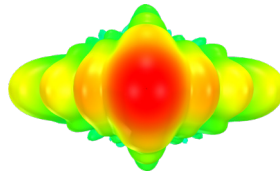


Standard Gain Horn Antennas

49.8 - 75.8 GHz, 20 dBi



Radiation pattern



QR code



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

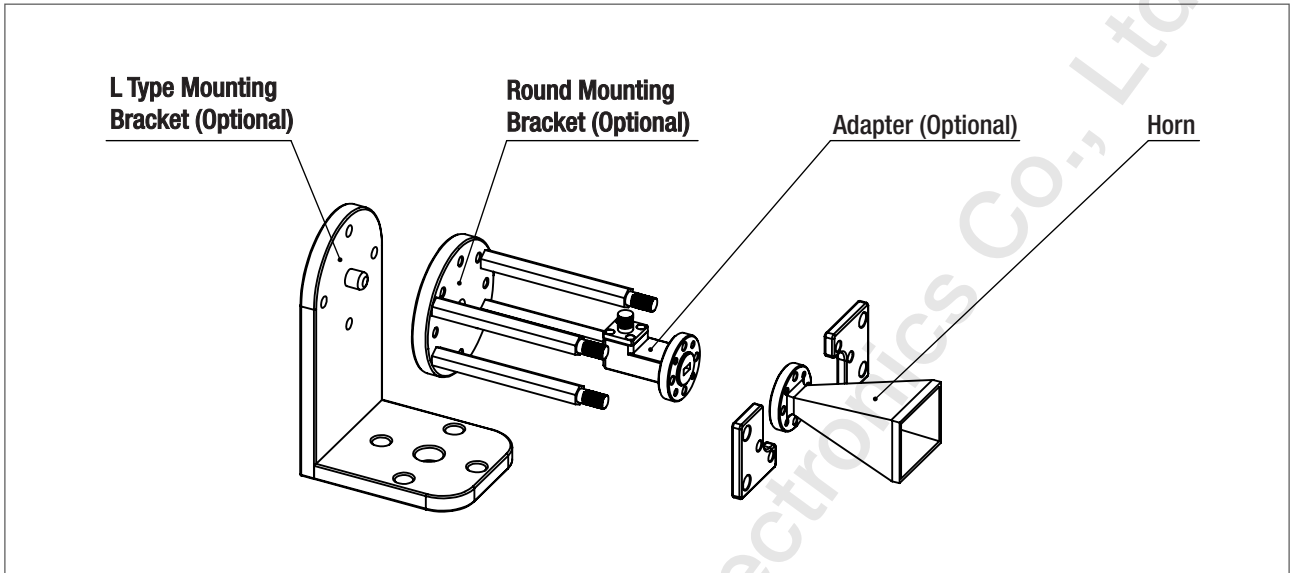
⚙️ Product specifications

Part number	HA-WR15-20	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	49.8 – 75.8	3dB beamwidth [deg]	E-plane: 15 Typ. H-plane: 15 Typ.
Waveguide band	WR15	Cross-polarization isolation [dB]	50 Typ.
Dimensions (H x W x L) [mm; inch]	19.05 x 19.05 x 67.23; 0.75 x 0.75 x 2.65	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.06; 0.132	Impedance [Ohms]	50
Material	Cu (Gold plated)	RF connector	1.0-Female

Outline dimensions

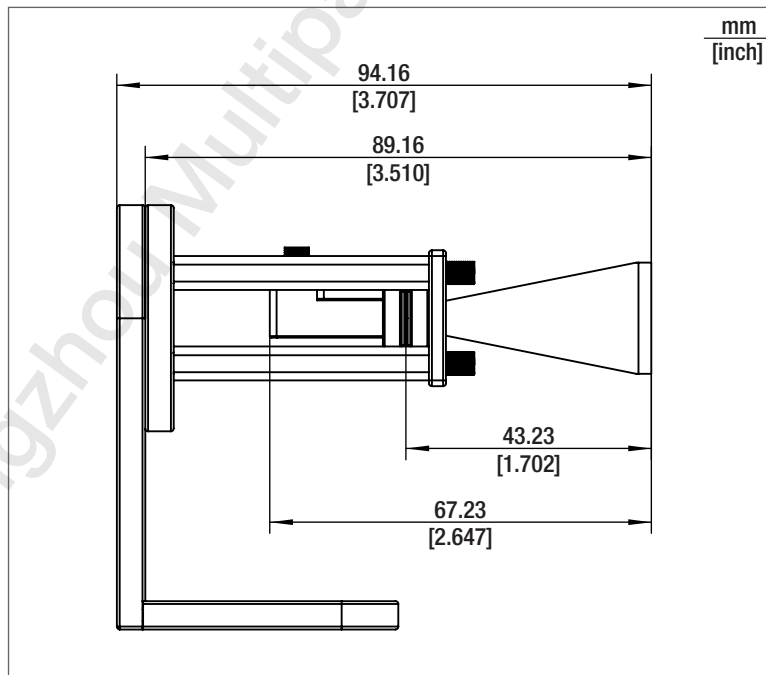
• Assembly dimensional drawing

Multipath Electronics provides complete standard gain horn 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.

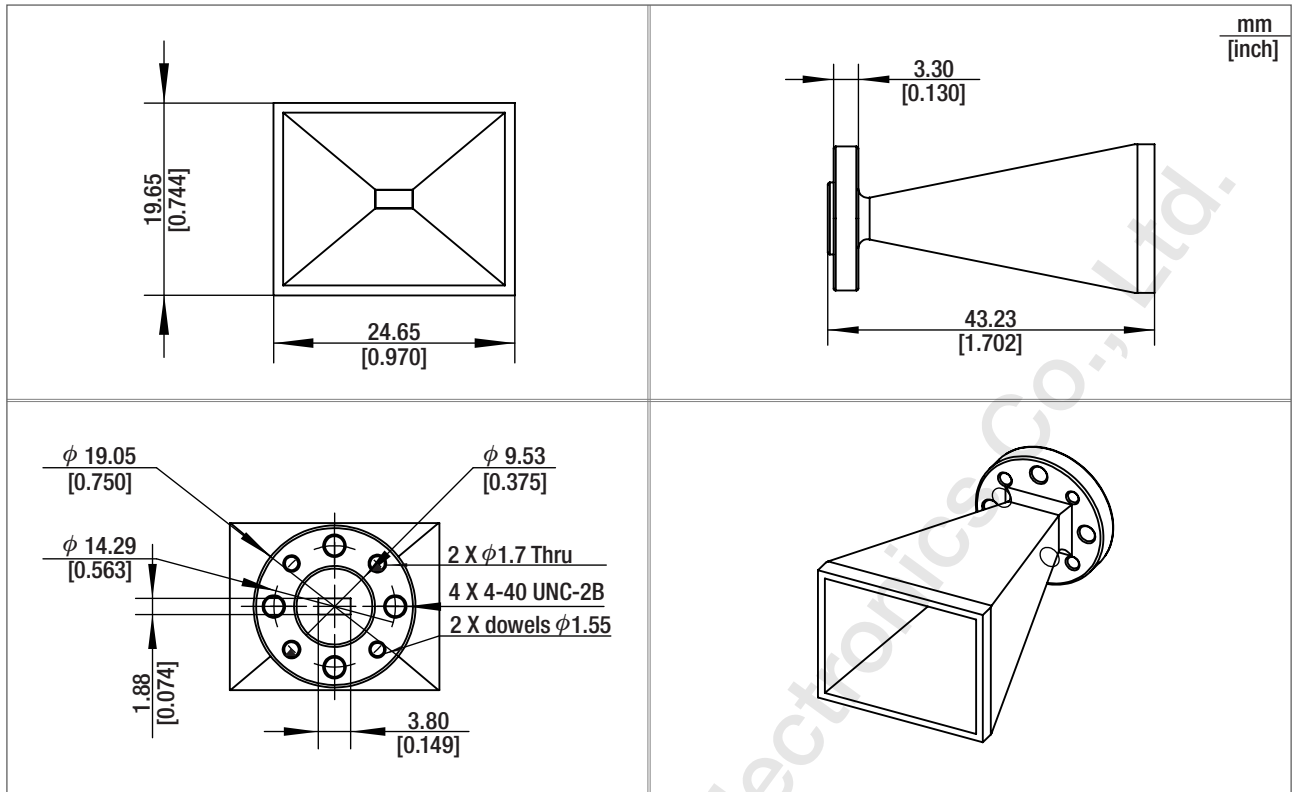


Side view of the mounting system.

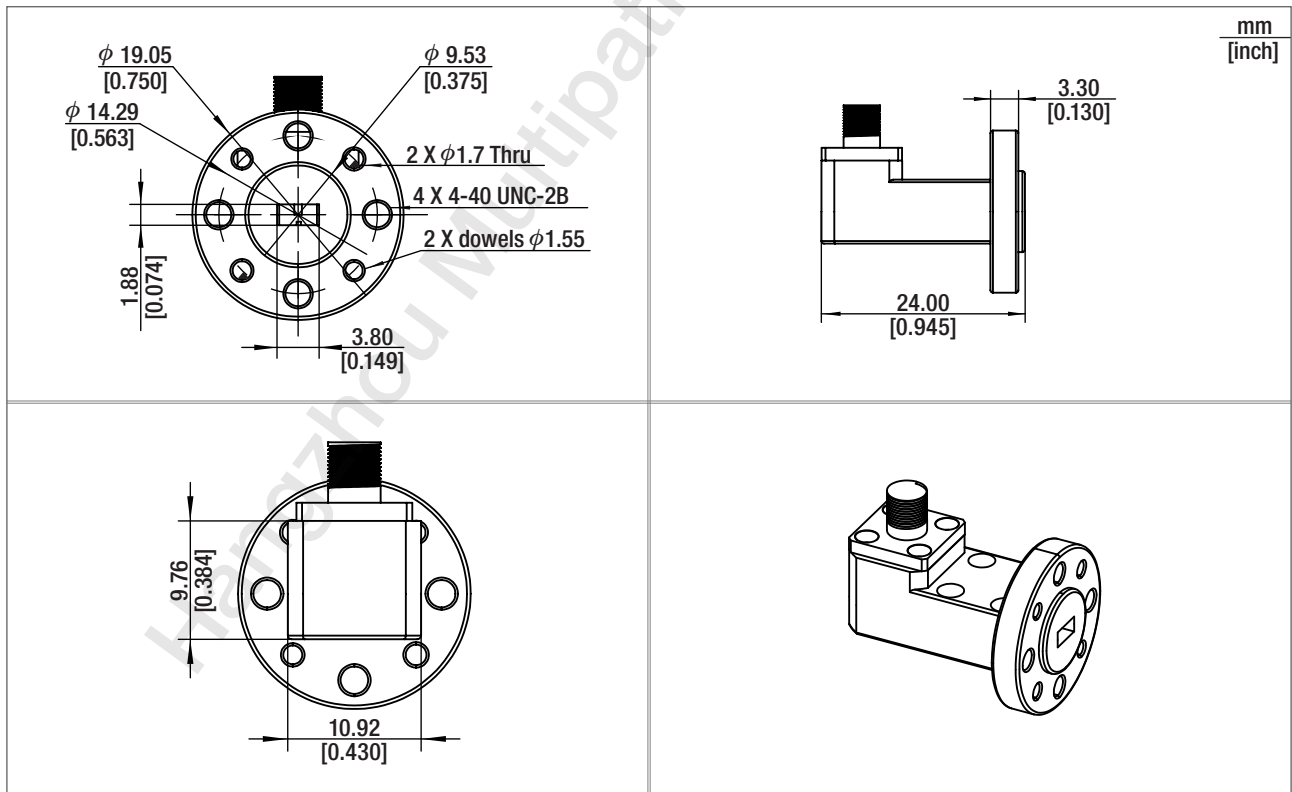
Detailed dimensions of the components will be given in subsequent diagrams.



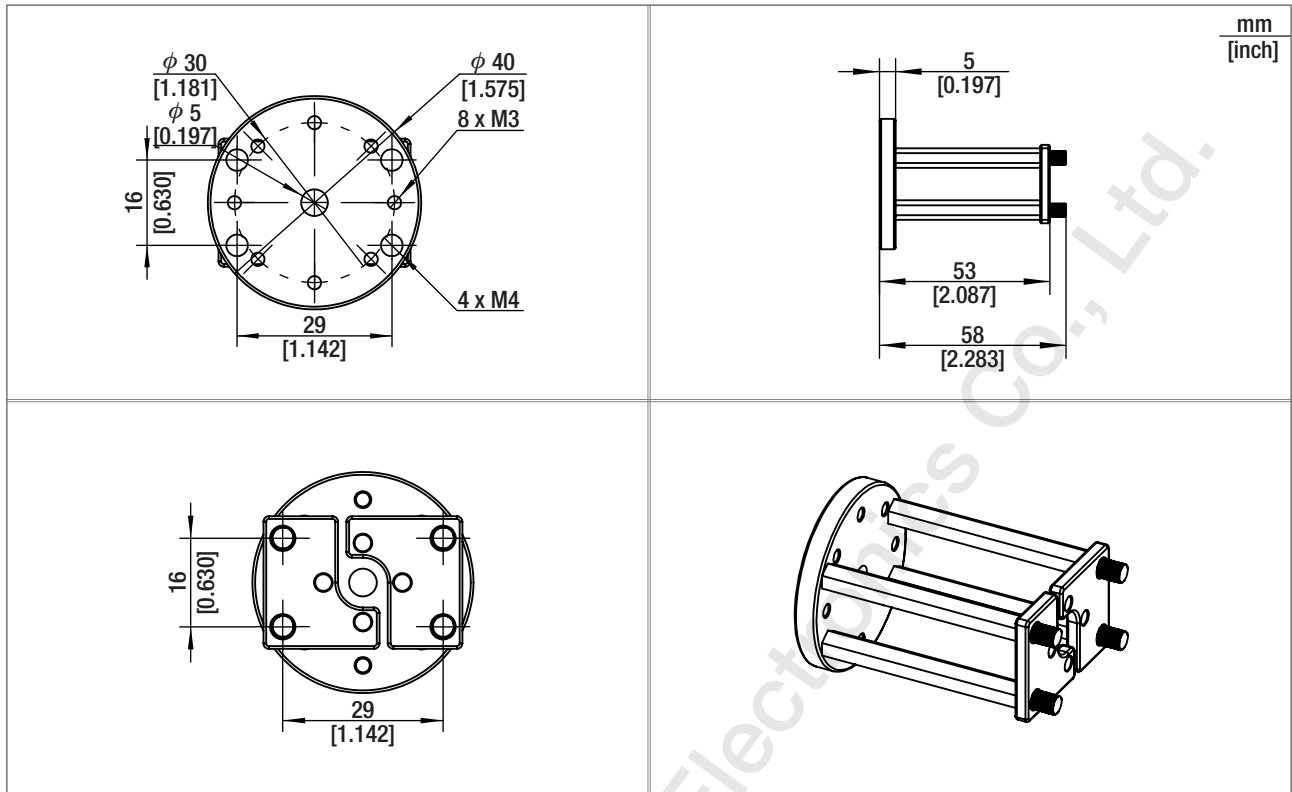
• Dimensional drawing: horn, HA-WR15-20



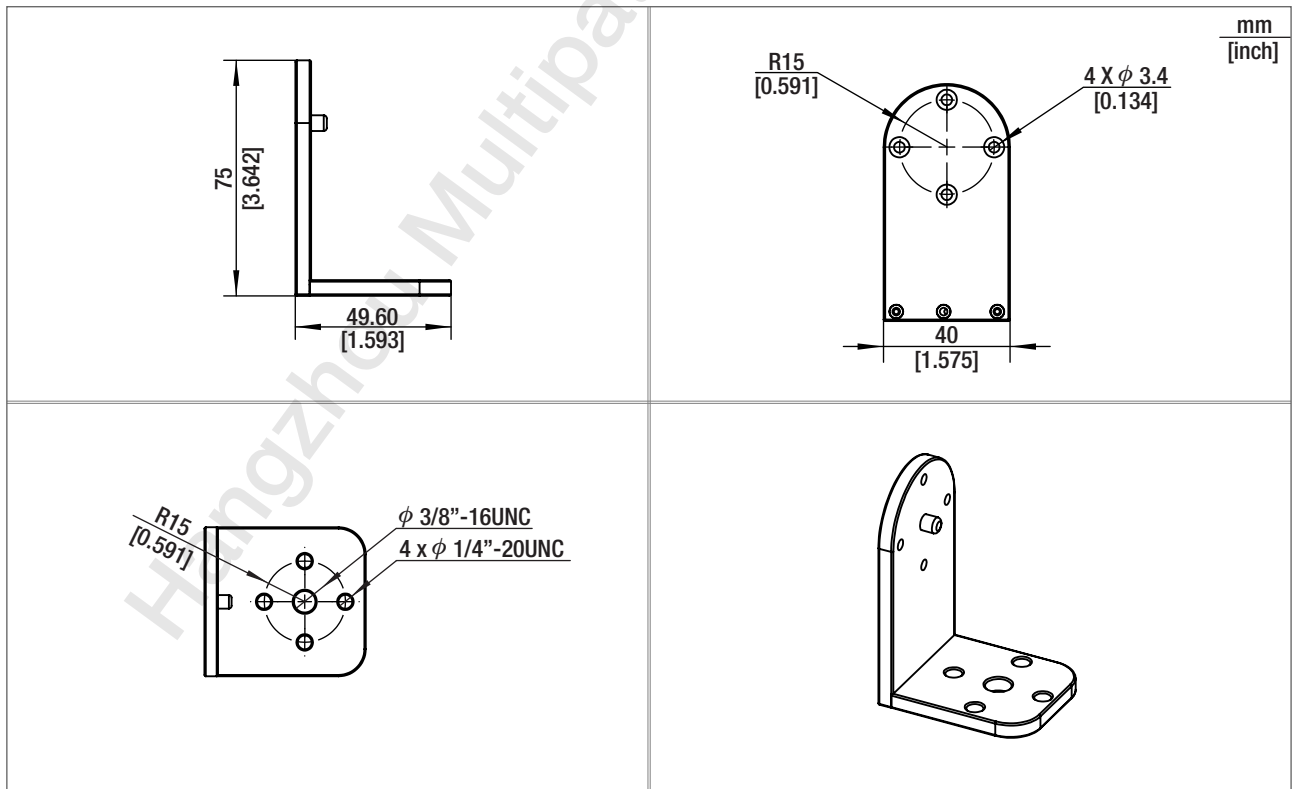
• Dimensional drawing: adapter, WR15-1.0-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

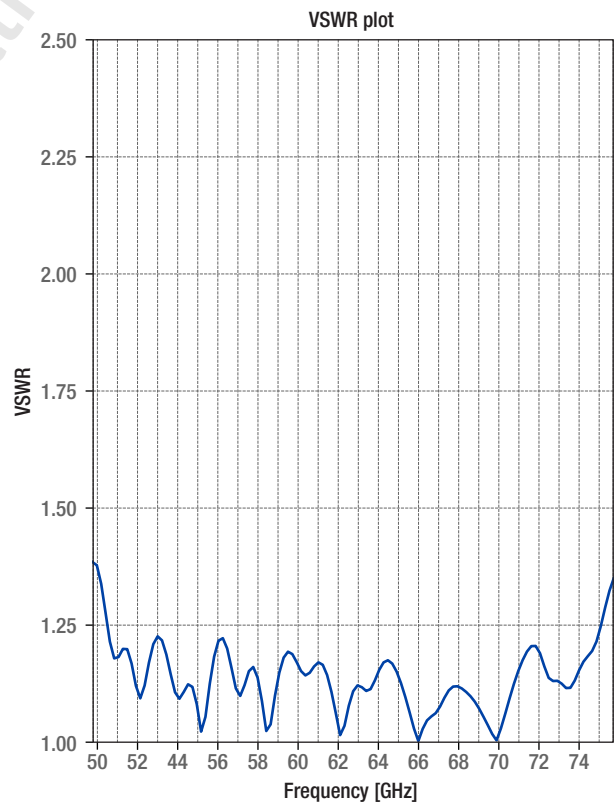
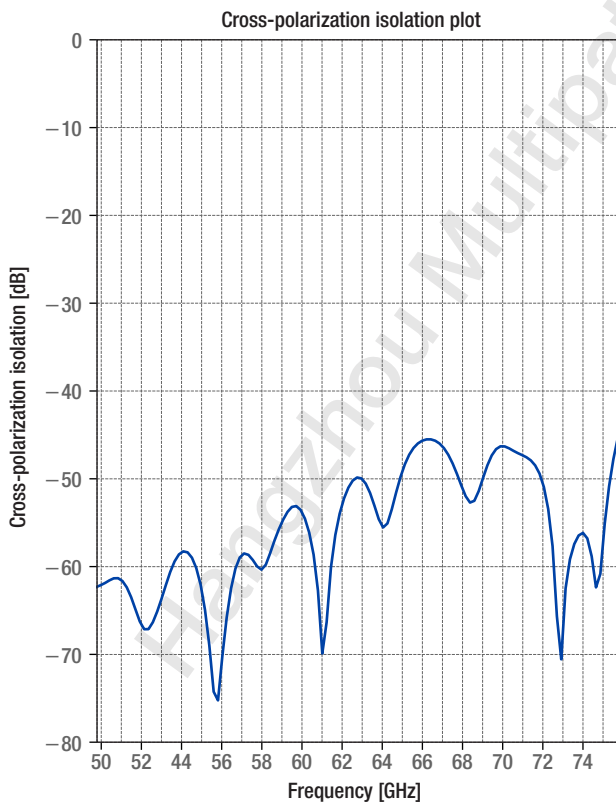
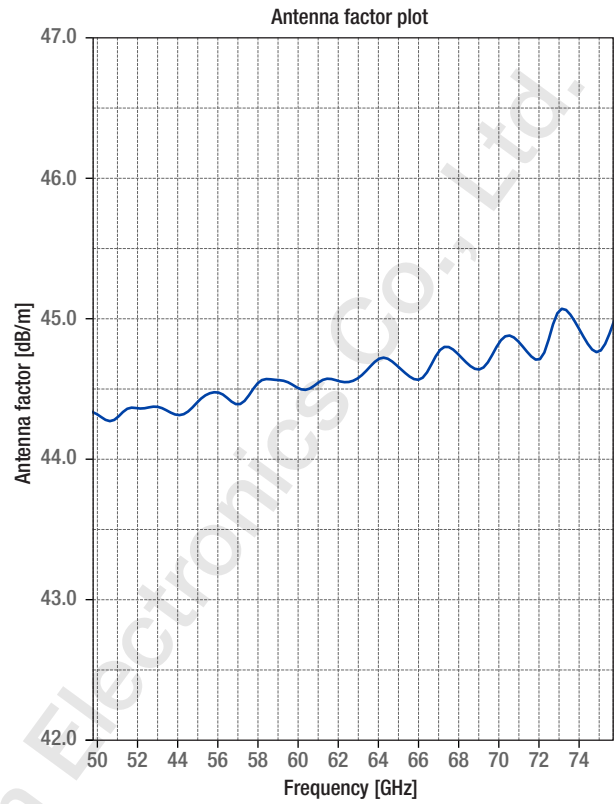
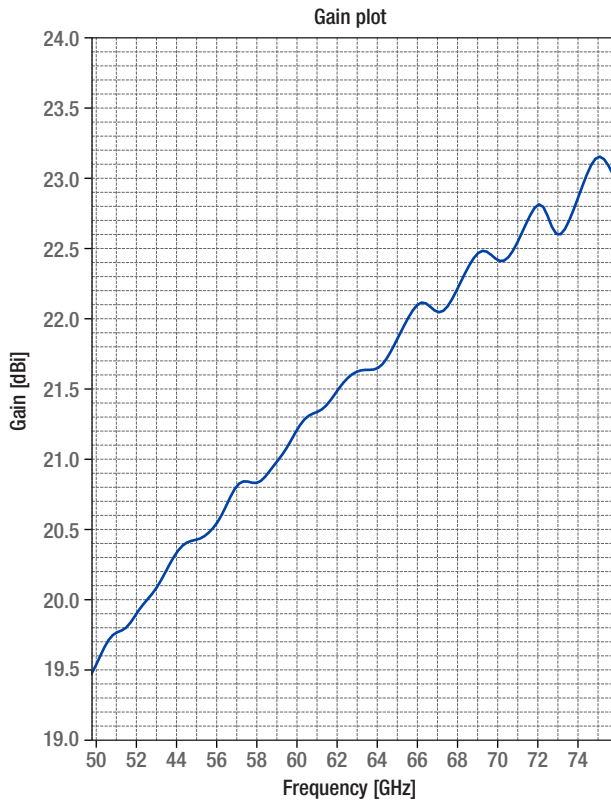


• Dimensional drawing: L type mounting bracket (Optional)



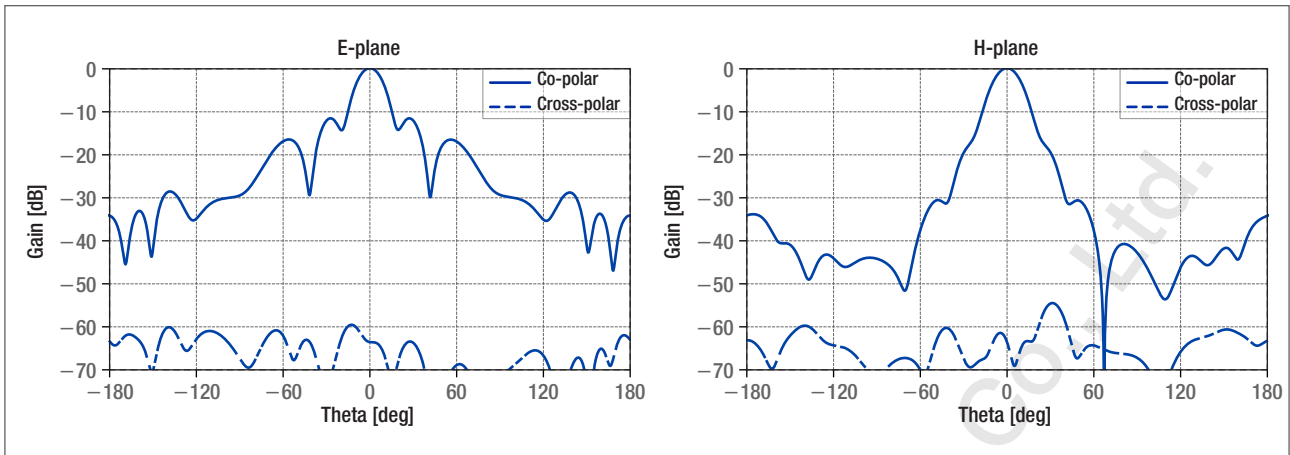
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

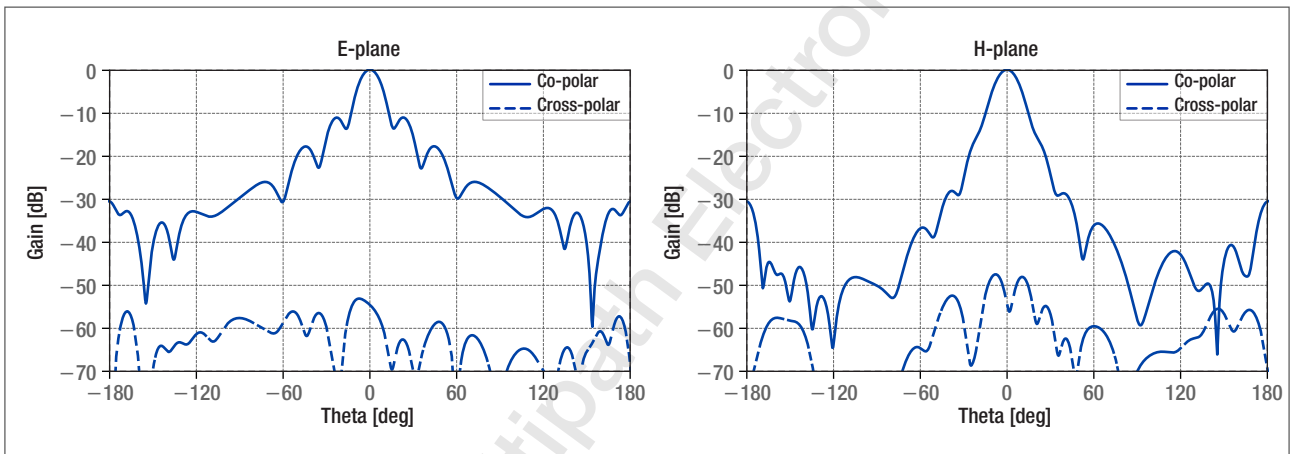


• Radiation patterns

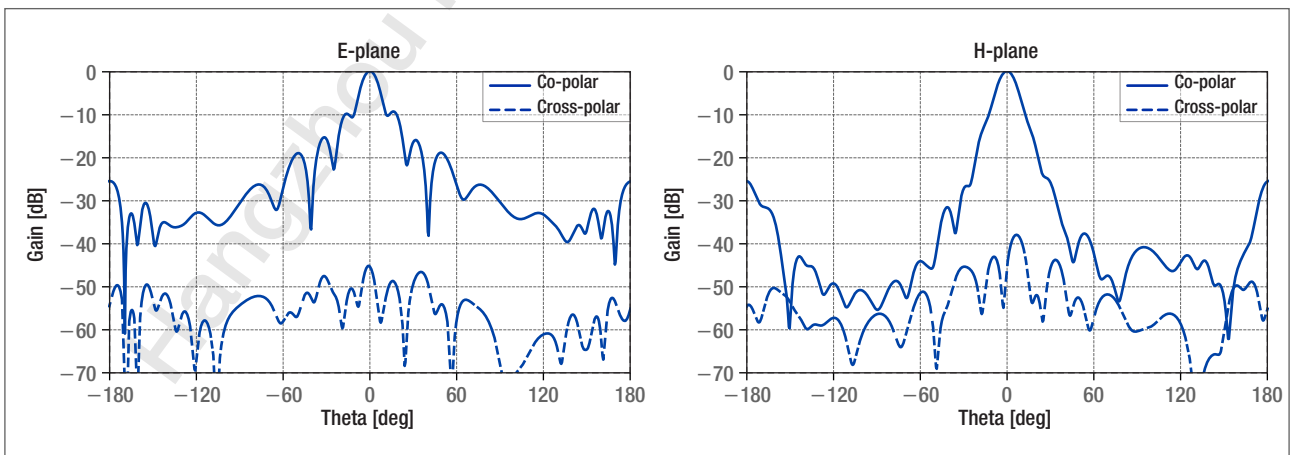
Patterns @ 50.0 GHz



Patterns @ 60.0 GHz



Patterns @ 78.0 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
50	19.80	44.37	-63.35	1.20
51	19.97	44.37	-67.01	1.12
52	20.14	44.37	-61.97	1.21
53	20.36	44.32	-58.12	1.09
54	20.43	44.41	-61.95	1.08
55	20.51	44.48	-75.14	1.18
56	20.74	44.42	-60.11	1.16
57	20.85	44.46	-59.10	1.15
58	20.88	44.58	-58.33	1.02
59	21.04	44.57	-53.61	1.18
60	21.25	44.50	-54.38	1.15
61	21.34	44.55	-69.79	1.17
62	21.47	44.57	-53.81	1.06
63	21.61	44.57	-49.68	1.11
64	21.64	44.67	-52.90	1.11
65	21.73	44.72	-53.31	1.17
66	21.96	44.62	-47.09	1.09
67	22.12	44.59	-45.33	1.02
68	22.05	44.79	-46.33	1.07
69	22.21	44.76	-50.60	1.12
70	22.44	44.65	-51.24	1.08
71	22.47	44.75	-46.45	1.01
72	22.45	44.89	-46.64	1.09
73	22.68	44.77	-47.73	1.19
74	22.81	44.77	-53.29	1.16
75	22.61	45.08	-62.35	1.12

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
50	17.36°	18.70°
60	14.77°	15.94°
78	11.50°	12.63°



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