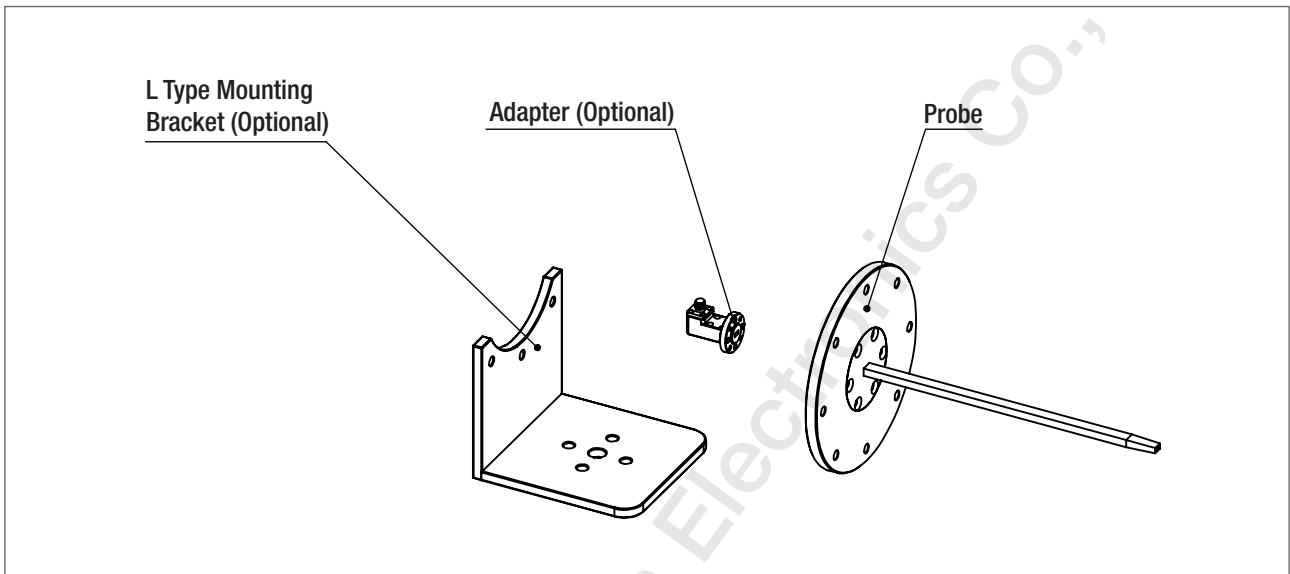
Part number	WP-WR15	Polarization	Single linear
Antenna type	Waveguide Probe Antenna	Gain [dBi]	6 Typ.
Frequency range [GHz]	49.8 – 75.8	3dB beamwidth [deg]	E-plane: 92 Typ. H-plane: 67 Typ.
Waveguide band	WR15	Cross-polarization isolation [dB]	40 Typ.
Dimensions (H x W x L) [mm; inch]	100 x 100 x 161.26; 3.94 x 3.94 x 6.35	VSWR	1.7 Typ.
Weight (approx.) [kg; lb]	0.19; 0.418	Impedance [Ohms]	50
Material	Cu (Gold plated)	RF connector	1.0-Female

Outline dimensions

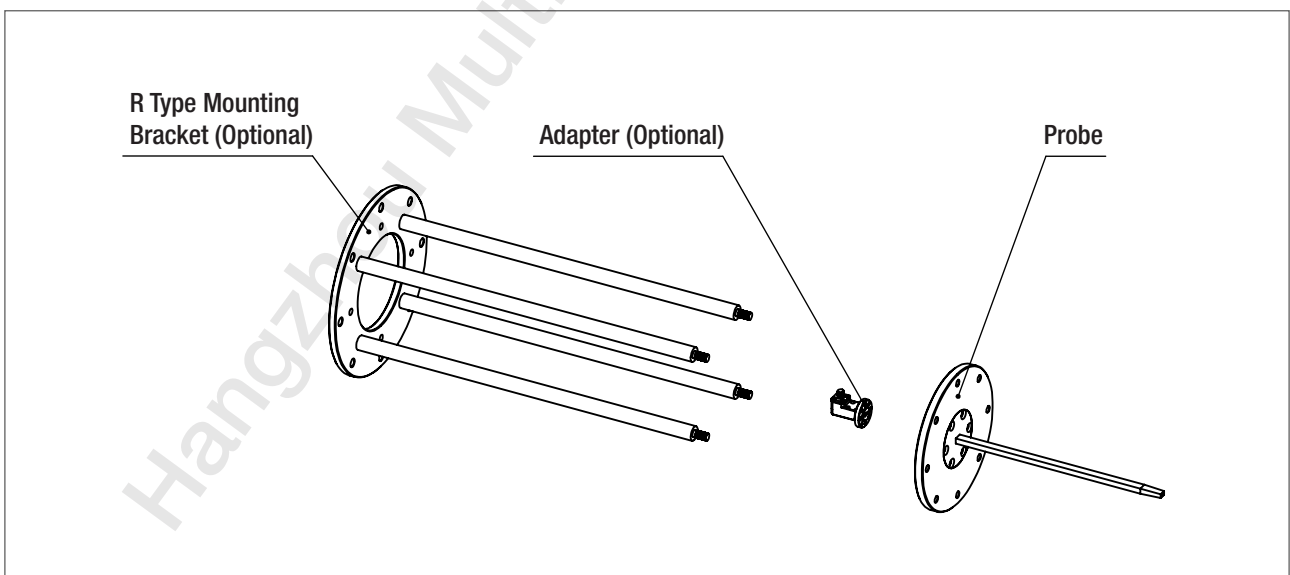
• Assembly dimensional drawing

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.

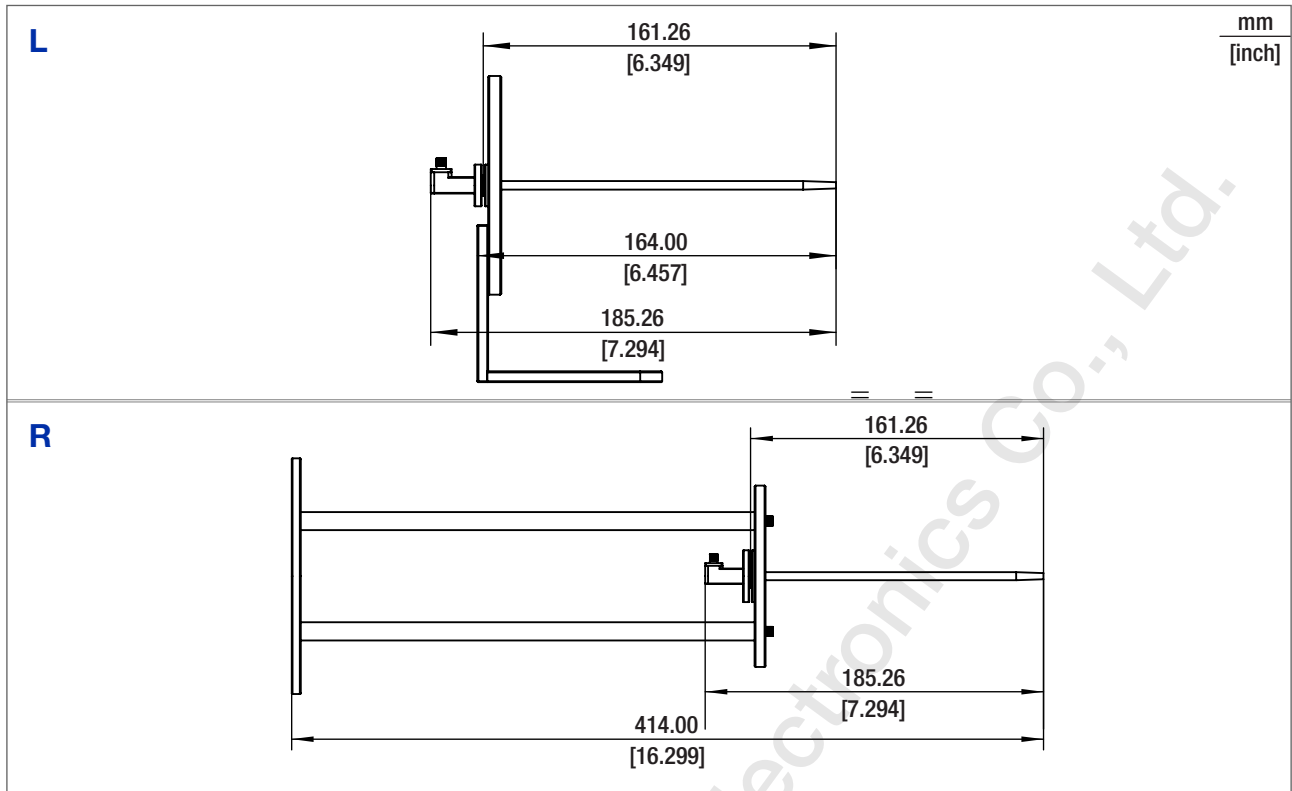
L_detector explosive body



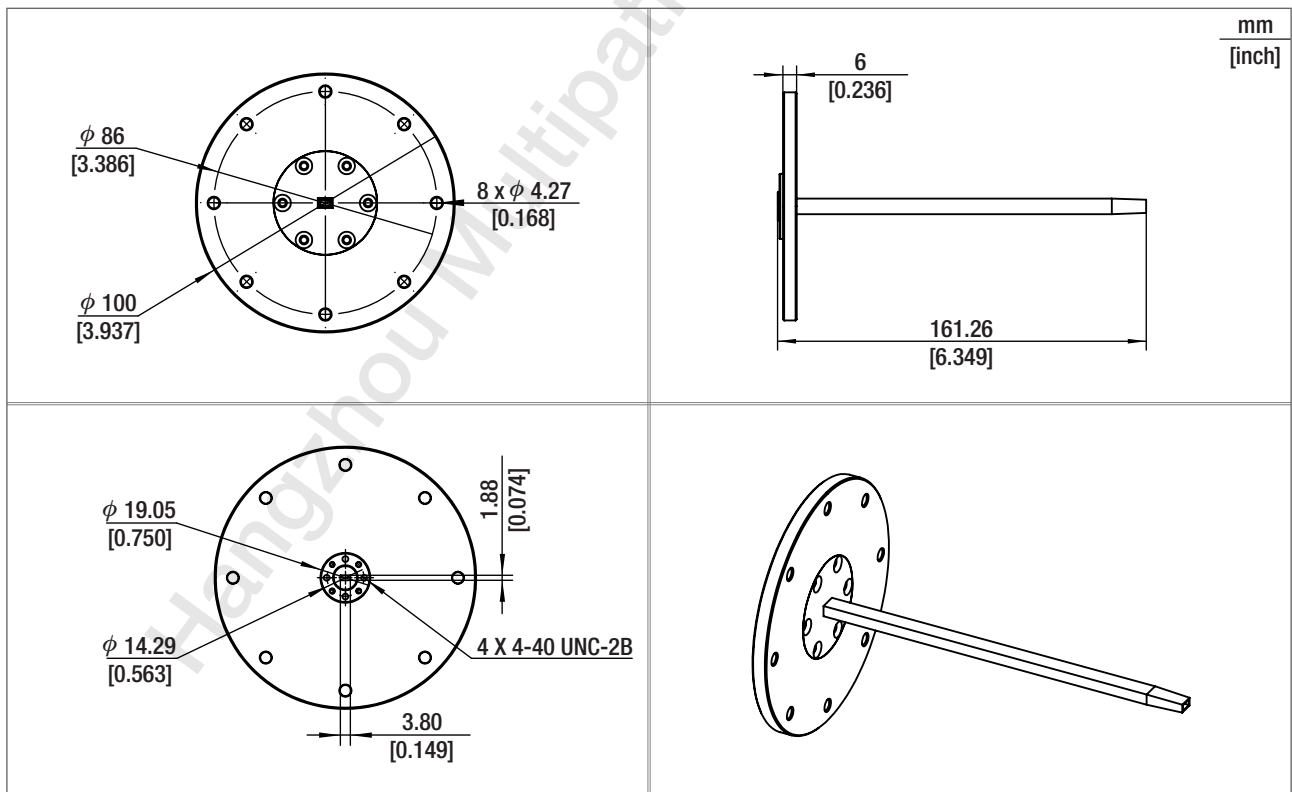
R_detector explosive body



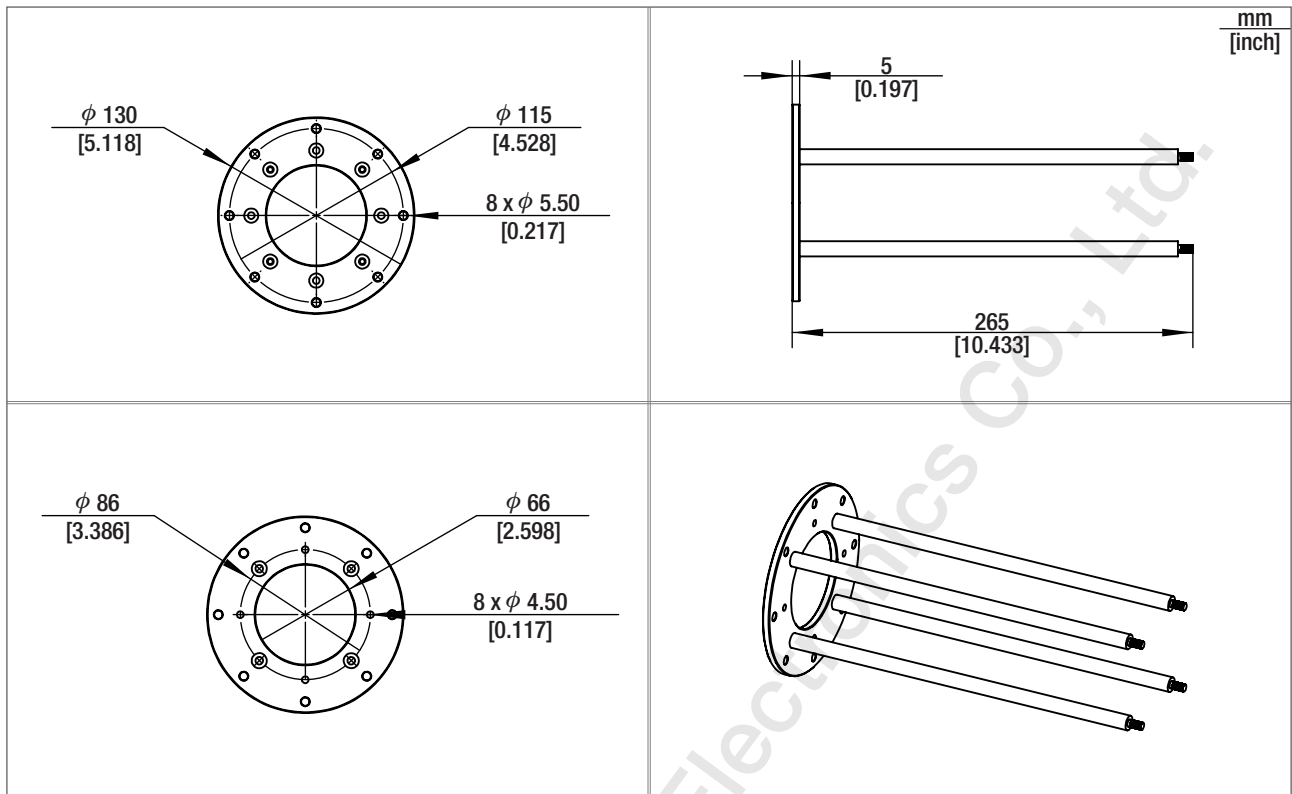
• Side view of the mounting system



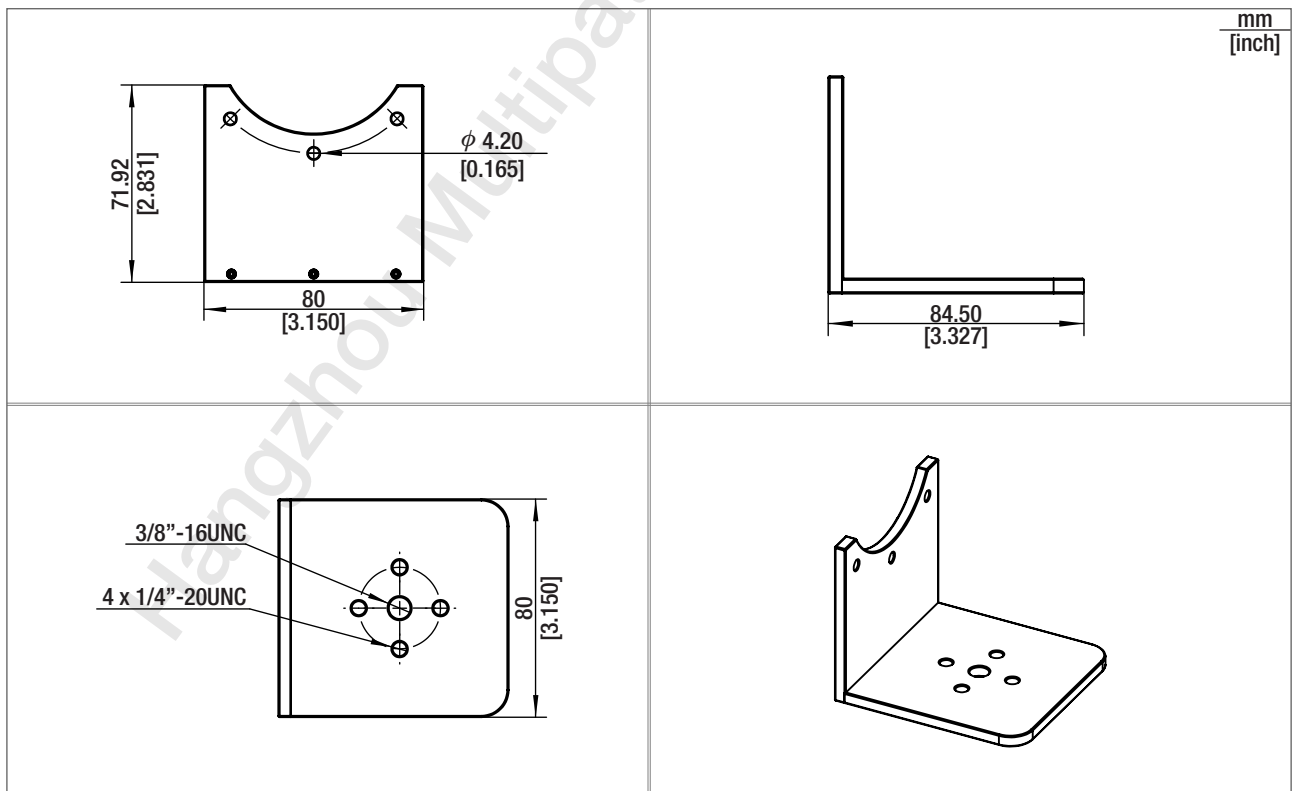
• Dimensional drawing: detectors, WP-WR15



• Dimensional drawing: round mounting bracket (Optional)

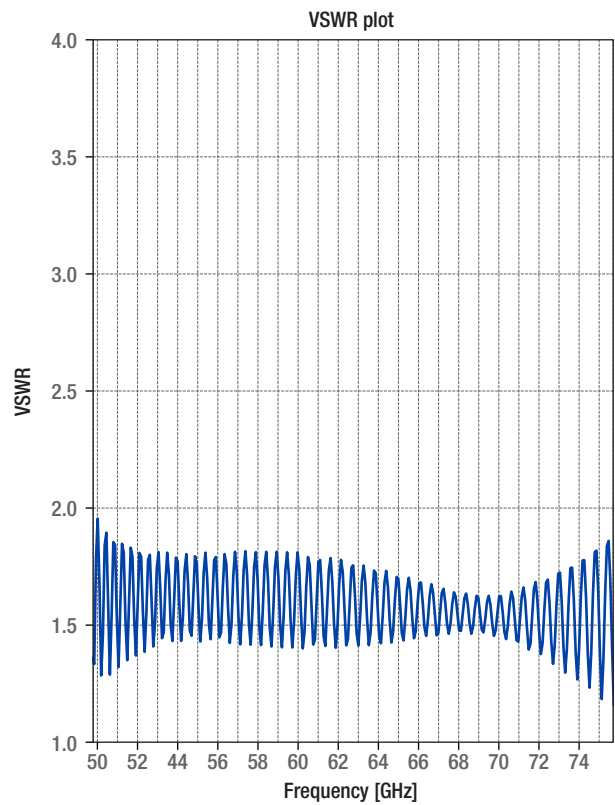
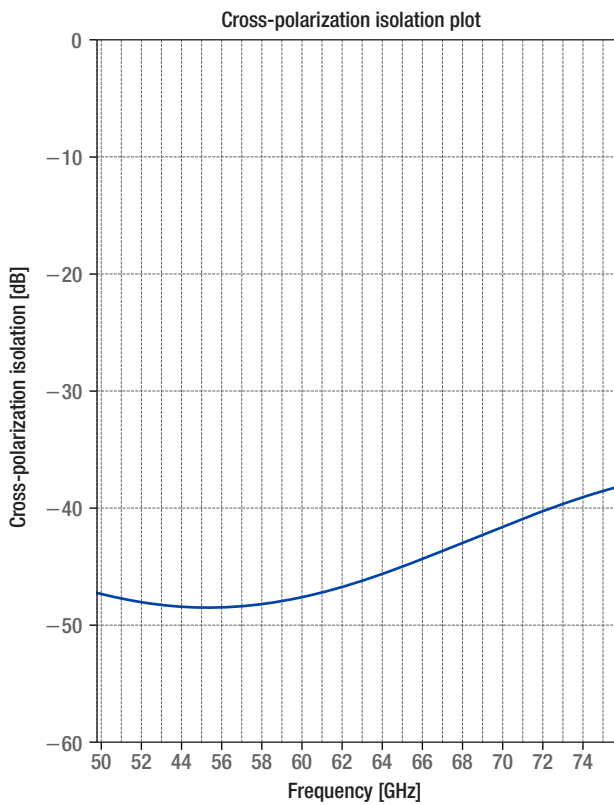
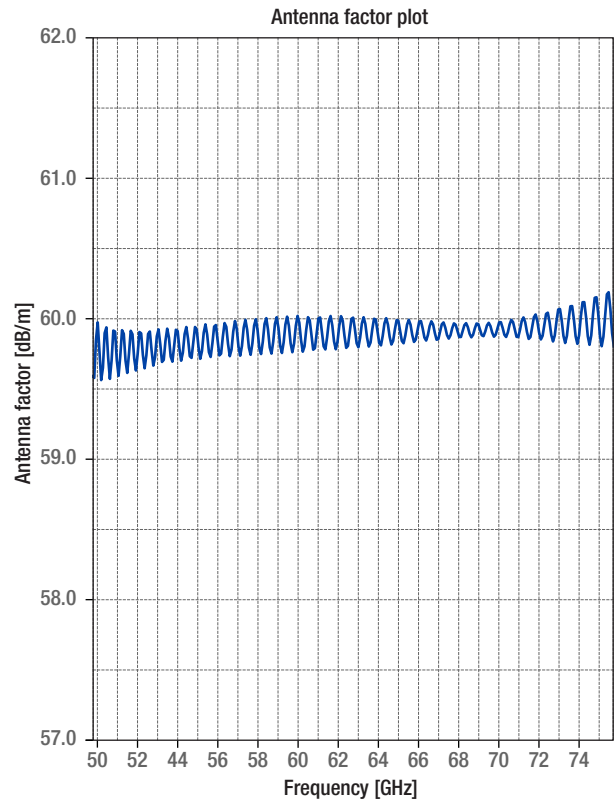
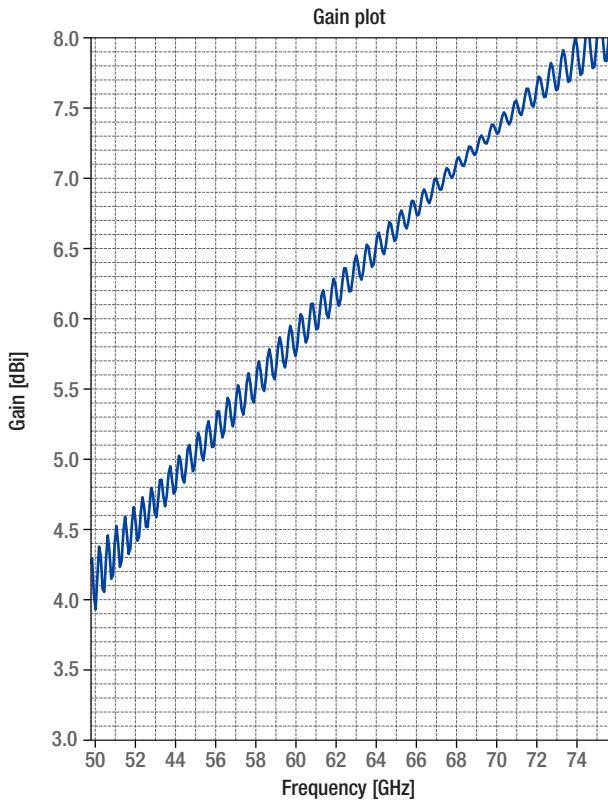


• Dimensional drawing: L type mounting bracket (Optional)



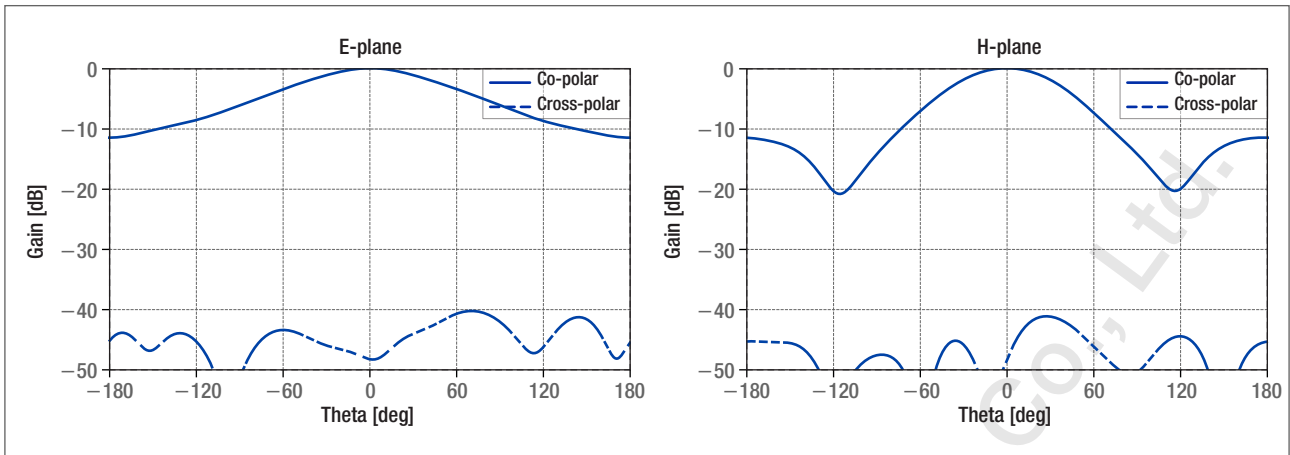
Electrical characteristics

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

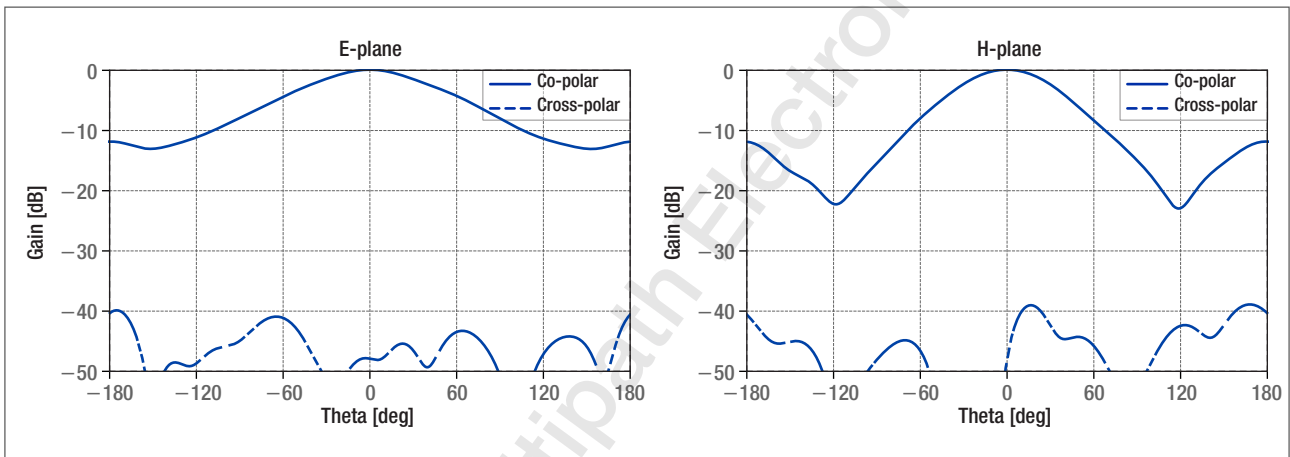


• Radiation patterns

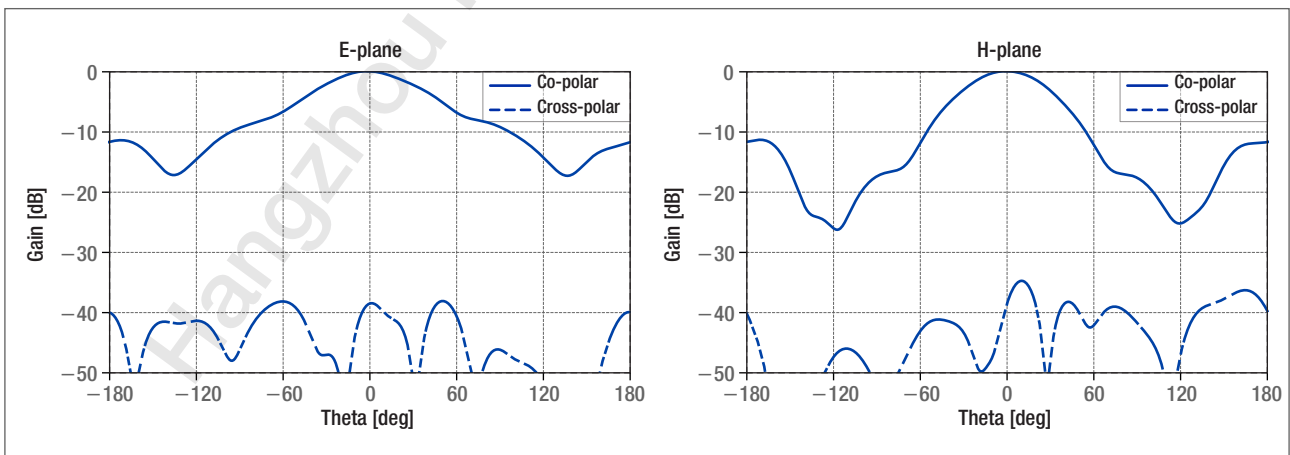
Patterns @ 50 GHz



Patterns @ 60 GHz



Patterns @ 78 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
50	4.57	59.60	-48.08	1.33
51	4.71	59.63	-48.32	1.37
52	4.83	59.68	-48.51	1.43
53	4.90	59.77	-48.63	1.57
54	4.93	59.91	-48.69	1.75
55	5.07	59.93	-48.68	1.76
56	5.39	59.76	-48.61	1.49
57	5.53	59.78	-48.48	1.49
58	5.47	59.99	-48.30	1.80
59	5.79	59.82	-48.05	1.52
60	5.92	59.83	-47.75	1.53
61	5.91	59.99	-47.39	1.76
62	6.27	59.77	-46.99	1.39
63	6.18	59.99	-46.54	1.74
64	6.50	59.82	-46.05	1.45
65	6.50	59.94	-45.52	1.65
66	6.72	59.86	-44.96	1.52
67	6.80	59.92	-44.38	1.58
68	6.95	59.89	-43.79	1.54
69	7.07	59.90	-43.19	1.53
70	7.18	59.92	-42.58	1.56
71	7.33	59.89	-41.98	1.49
72	7.39	59.94	-41.39	1.58
73	7.57	59.89	-40.81	1.47
74	7.63	59.94	-40.26	1.55
75	7.72	59.97	-39.73	1.58

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
50	108.67°	75.25°
60	92.39°	67.21°
78	72.46°	58.45°



Multipath Electronics

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