



# Waveguide Probe Antenna

73.8 - 112.0 GHz



QR code



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

## ⚙️ Product specifications

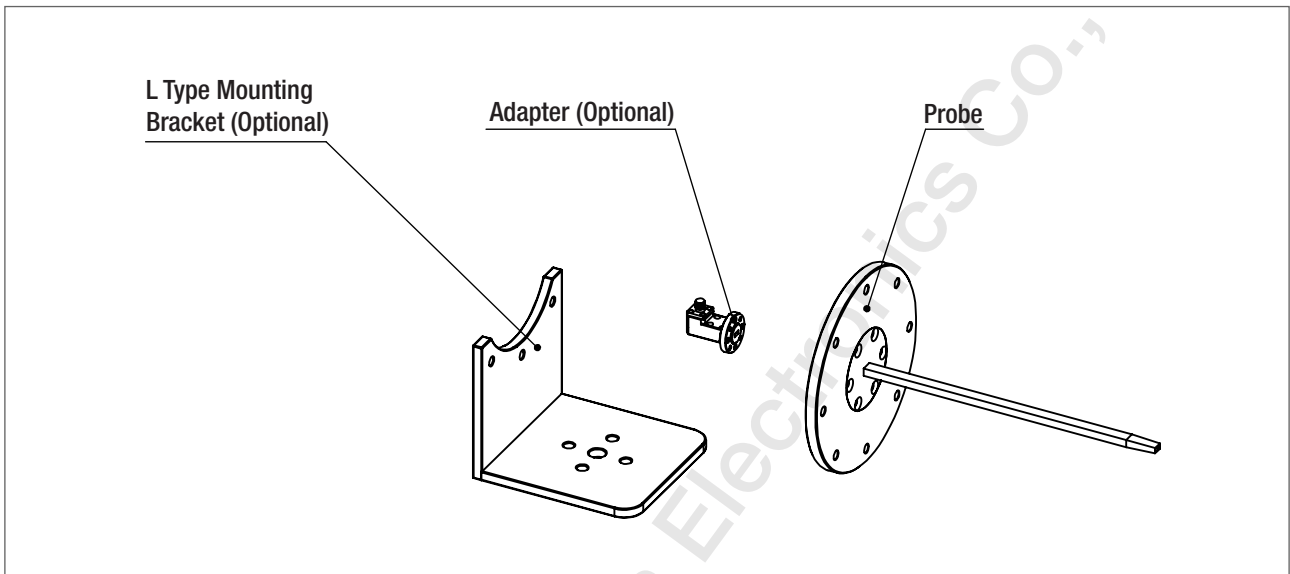
Part number	WP-WR10	Polarization	Single linear
Antenna type	Waveguide Probe Antenna	Gain [dBi]	6 Typ.
Frequency range [GHz]	73.8 – 112.0	3dB beamwidth [deg]	E-plane: 99 Typ. H-plane: 67 Typ.
Waveguide band	WR10	Cross-polarization isolation [dB]	50 Typ.
Dimensions (H x W x L) [mm; inch]	100 x 100 x 161.26; 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

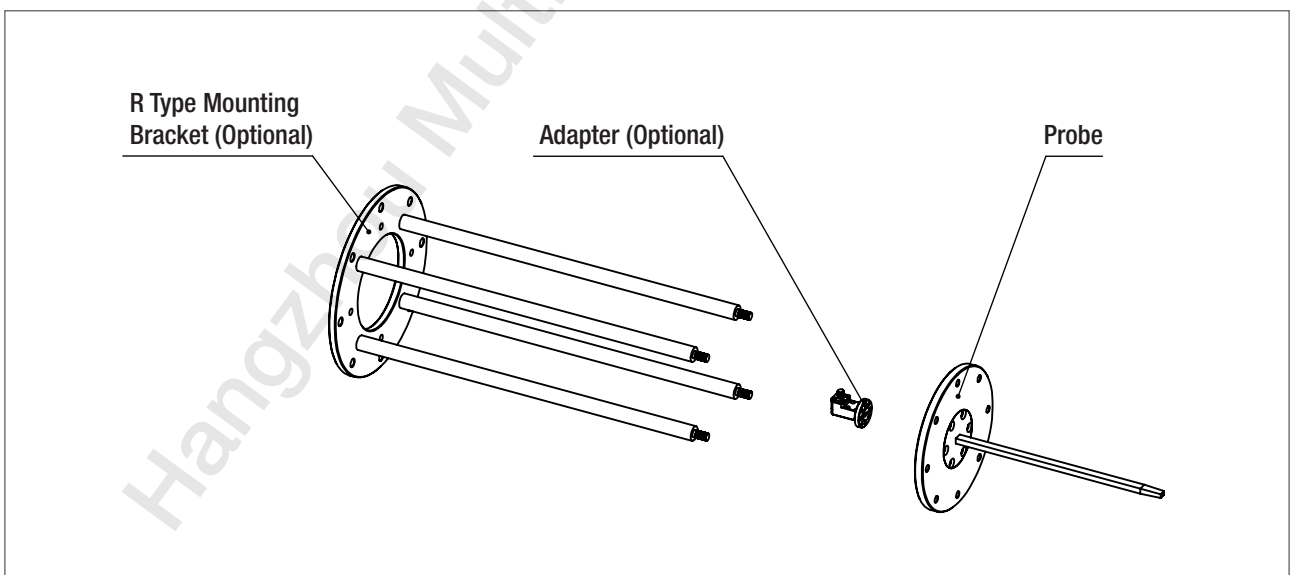
### • Assembly dimensional drawing

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.

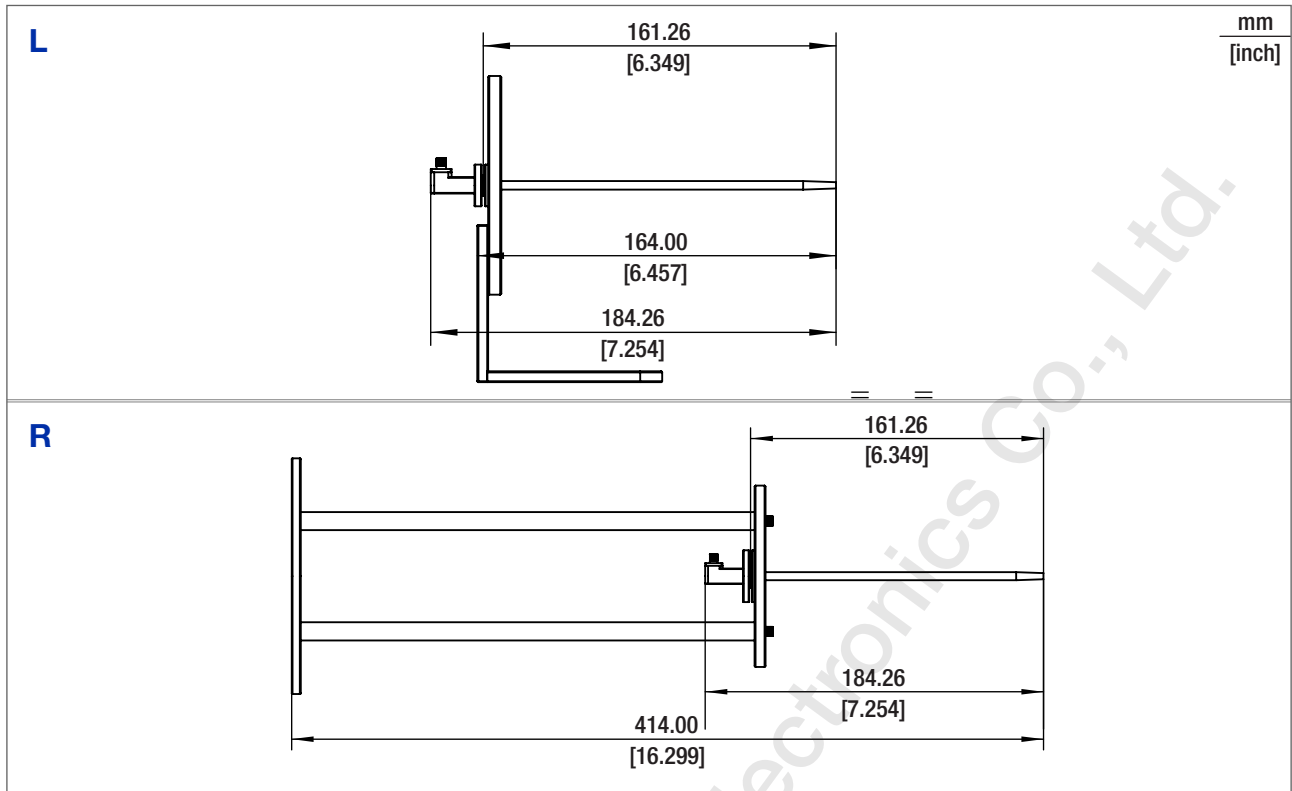
L\_detector explosive body



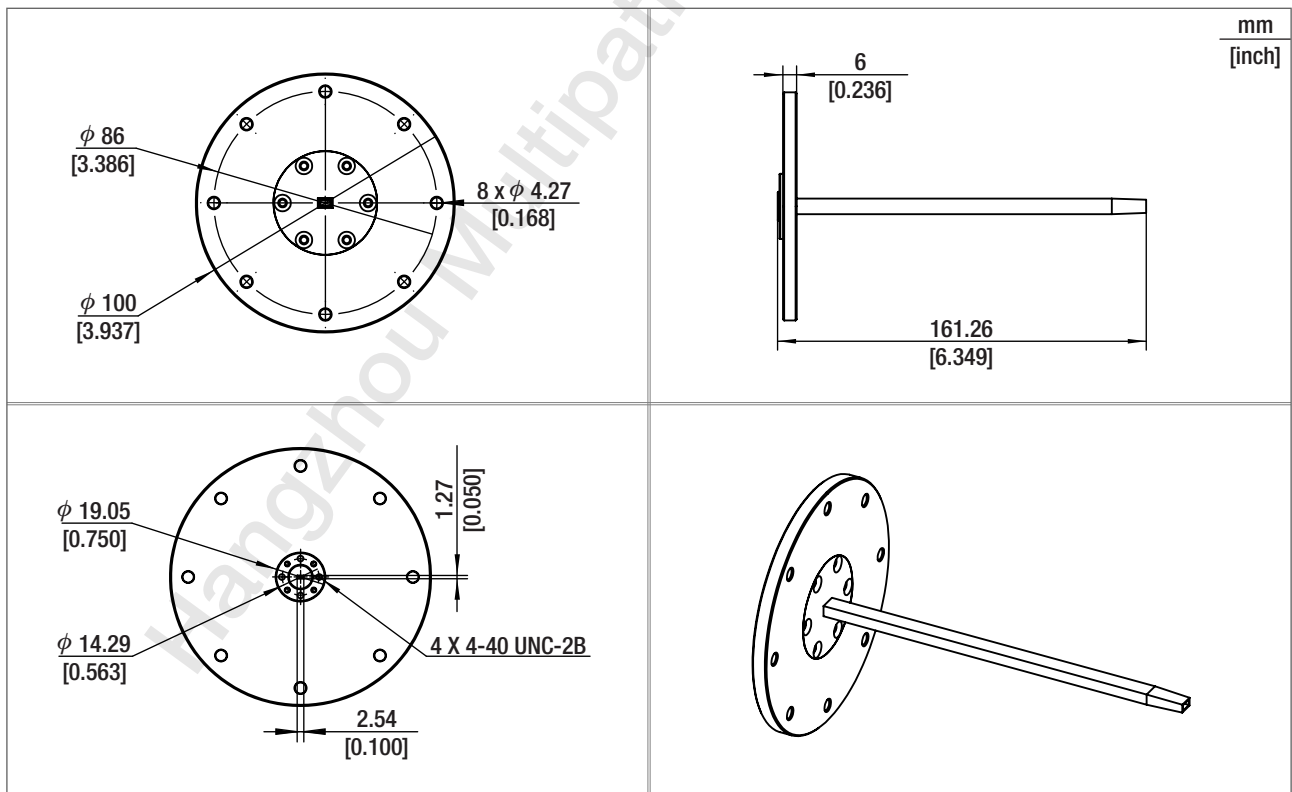
R\_detector explosive body



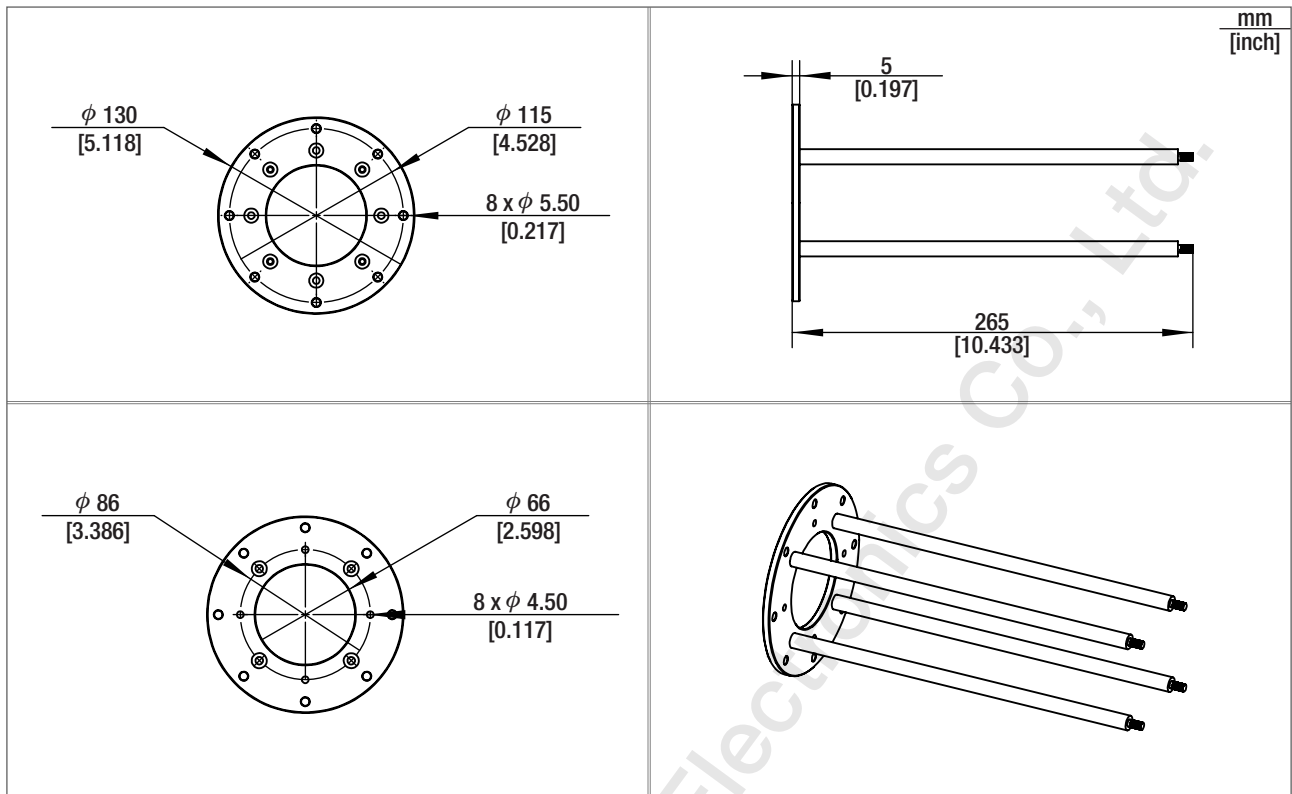
• Side view of the mounting system



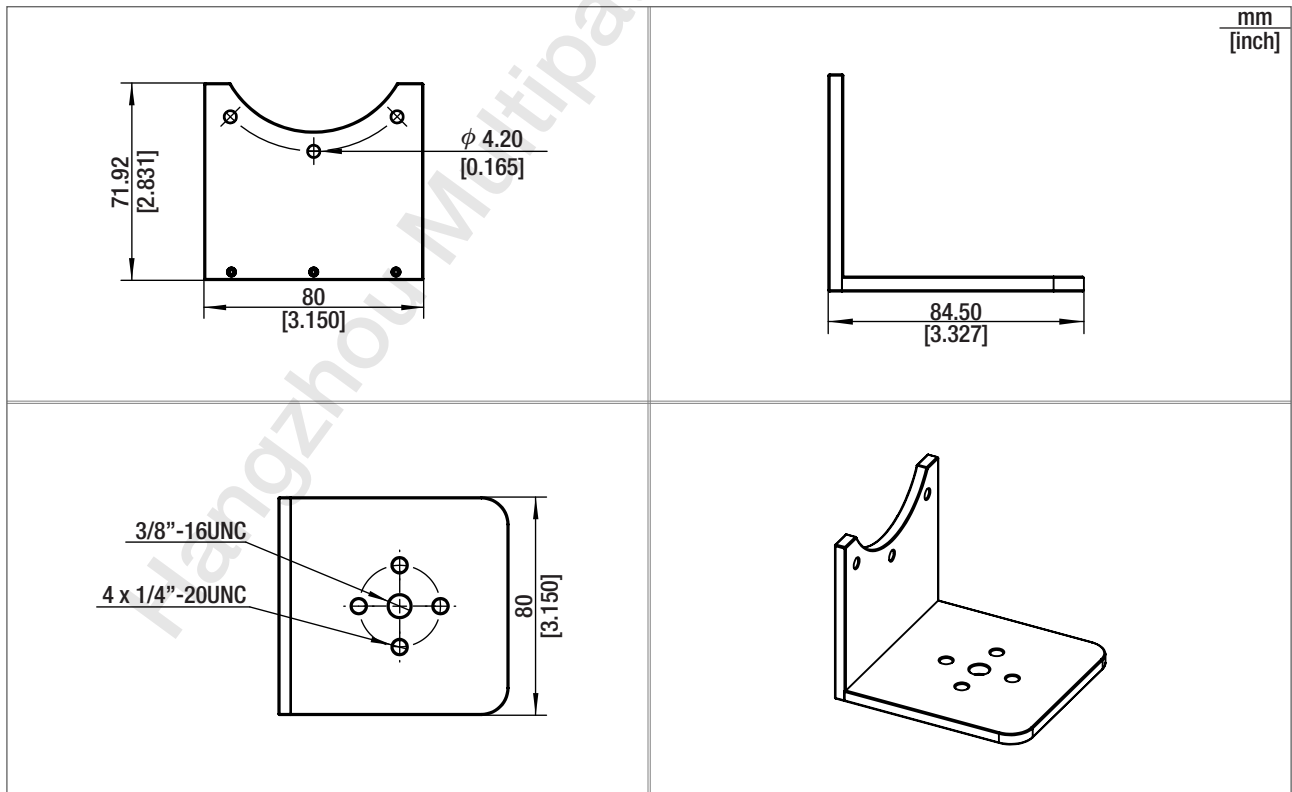
• Dimensional drawing: detectors, WP-WR10



• Dimensional drawing: round mounting bracket (Optional)

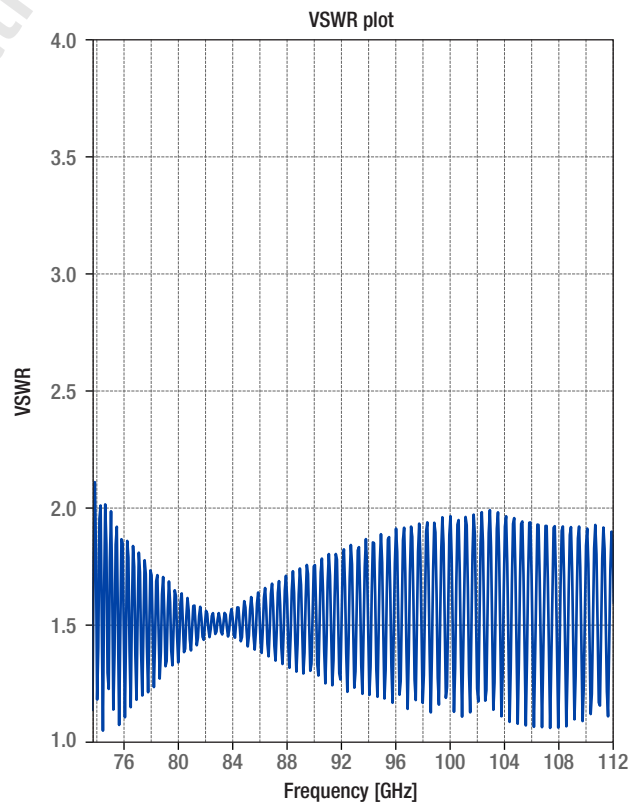
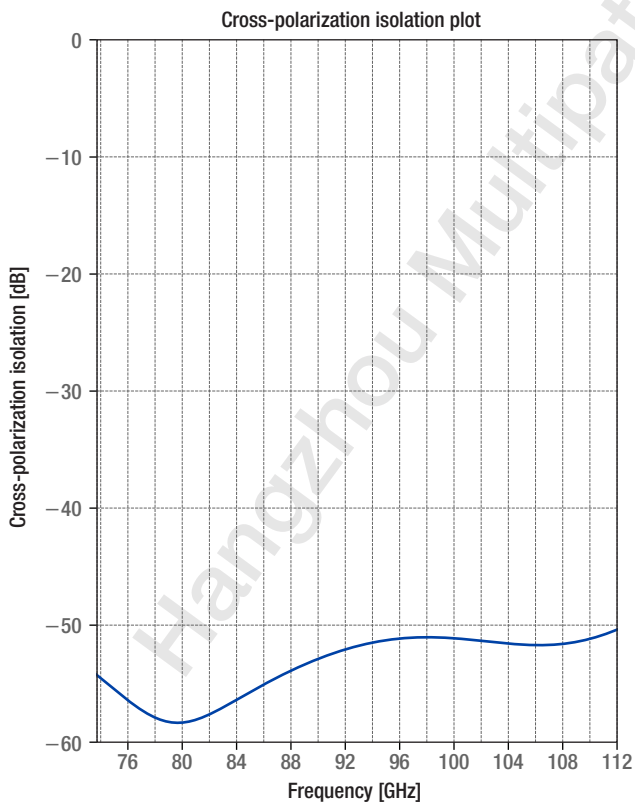
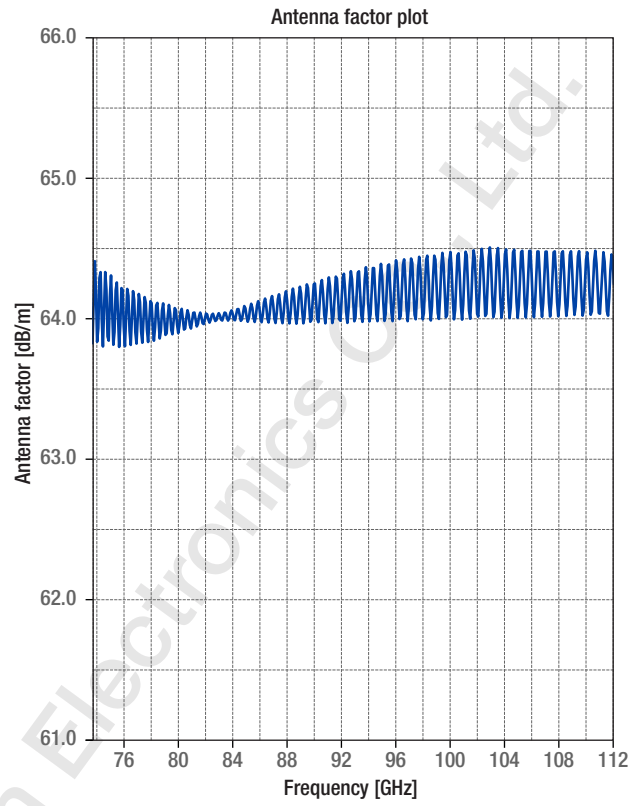
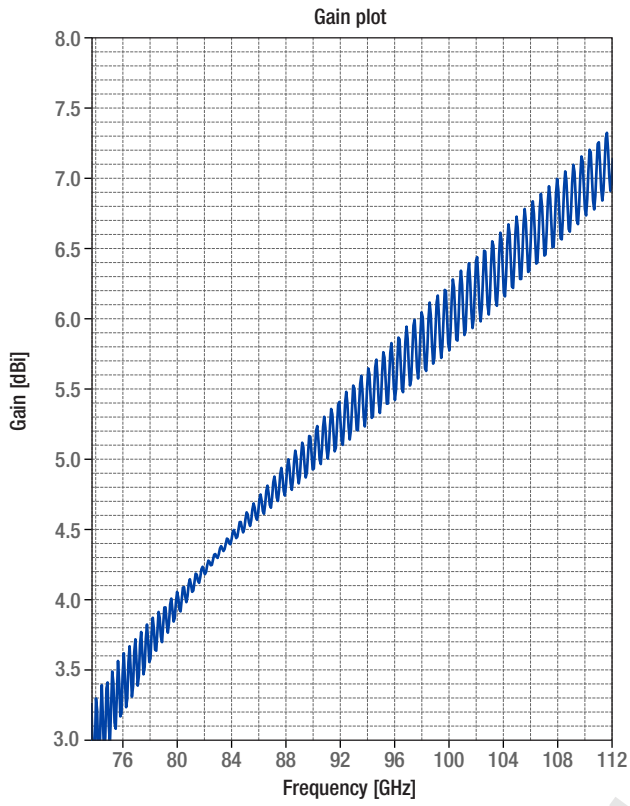


• Dimensional drawing: L type mounting bracket (Optional)



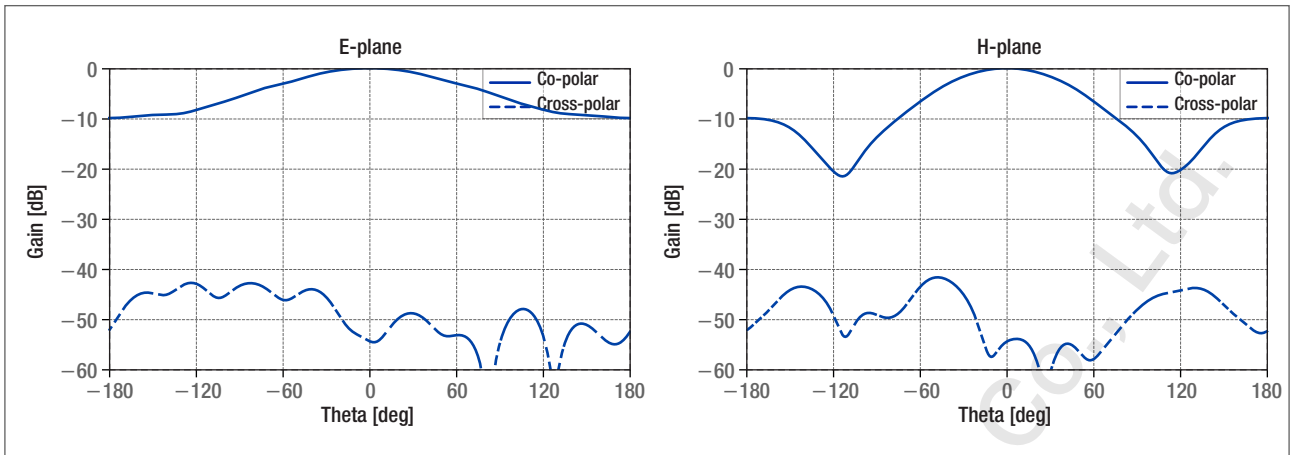
## Electrical characteristics

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

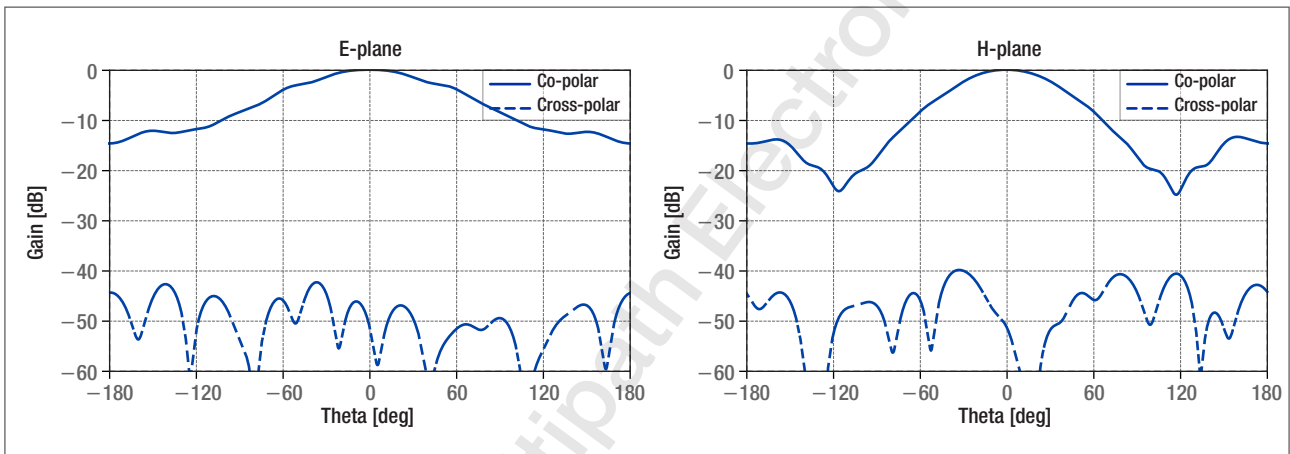


## • Radiation patterns

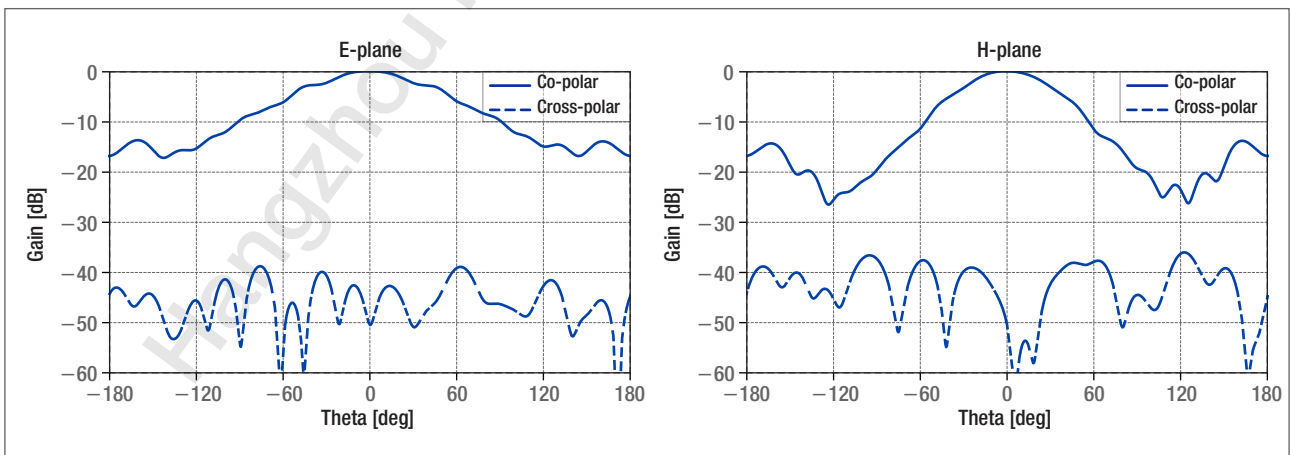
Patterns @ 70 GHz



Patterns @ 95 GHz



Patterns @ 115 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
74	3.39	64.19	-57.25	1.81
76	3.74	64.07	-58.15	1.63
78	4.09	63.94	-58.17	1.40
80	4.25	64.00	-57.44	1.49
82	4.40	64.07	-56.37	1.57
84	4.69	63.99	-55.24	1.39
86	4.73	64.15	-54.20	1.64
88	4.89	64.19	-53.27	1.67
90	5.24	64.04	-52.48	1.39
92	5.49	63.98	-51.84	1.21
94	5.61	64.04	-51.37	1.32
96	5.72	64.12	-51.08	1.45
98	5.86	64.16	-50.95	1.50
100	6.03	64.16	-50.98	1.49
102	6.25	64.11	-51.13	1.39
104	6.49	64.04	-51.33	1.22
106	6.68	64.01	-51.53	1.08
108	6.74	64.12	-51.63	1.35
110	6.68	64.34	-51.55	1.70
112	6.68	64.49	-51.23	1.92

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
70	117.83°	80.65°
95	98.94°	67.26°
115	89.08°	57.73°



Multipath Electronics

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