

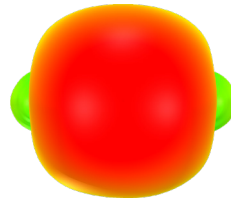


# Standard Gain Horn Antennas

32.9 - 50.1 GHz, 10 dBi



Radiation pattern



QR code



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

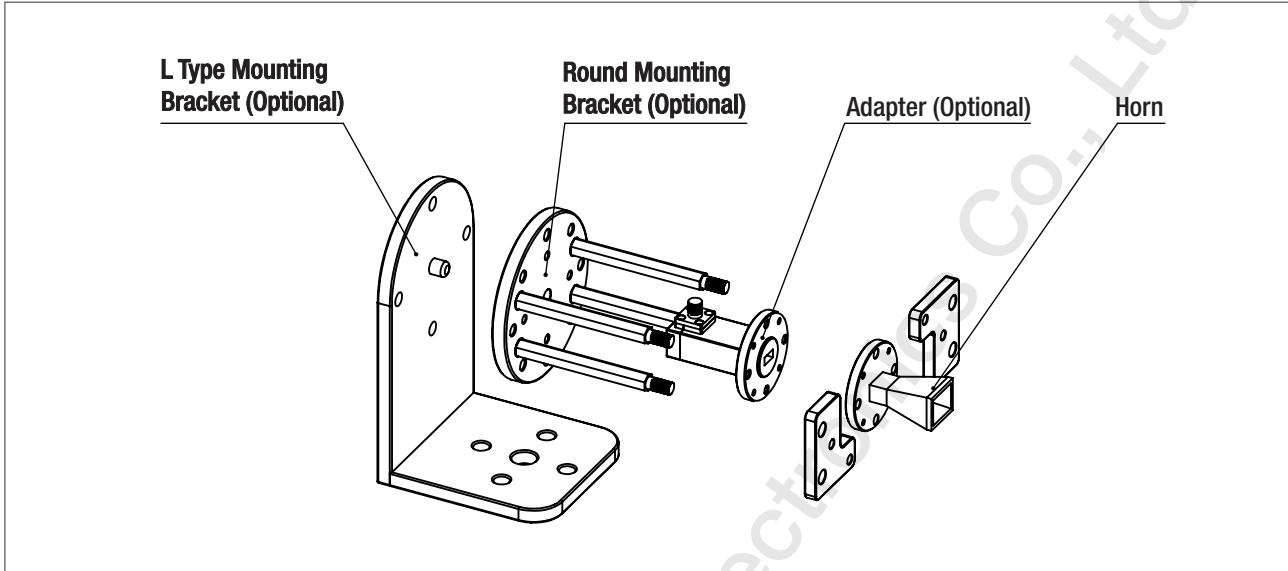
## ⚙️ Product specifications

Part number	HA-WR22-10	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	10 Typ.
Frequency range [GHz]	32.9 – 50.1	3dB beamwidth [deg]	E-plane: 45 Typ. H-plane: 45 Typ.
Waveguide band	WR22	Cross-polarization isolation [dB]	35 Typ.
Dimensions (H x W x L) [mm; inch]	28.6 x 28.6 x 57.7; 1.13 x 1.13 x 2.27	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.05; 0.110	Impedance [Ohms]	50
Material	Cu (Gold plated)	RF connector	2.4-Female

## Outline dimensions

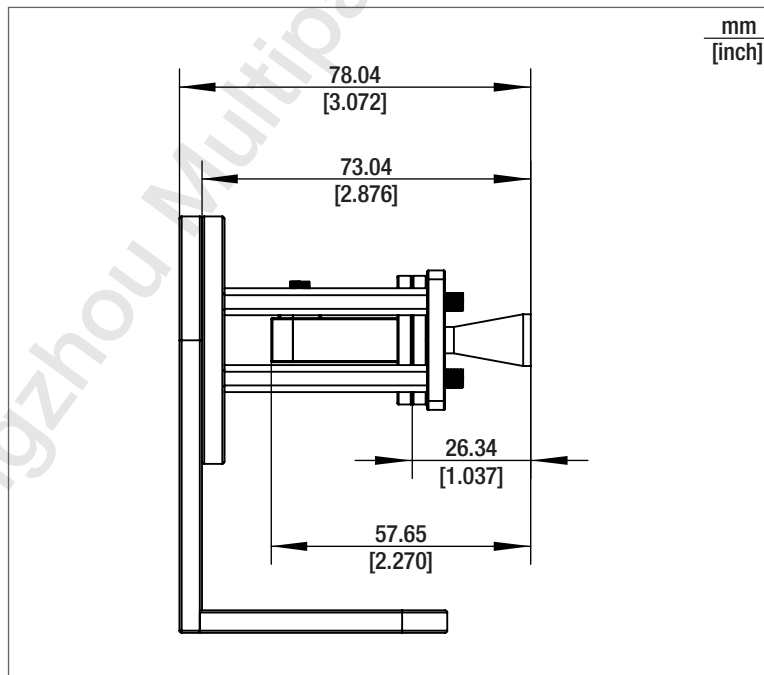
### • Assembly dimensional drawing

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.

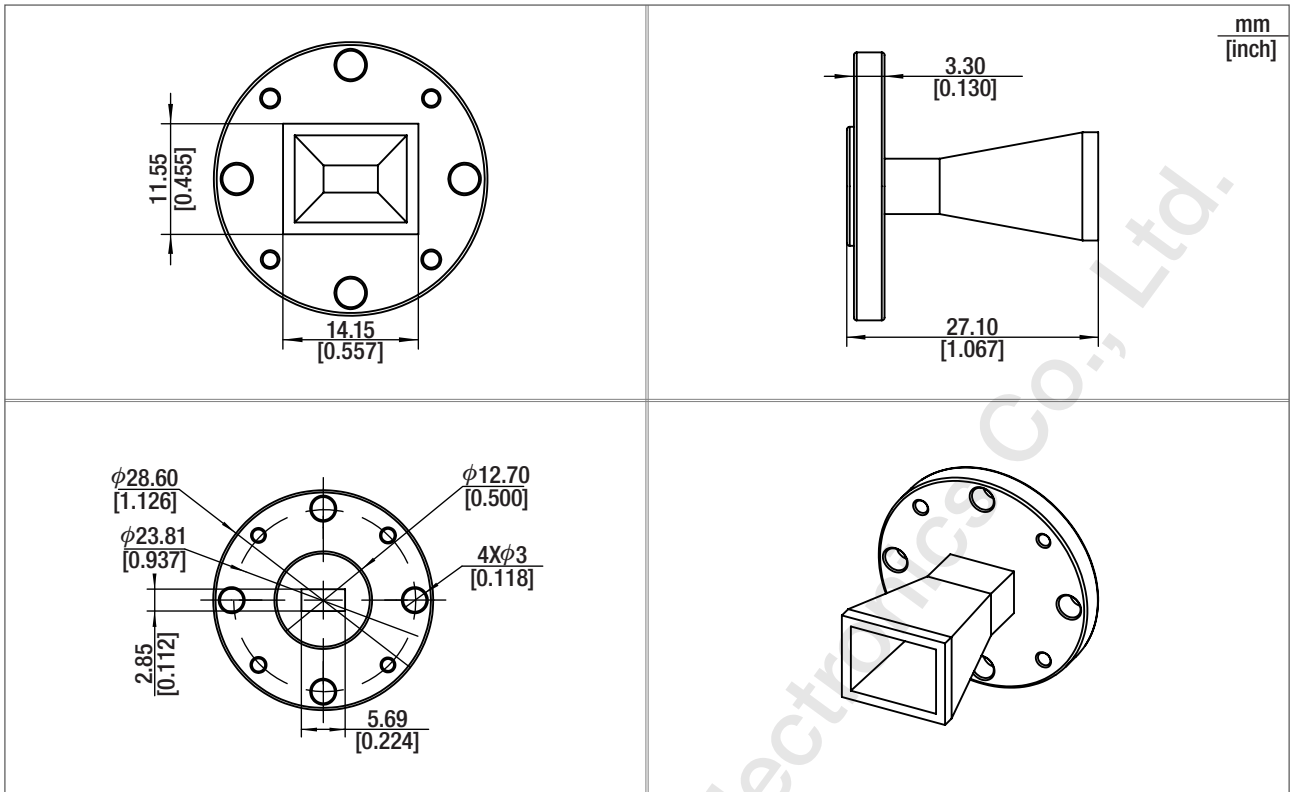


Side view of the mounting system.

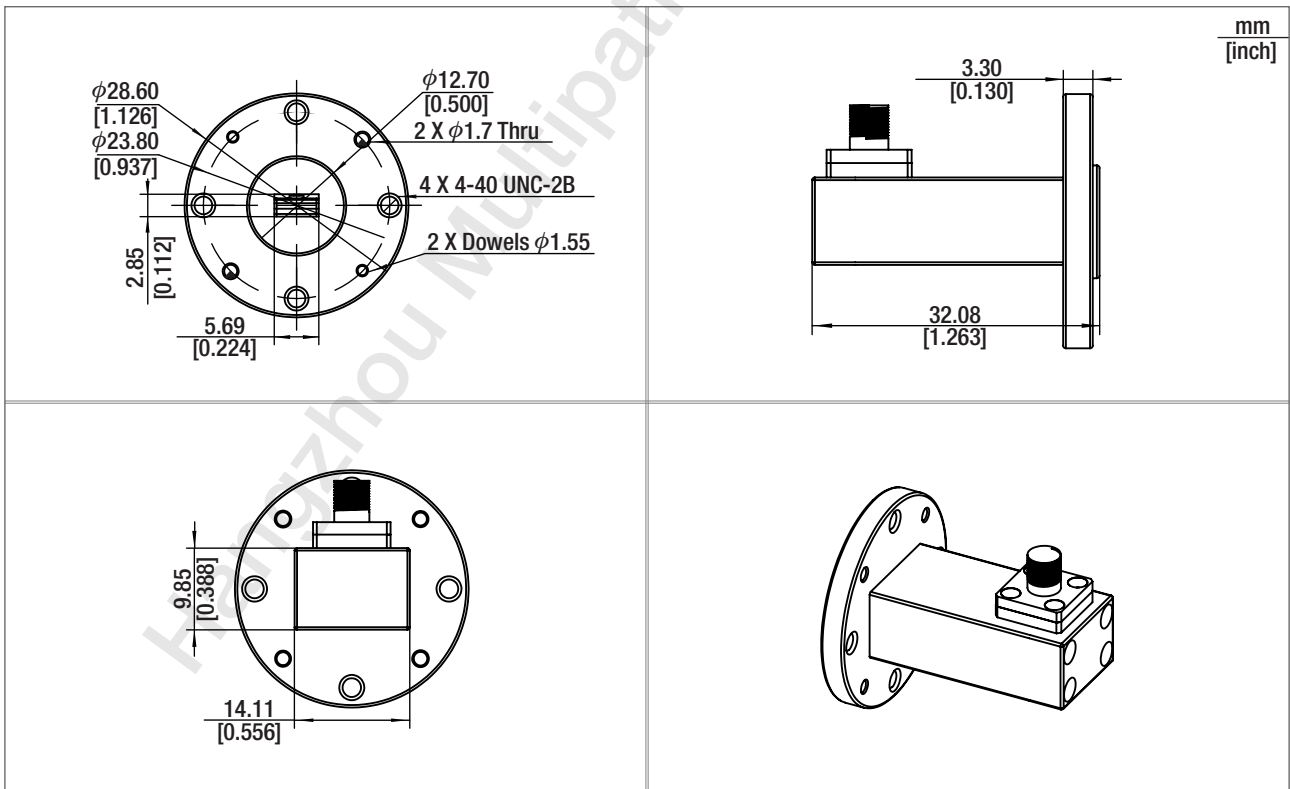
Detailed dimensions of the components will be given in subsequent diagrams.



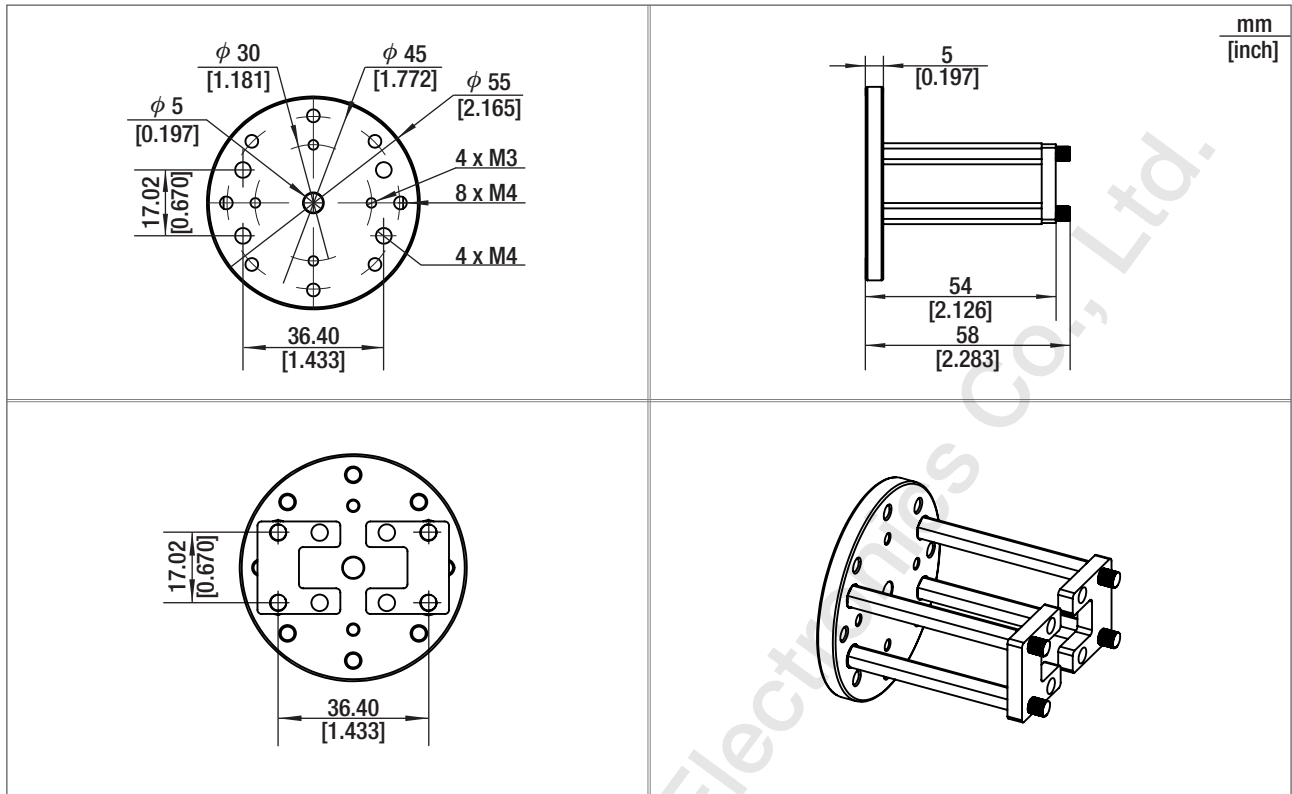
• Dimensional drawing: horn, HA-WR22-10



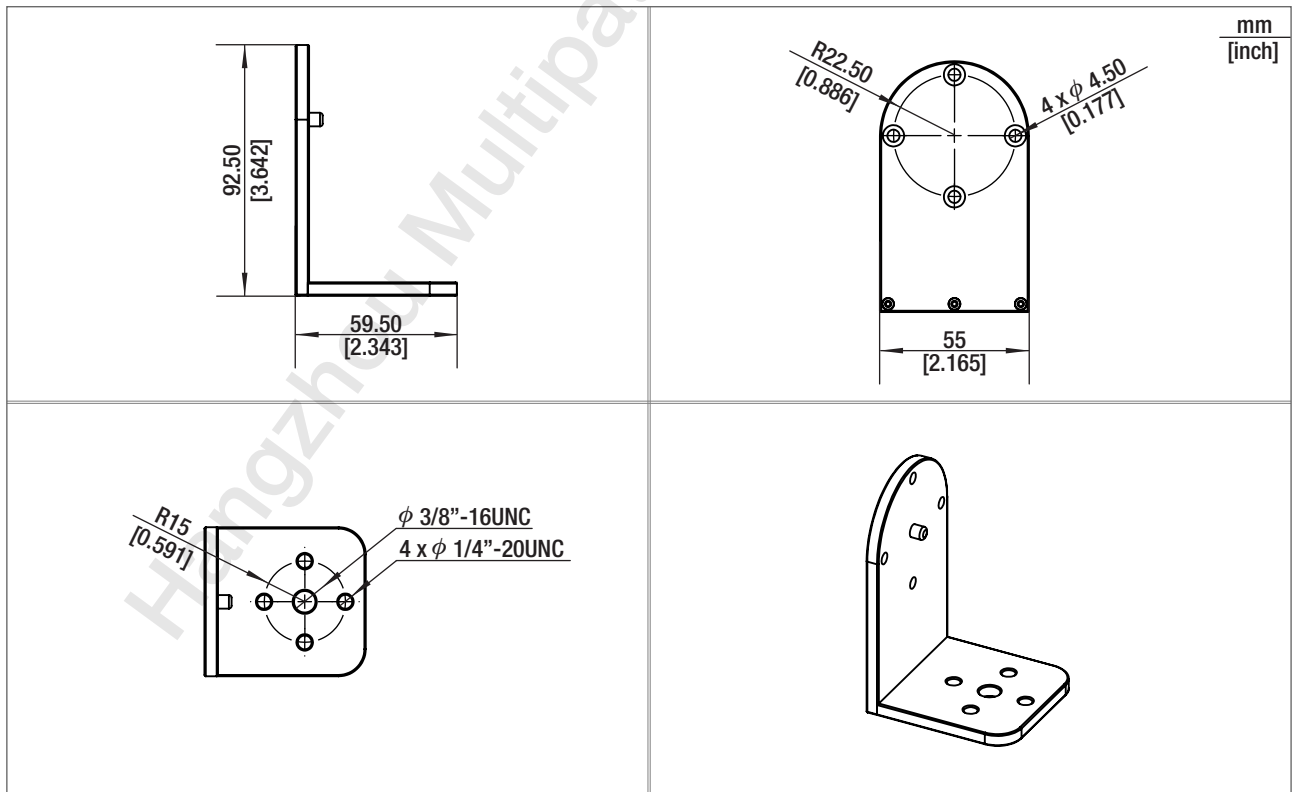
• Dimensional drawing: adapter, WR22-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

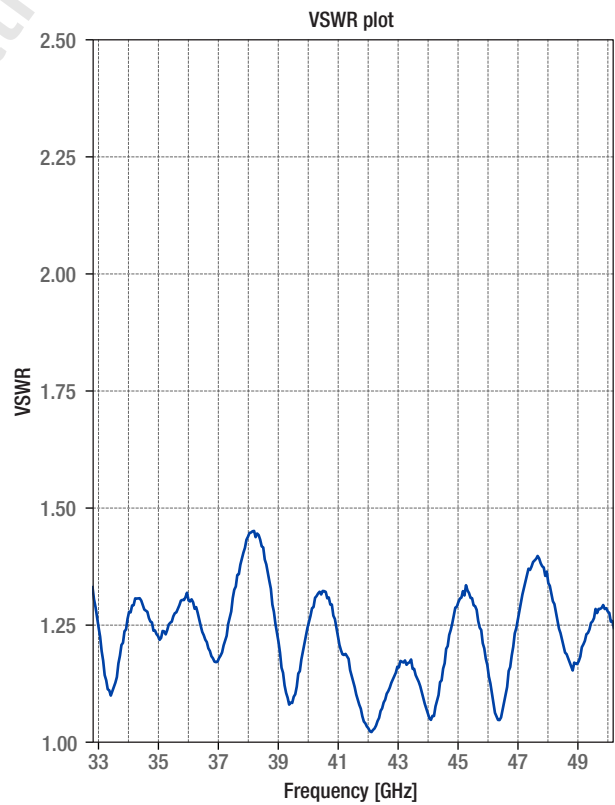
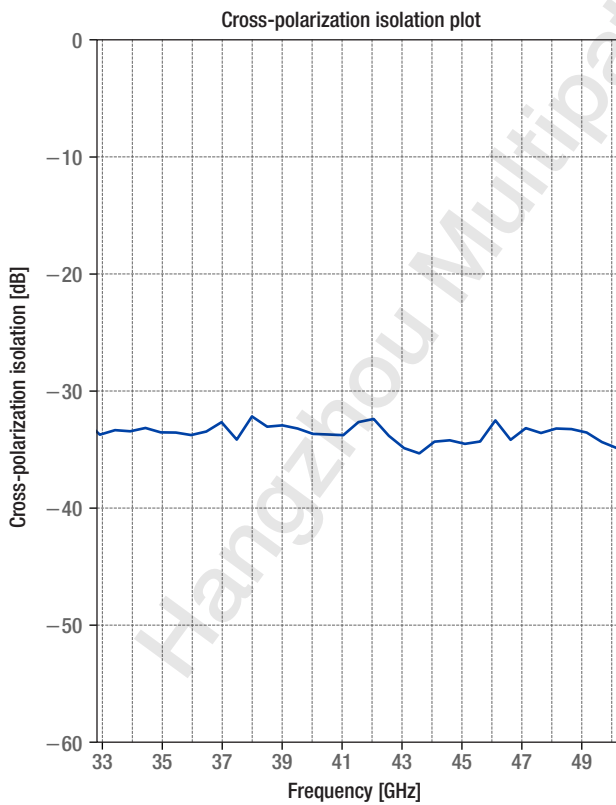
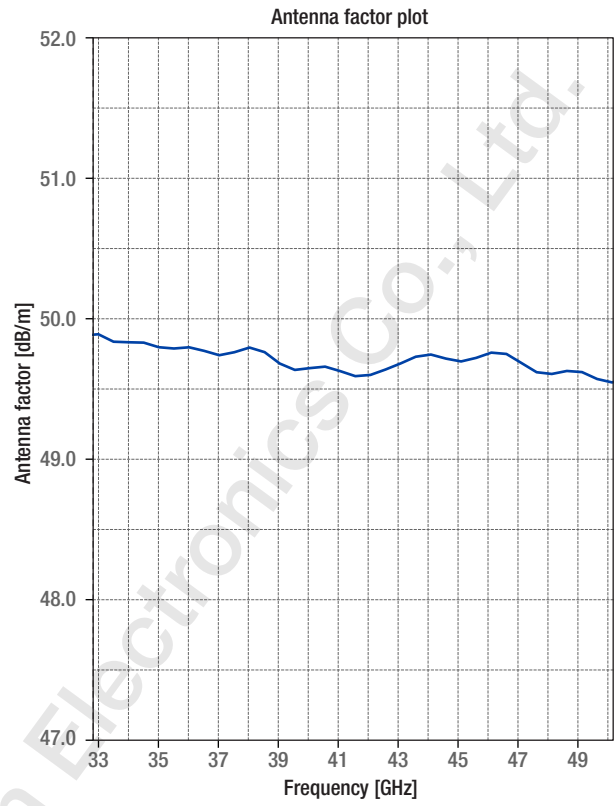
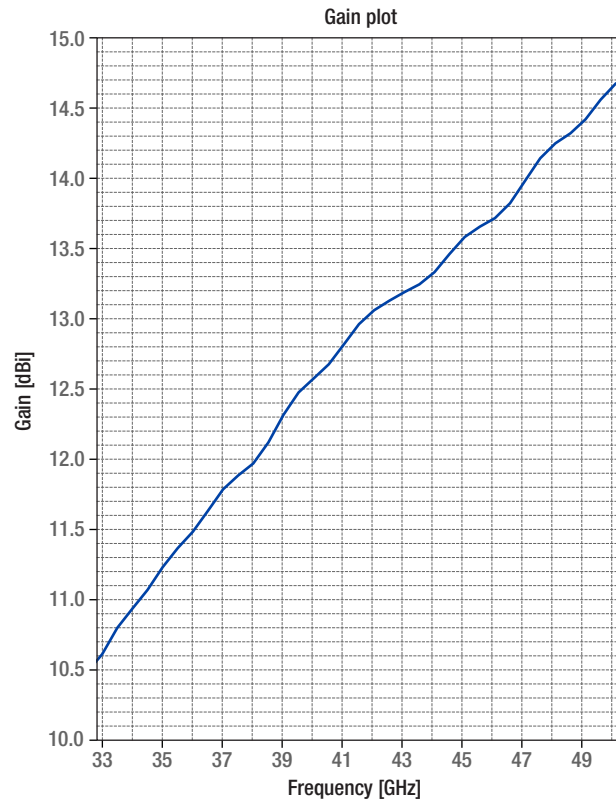


• Dimensional drawing: L type mounting bracket (Optional)



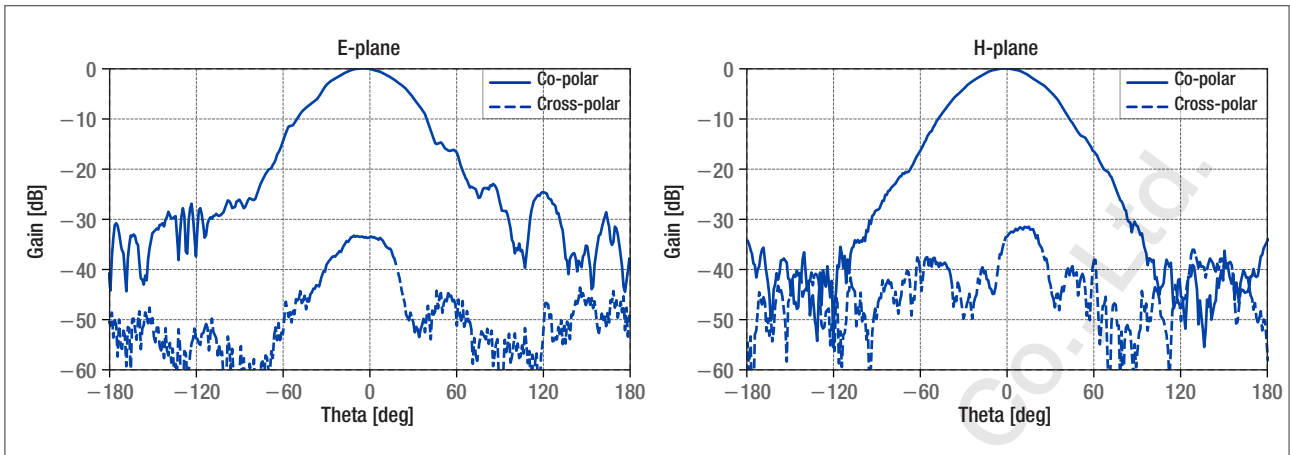
## Electrical characteristics

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

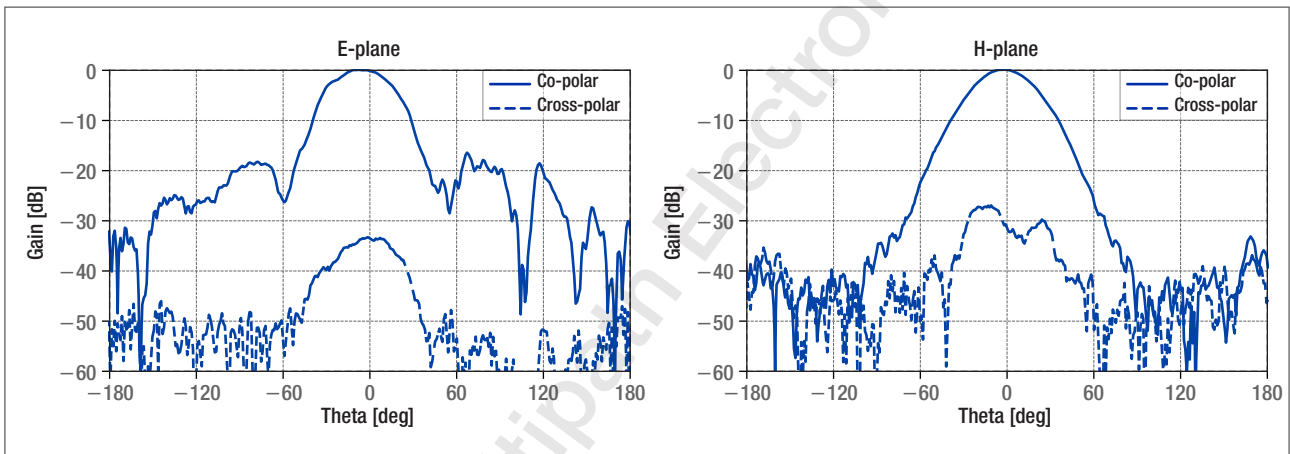


## • Radiation patterns

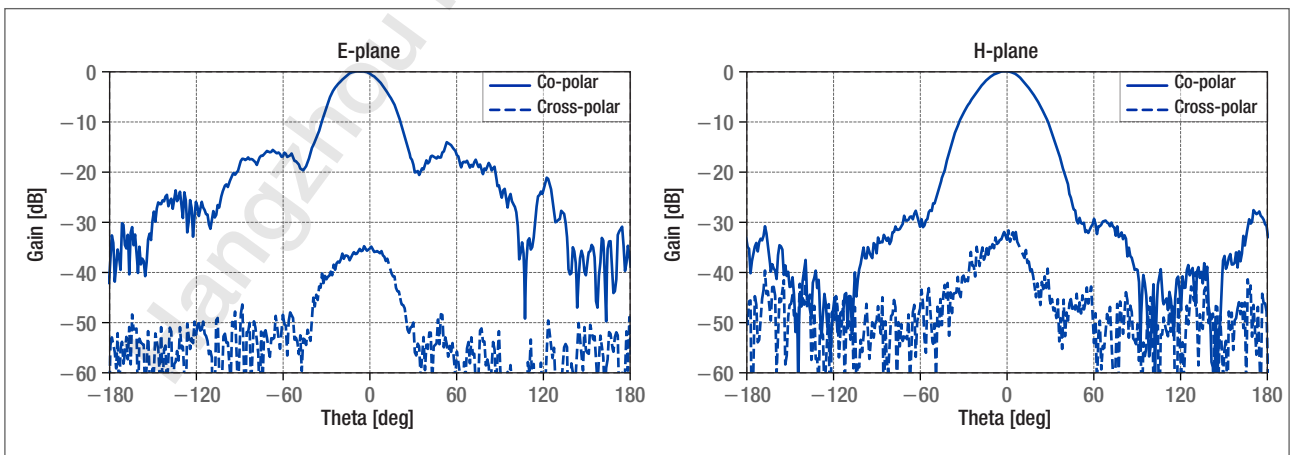
Patterns @ 33.0 GHz



Patterns @ 40.0 GHz



Patterns @ 50.0 GHz



• Data table


Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
33	10.64	49.92	-33.53	1.28
34	10.95	49.87	-33.25	1.24
35	11.24	49.83	-33.34	1.23
36	11.48	49.83	-33.56	1.31
37	11.78	49.78	-32.51	1.17
38	11.96	49.83	-32.03	1.43
39	12.29	49.72	-32.76	1.21
40	12.54	49.69	-33.46	1.25
41	12.78	49.67	-33.57	1.20
42	13.01	49.64	-32.24	1.03
43	13.14	49.72	-34.63	1.17
44	13.28	49.78	-34.10	1.05
45	13.52	49.73	-34.28	1.30
46	13.65	49.80	-32.36	1.10
47	13.91	49.72	-32.99	1.31
48	14.17	49.65	-33.03	1.29
49	14.33	49.66	-33.35	1.20
50	14.58	49.59	-34.64	1.24

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
33.0	49.40°	49.81°
40.0	43.93°	40.22°
50.0	32.64°	32.58°



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