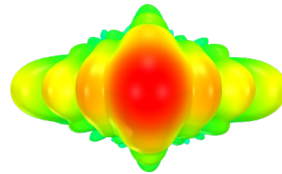




Standard Gain Horn Antennas

32.9 - 50.1 GHz, 20 dBi

Radiation pattern



QR code



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

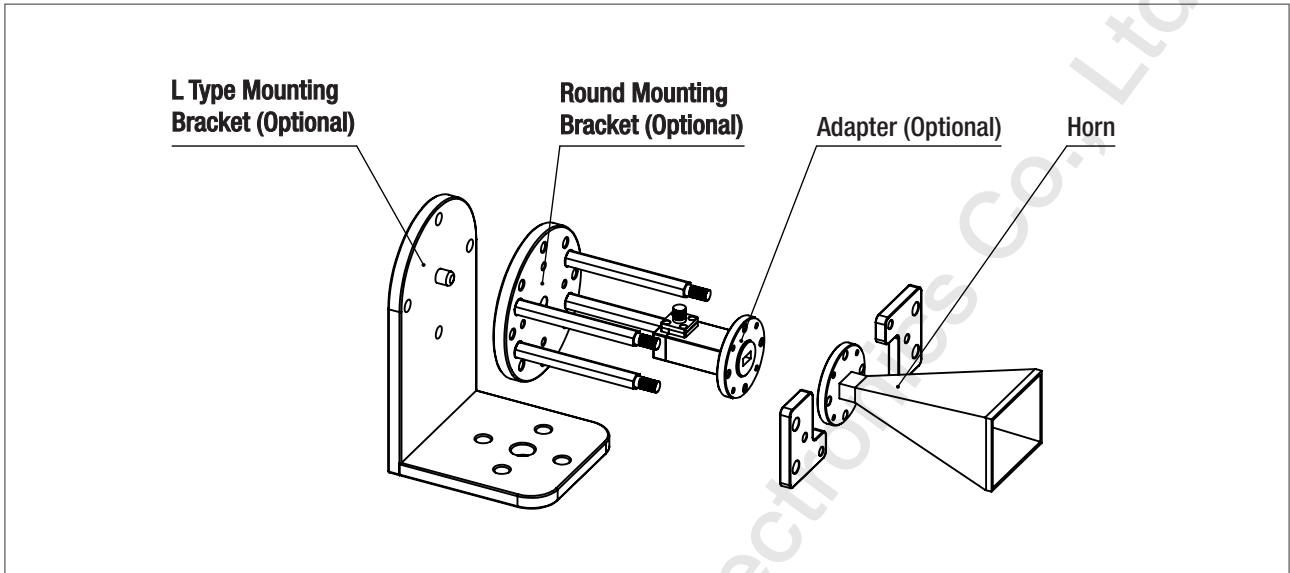
⚙️ Product specifications

Part number	HA-WR22-20	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	32.9 – 50.1	3dB beamwidth [deg]	E-plane: 15 Typ. H-plane: 15 Typ.
Waveguide band	WR22	Cross-polarization isolation [dB]	30 Typ.
Dimensions (H x W x L) [mm; inch]	28.6 x 28.6 x 99.9; 1.13 x 1.13 x 3.93	VSWR	1.20 Typ.
Weight (approx.) [kg; lb]	0.05; 0.110	Impedance [Ohms]	50
Material	Cu (Gold plated)	RF connector	2.4-Female

Outline dimensions

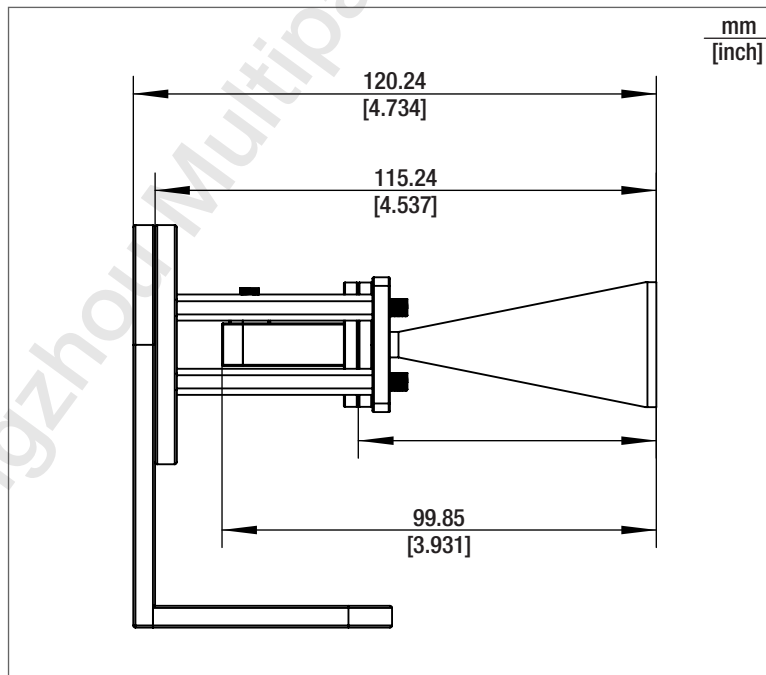
• Assembly dimensional drawing

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.

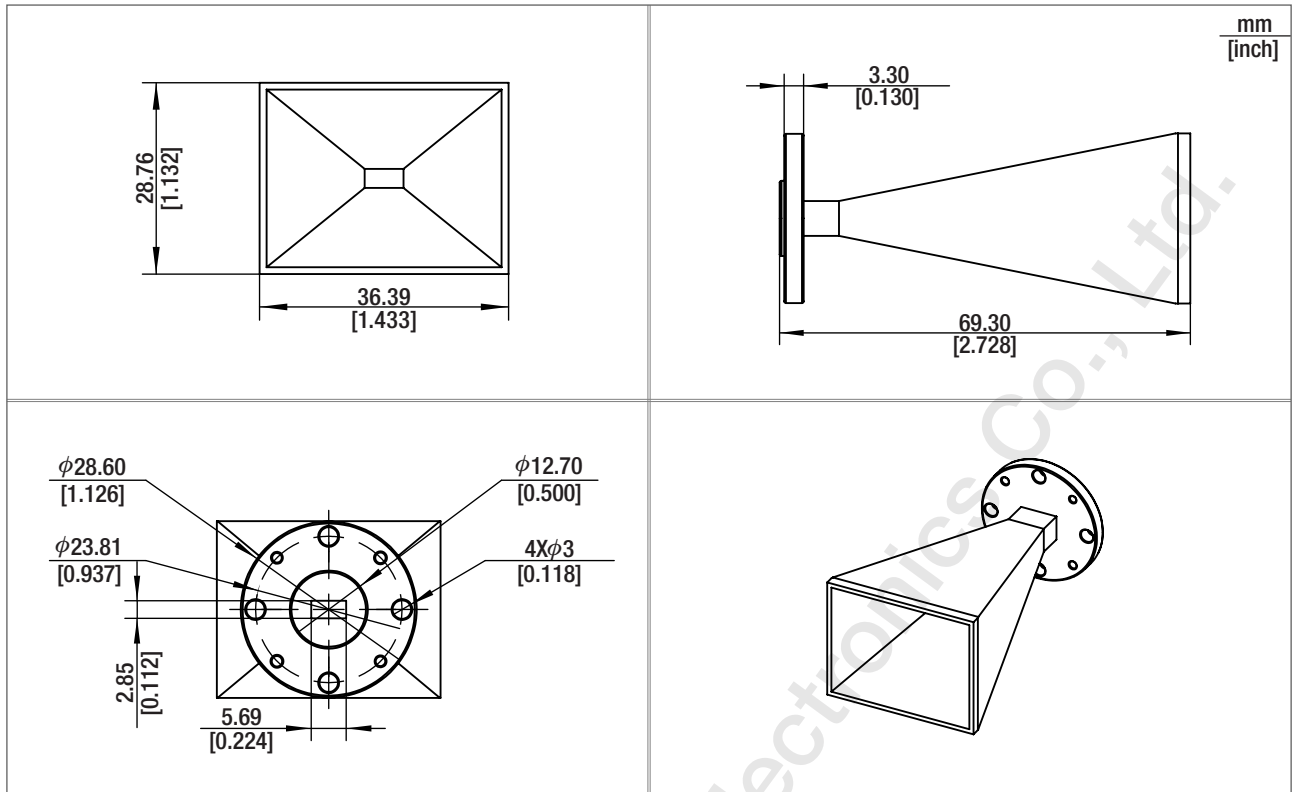


Side view of the mounting system.

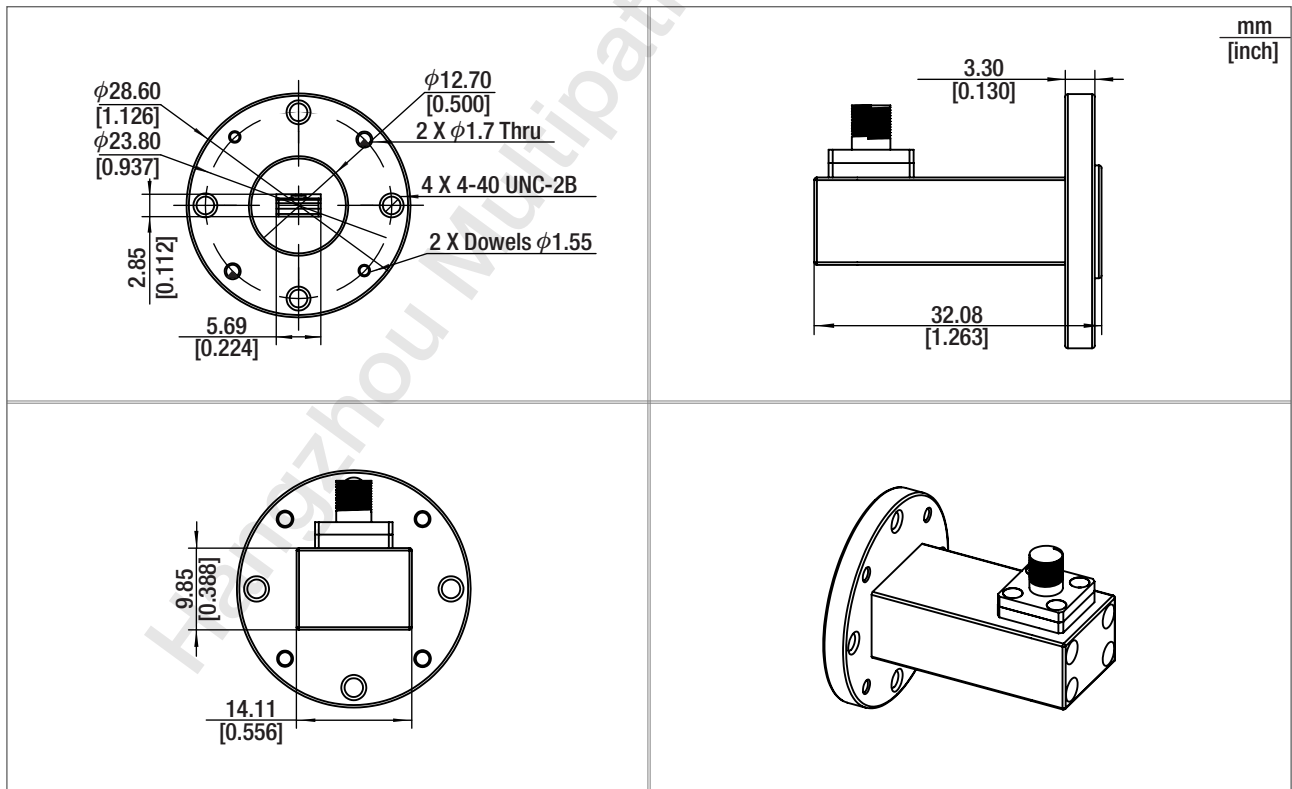
Detailed dimensions of the components will be given in subsequent diagrams.



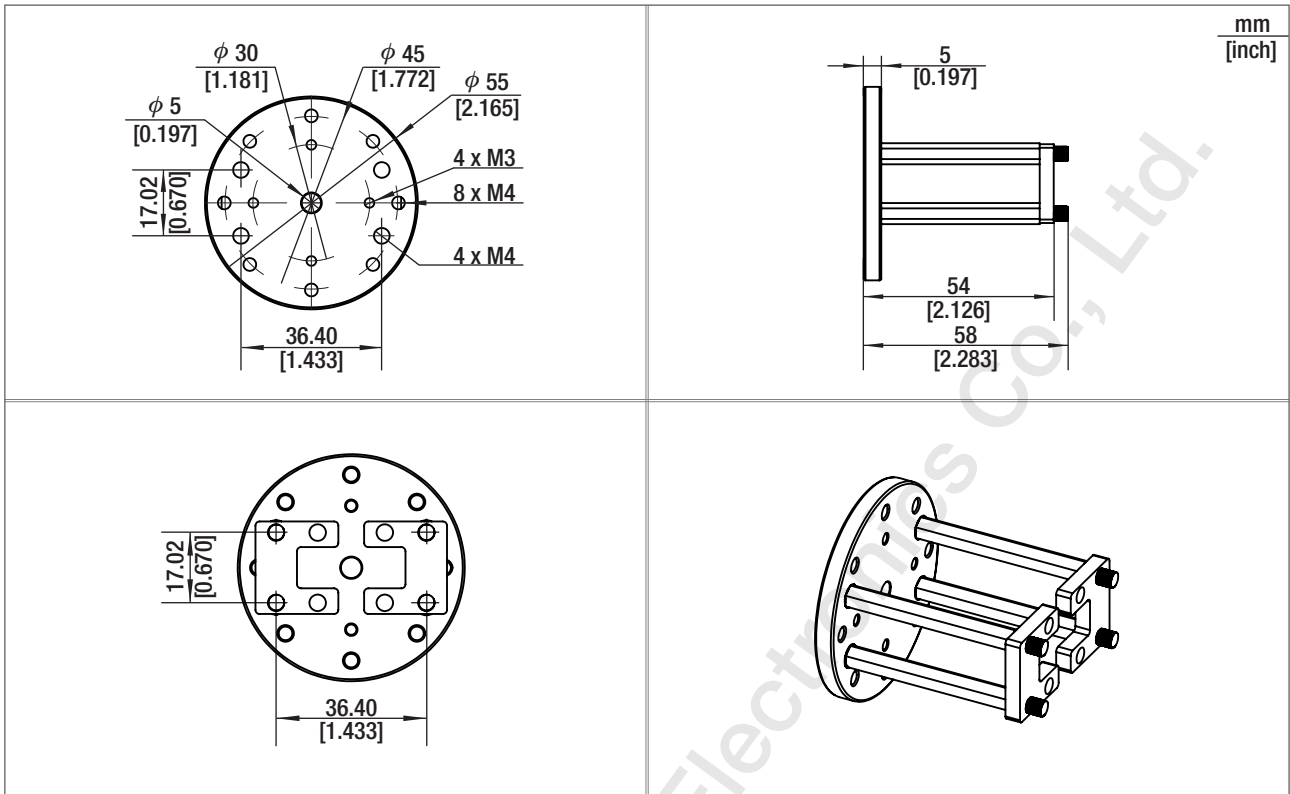
• Dimensional drawing: horn, HA-WR22-20



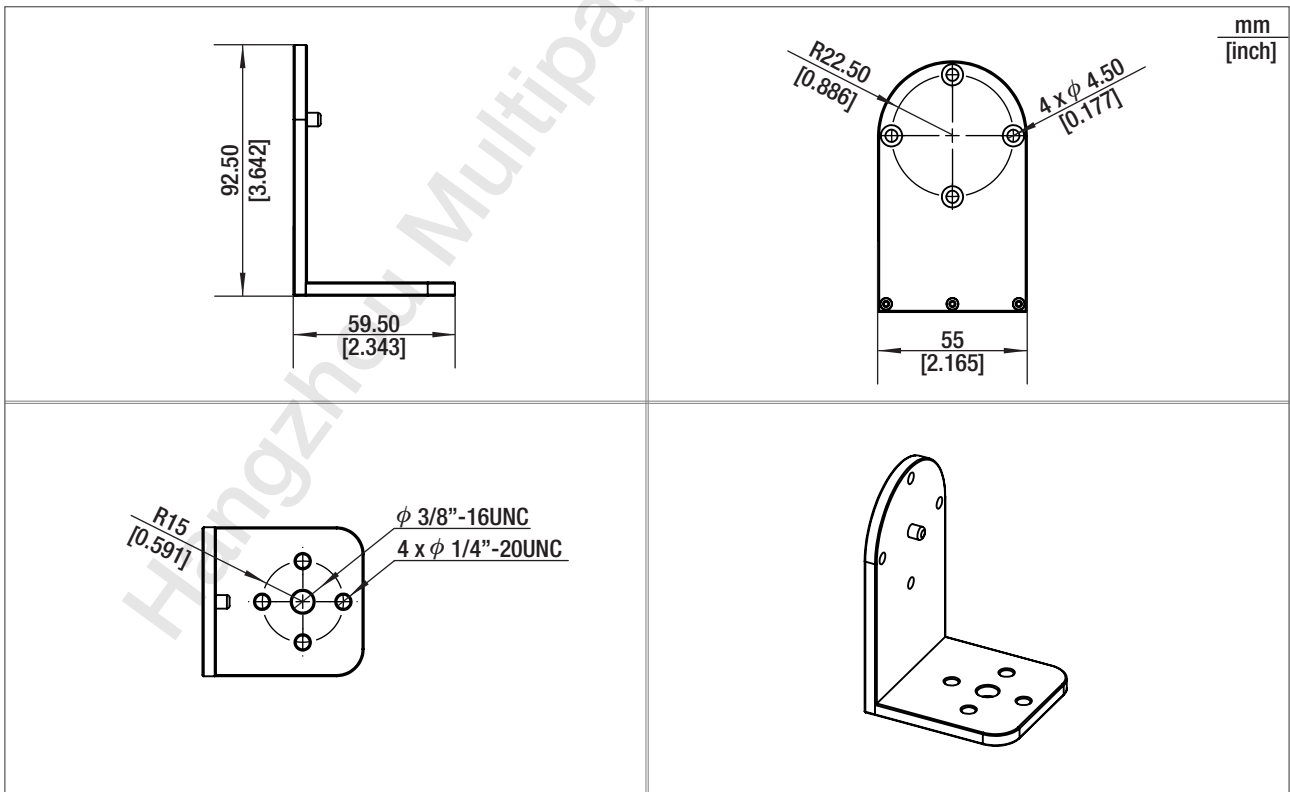
• Dimensional drawing: adapter, WR22-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

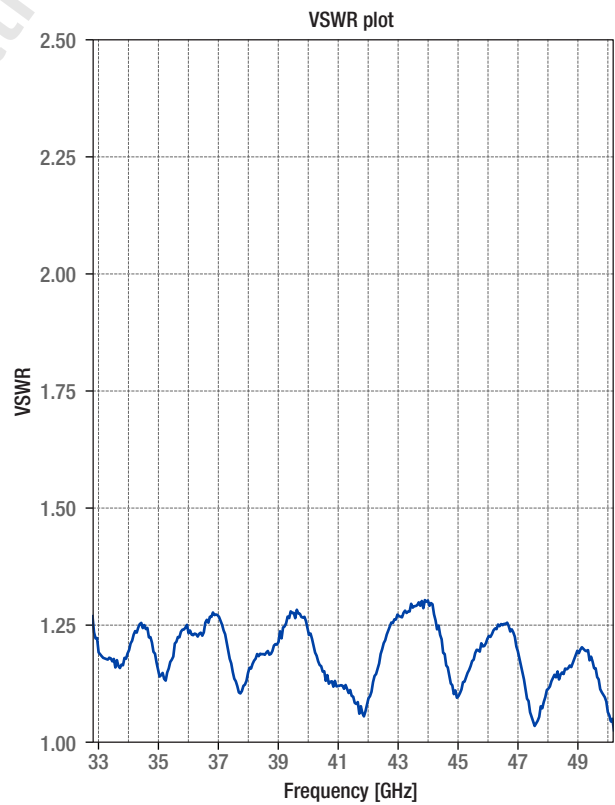
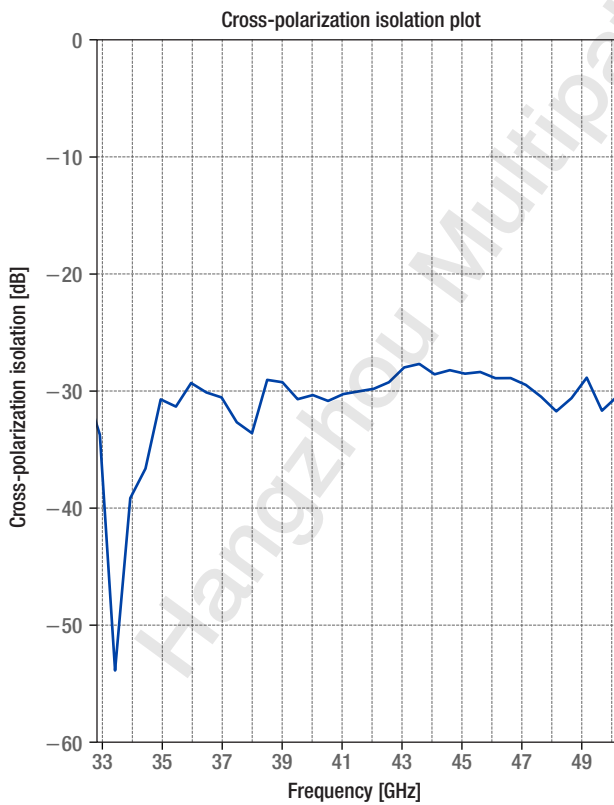
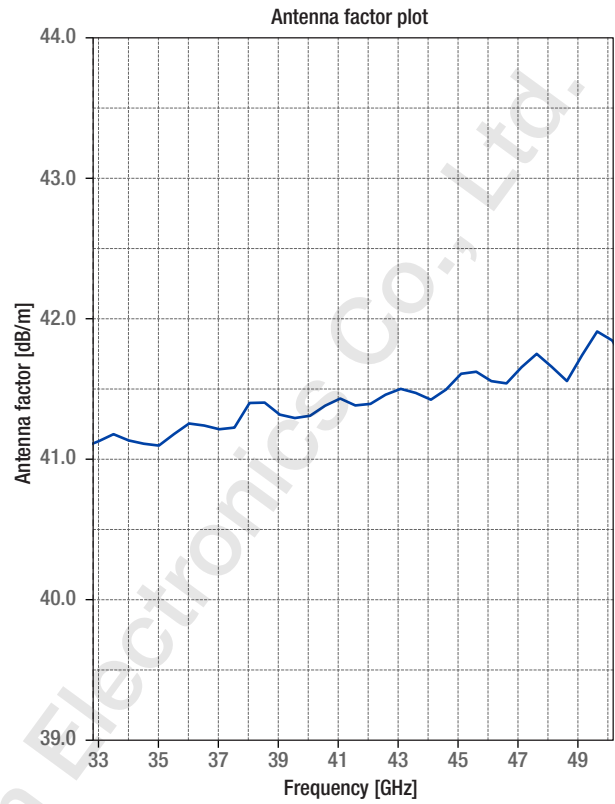
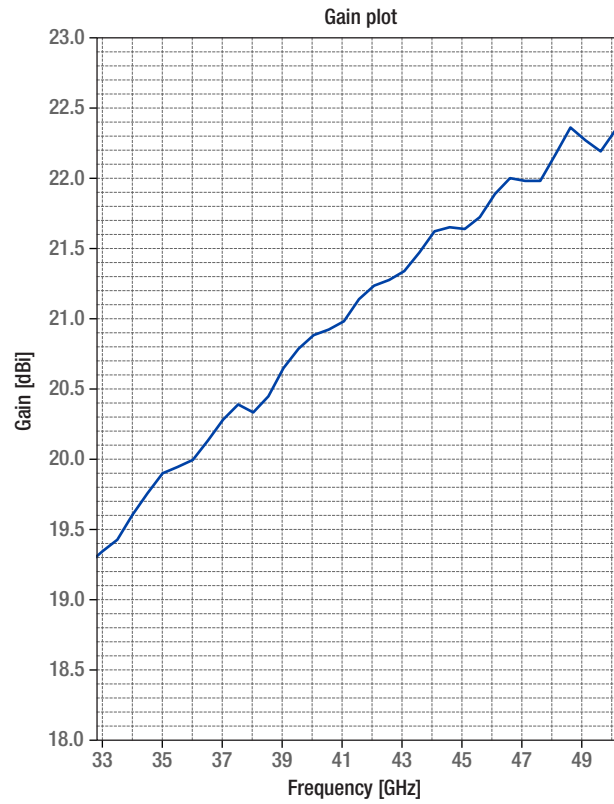


• Dimensional drawing: L type mounting bracket (Optional)



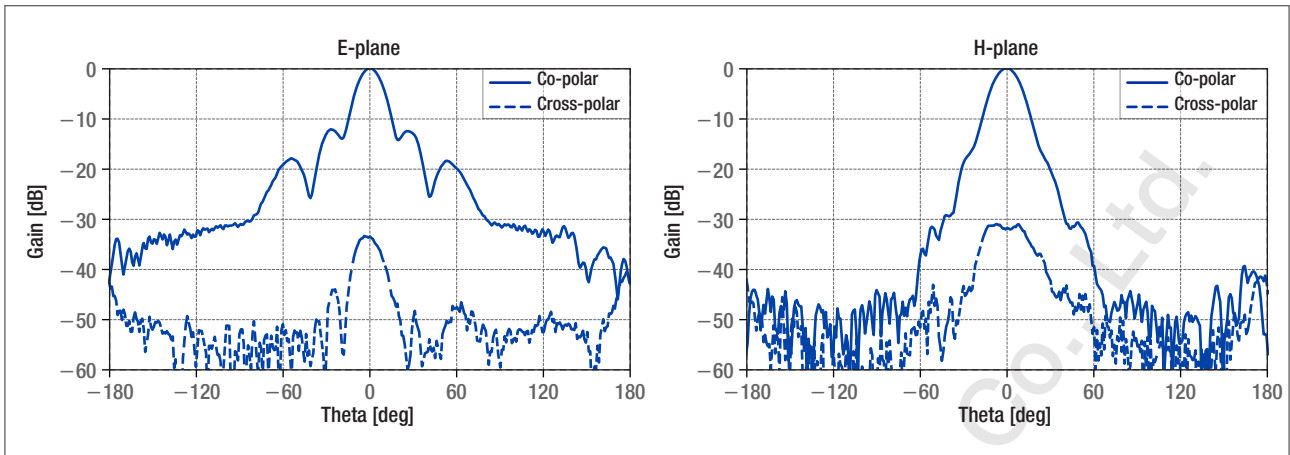
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

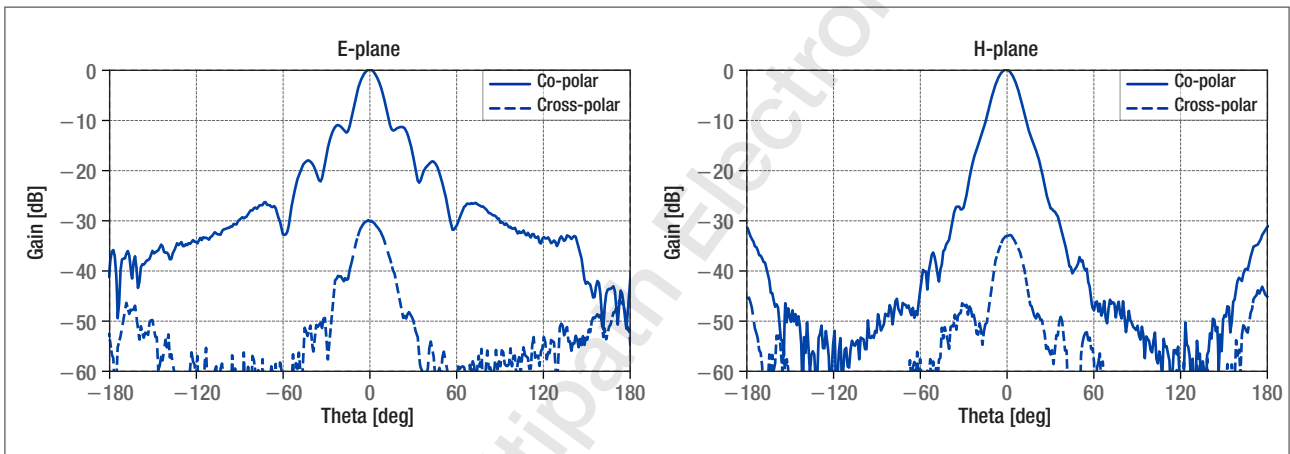


• Radiation patterns

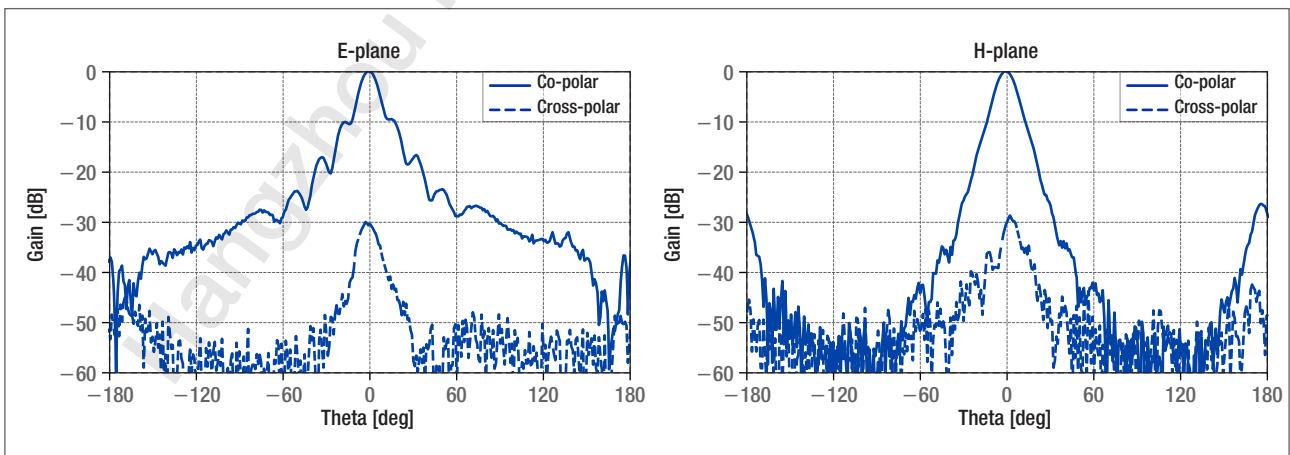
Patterns @ 33.0 GHz



Patterns @ 40.0 GHz



Patterns @ 50.0 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
33	19.40	41.16	-33.36	1.20
34	19.65	41.17	-38.58	1.16
35	19.94	41.13	-30.45	1.16
36	20.03	41.28	-29.11	1.23
37	20.31	41.25	-30.29	1.25
38	20.36	41.43	-33.23	1.13
39	20.67	41.35	-29.04	1.20
40	20.89	41.34	-30.10	1.21
41	20.99	41.46	-30.02	1.11
42	21.23	41.42	-29.58	1.09
43	21.34	41.52	-27.82	1.25
44	21.61	41.45	-28.39	1.28
45	21.63	41.63	-28.34	1.10
46	21.87	41.58	-28.71	1.21
47	21.96	41.67	-29.26	1.13
48	22.14	41.68	-31.43	1.12
49	22.24	41.76	-28.67	1.18
50	22.31	41.86	-30.21	1.02

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
33.0	16.51°	18.78°
40.0	14.61°	14.68°
50.0	12.22°	13.34°



Multipath Electronics

Contact

-  +86-571-56201039
-  sales@multipath.cn
-  <https://www.multipath-electron.com>
-  Technical specifications in this datasheet are subject to change without notice. Actual products may differ from the shown images.