

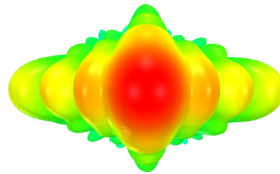


Standard Gain Horn Antennas

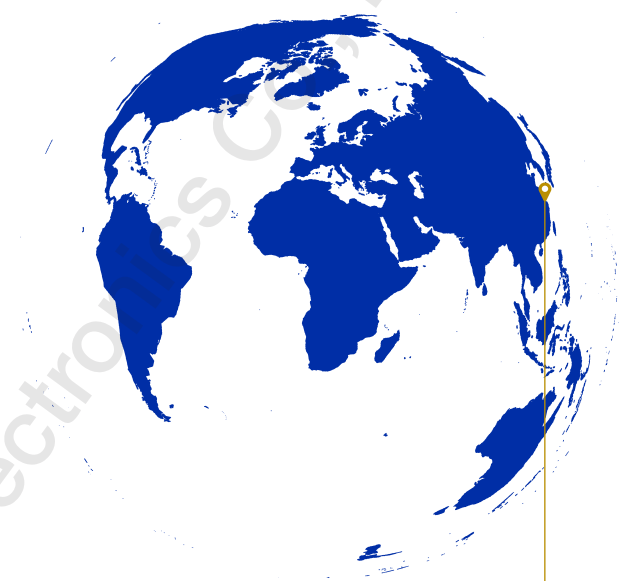
26.3 - 40.0 GHz, 20 dBi



Radiation pattern



QR code



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

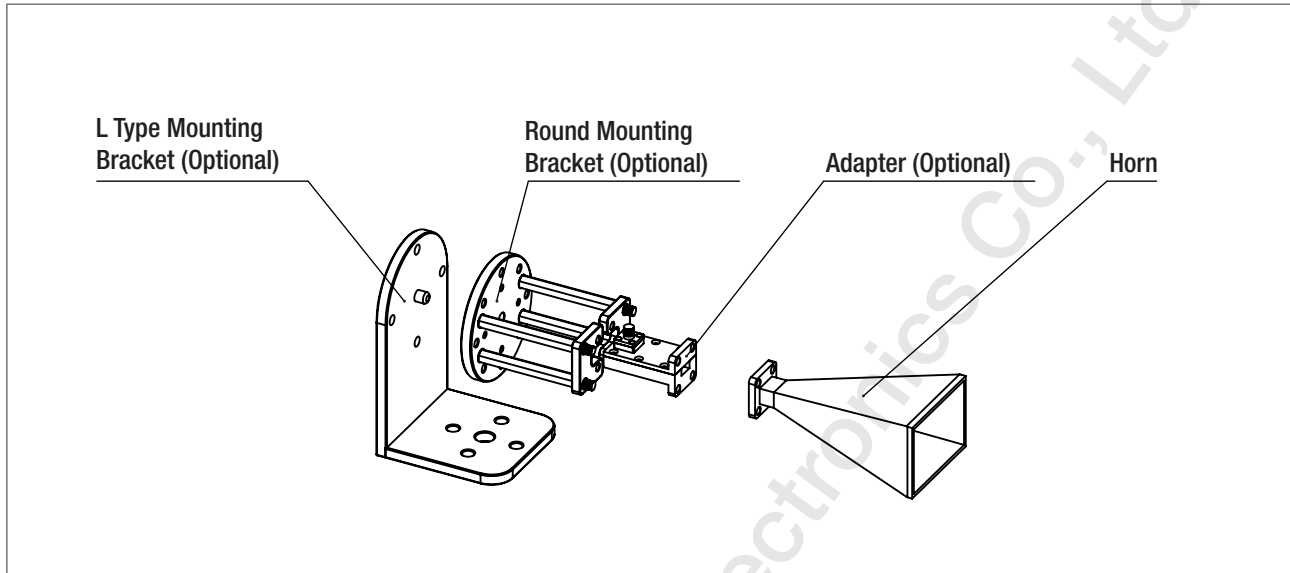
⚙️ Product specifications

Part number	HA-WR28-20	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	26.3 – 40.0	3dB beamwidth [deg]	E-plane: 15 Typ. H-plane: 15 Typ.
Waveguide band	WR28	Cross-polarization isolation [dB]	30 Typ.
Dimensions (H x W x L) [mm; inch]	34.5 x 48.0 x 118.7; 1.36 x 1.89 x 4.67	VSWR	1.15 Typ.
Weight (approx.) [kg; lb]	0.07; 0.154	Impedance [Ohms]	50
Material	Aluminum	RF connector	2.4-Female

Outline dimensions

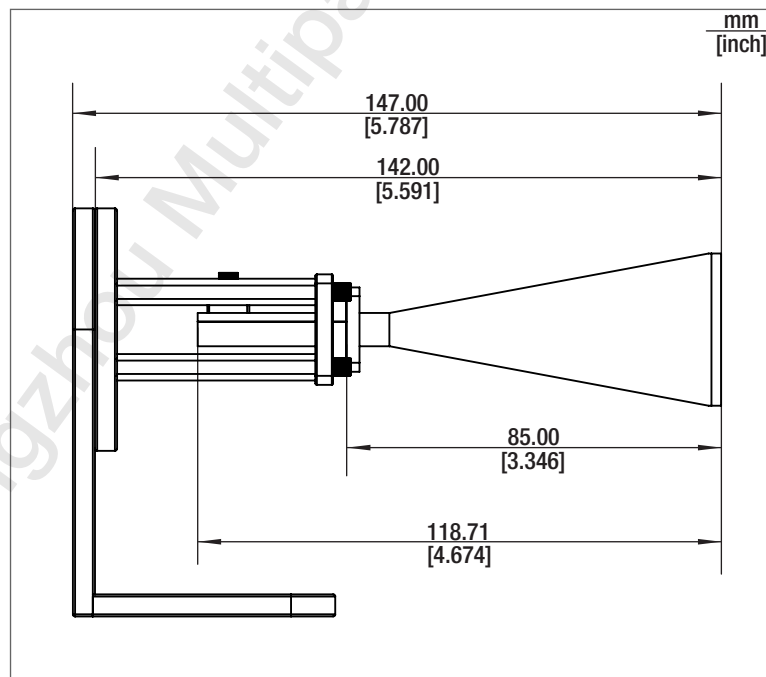
• Assembly dimensional drawing

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.

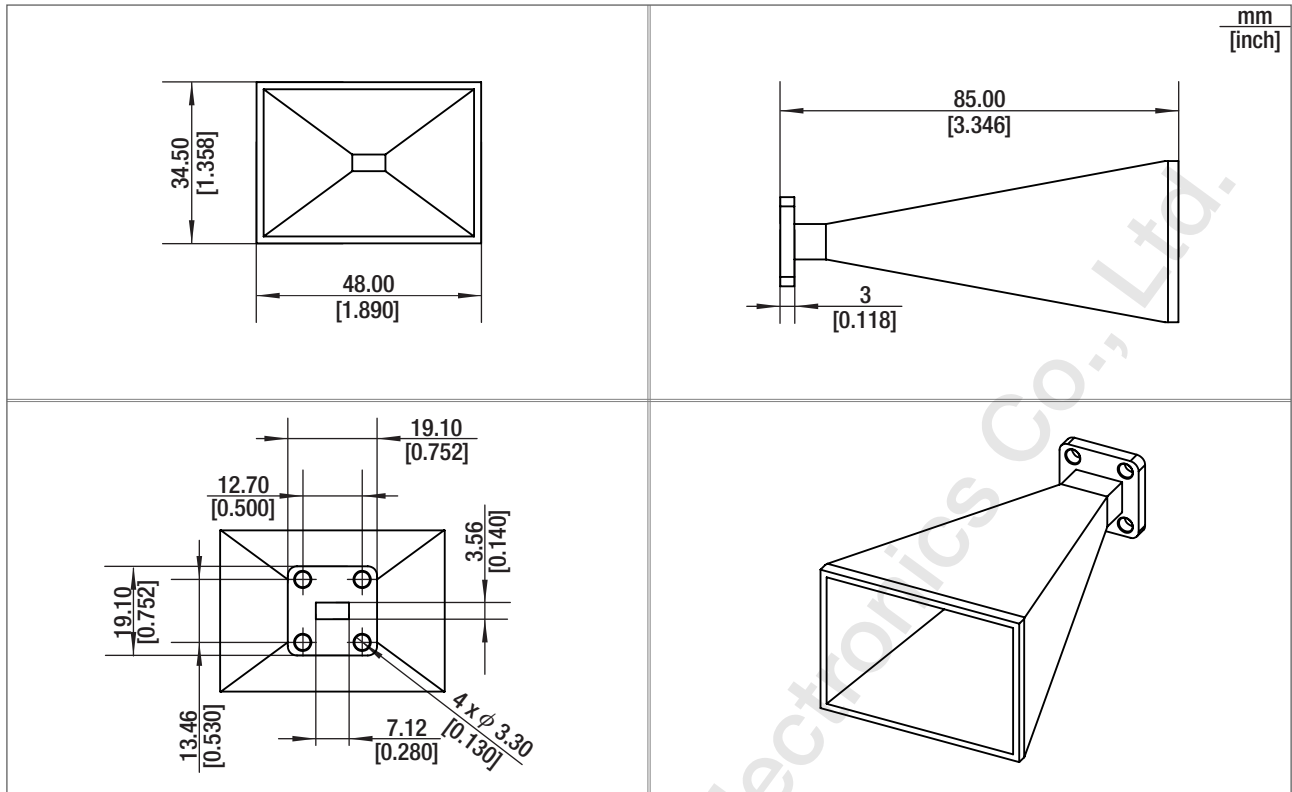


Side view of the mounting system.

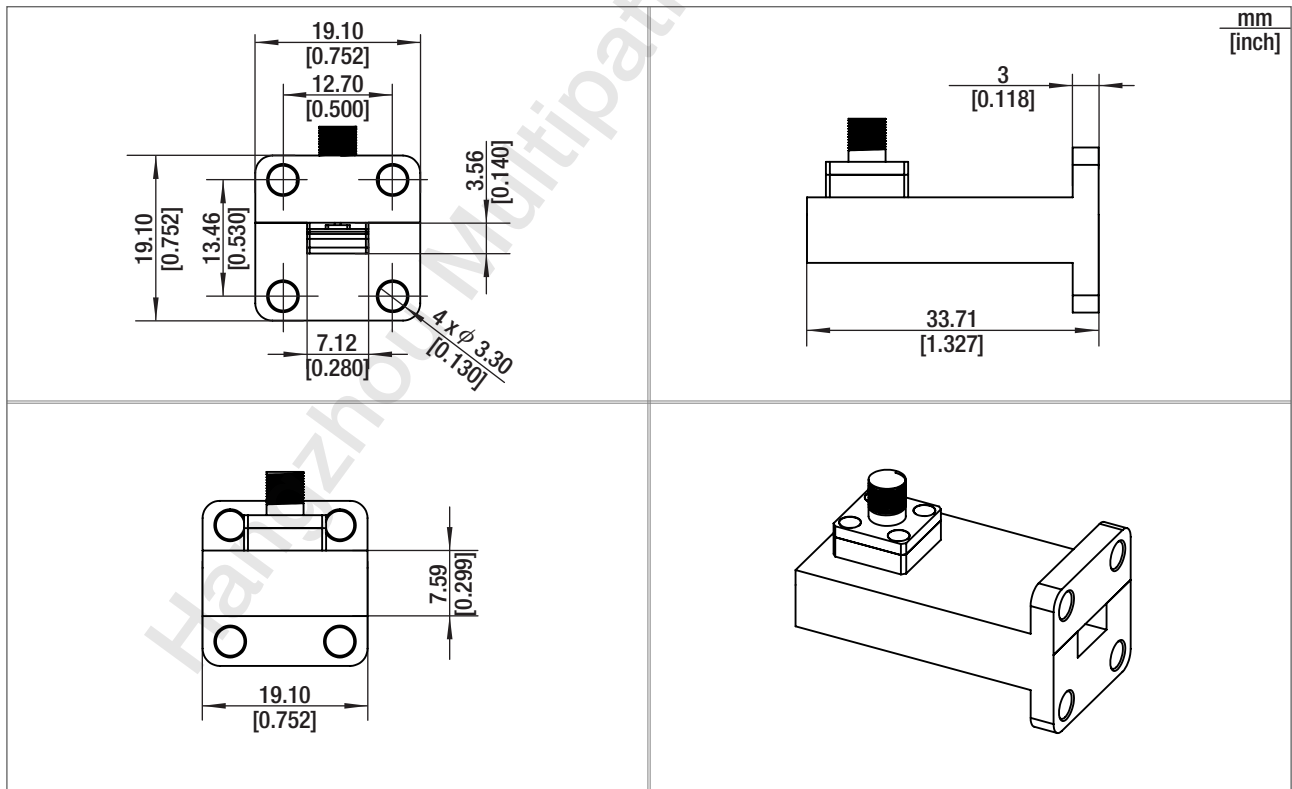
Detailed dimensions of the components will be given in subsequent diagrams.



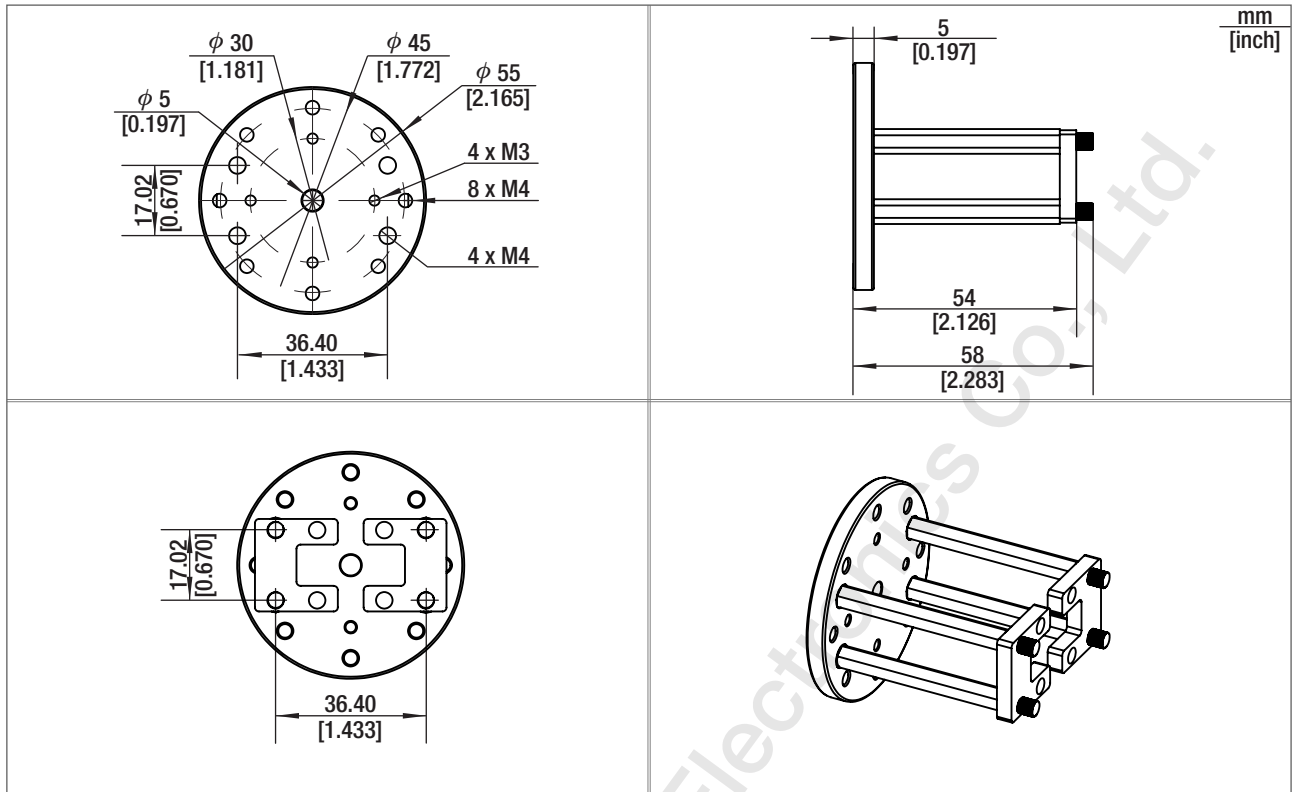
• Dimensional drawing: horn, HA-WR28-20



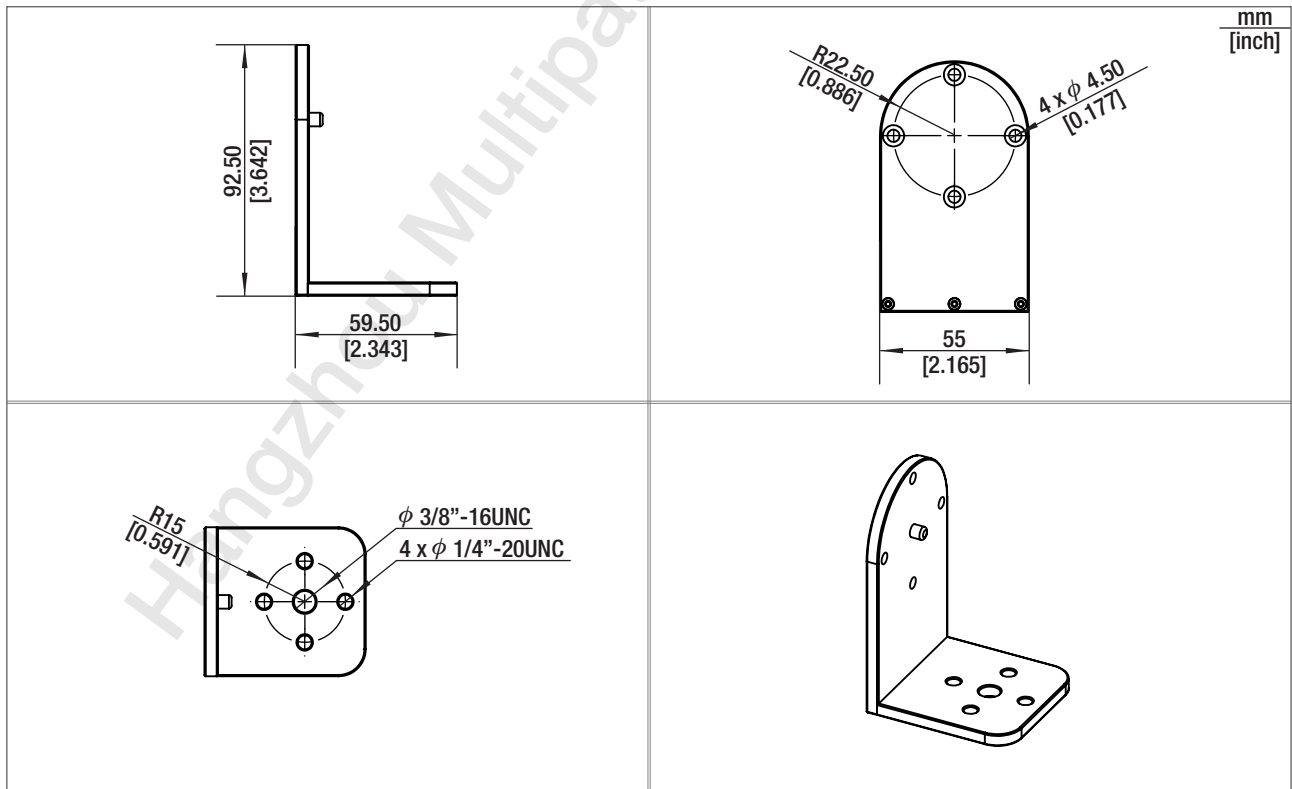
• Dimensional drawing: adapter, WR28-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

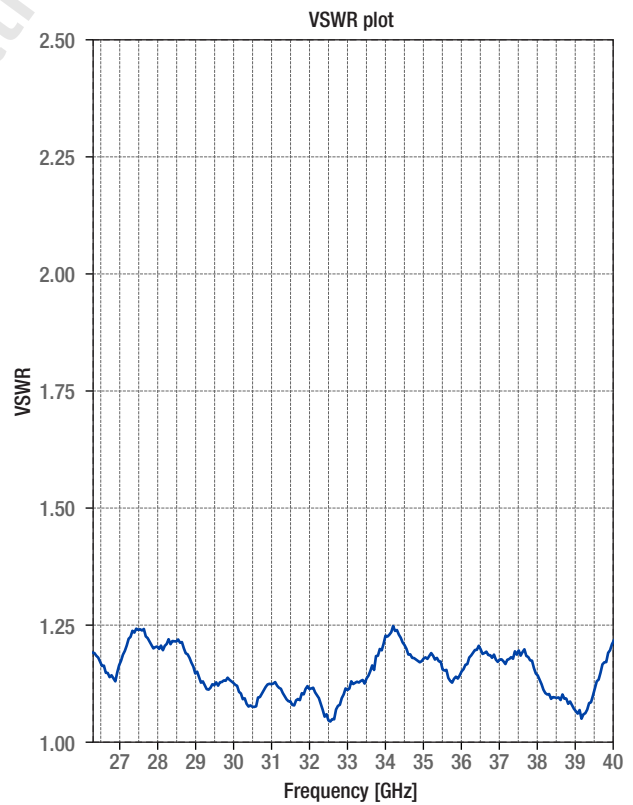
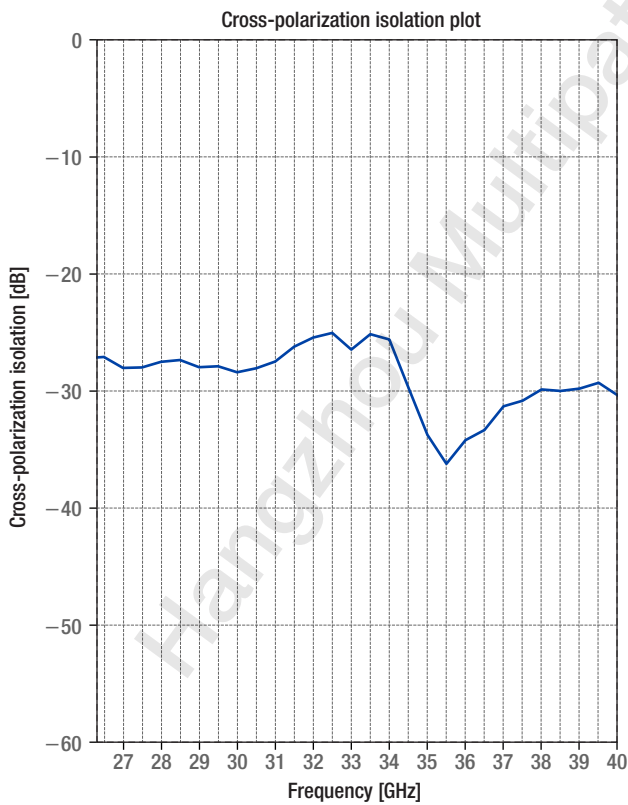
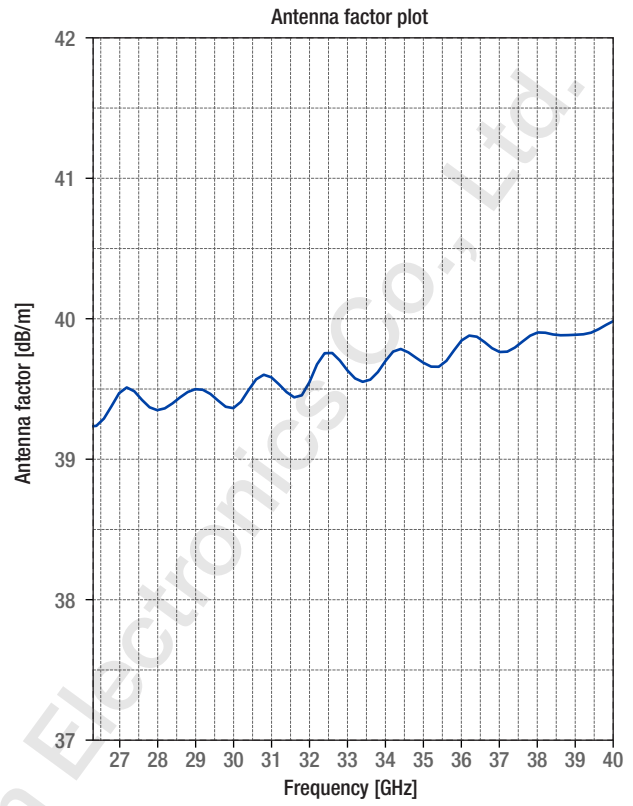
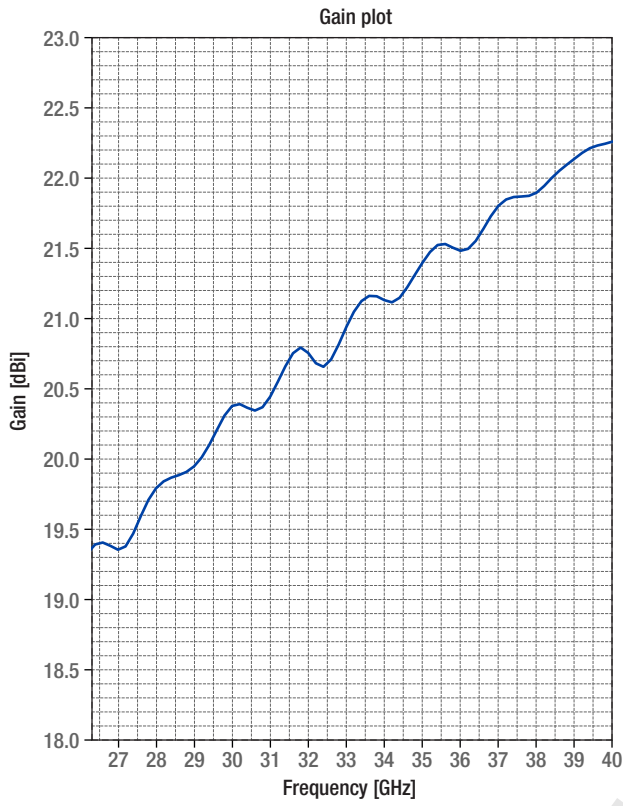


• Dimensional drawing: L type mounting bracket (Optional)



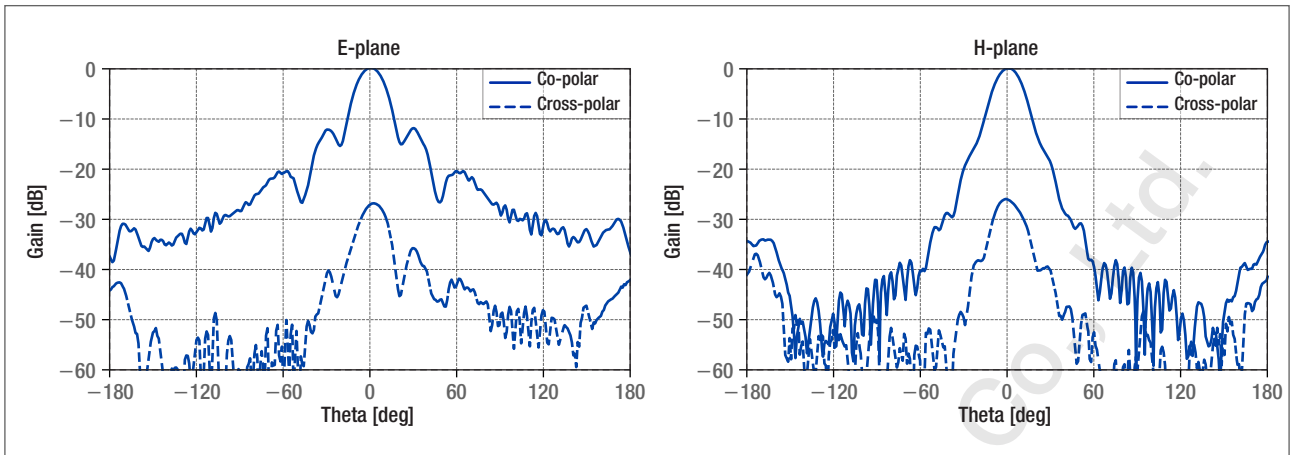
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

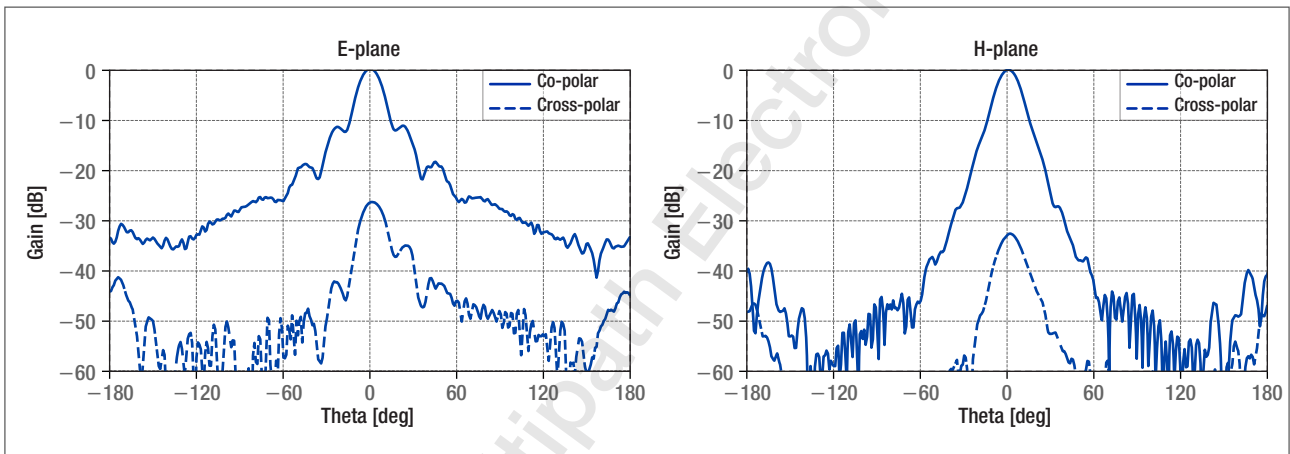


• Radiation patterns

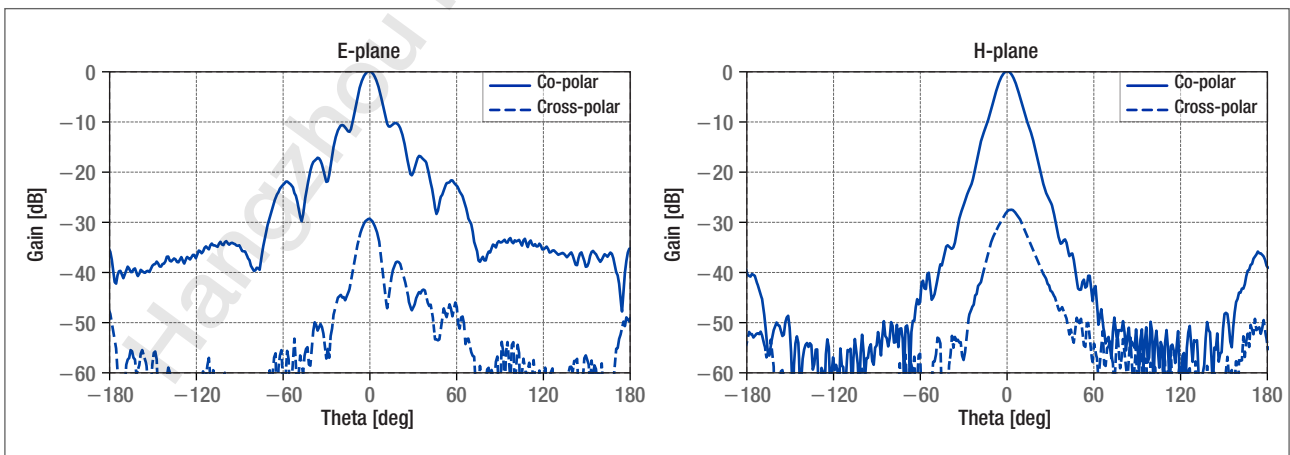
Patterns @ 26.5 GHz



Patterns @ 33.0 GHz



Patterns @ 39.5 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
26.5	19.40	39.26	-27.10	1.17
27.0	19.36	39.47	-28.03	1.17
27.5	19.53	39.45	-27.99	1.24
28.0	19.79	39.34	-27.51	1.21
28.5	19.88	39.42	-27.36	1.22
29.0	19.95	39.50	-27.97	1.15
29.5	20.16	39.44	-27.89	1.12
30.0	20.38	39.36	-28.40	1.13
30.5	20.36	39.53	-28.06	1.08
31.0	20.44	39.58	-27.49	1.13
31.5	20.71	39.46	-26.22	1.09
32.0	20.75	39.55	-25.44	1.11
32.5	20.68	39.76	-25.05	1.05
33.0	20.94	39.63	-26.47	1.11
33.5	21.14	39.56	-25.16	1.14
34.0	21.13	39.70	-25.61	1.23
34.5	21.18	39.77	-29.70	1.21
35.0	21.40	39.69	-33.74	1.18
35.5	21.53	39.68	-36.21	1.16
36.0	21.48	39.85	-34.19	1.15
36.5	21.59	39.85	-33.32	1.20
37.0	21.80	39.76	-31.30	1.18
37.5	21.86	39.82	-30.83	1.20
38.0	21.89	39.90	-29.87	1.14
38.5	22.02	39.88	-30.00	1.10
39.0	22.13	39.89	-29.79	1.07

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
26.5	18.44°	18.15°
33.0	15.13°	15.17°
39.5	12.57°	13.16°



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