

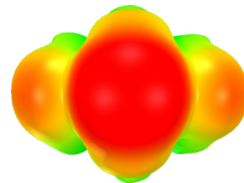


# Standard Gain Horn Antennas

8.2 - 12.5 GHz, 15 dBi



Radiation pattern



QR code



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

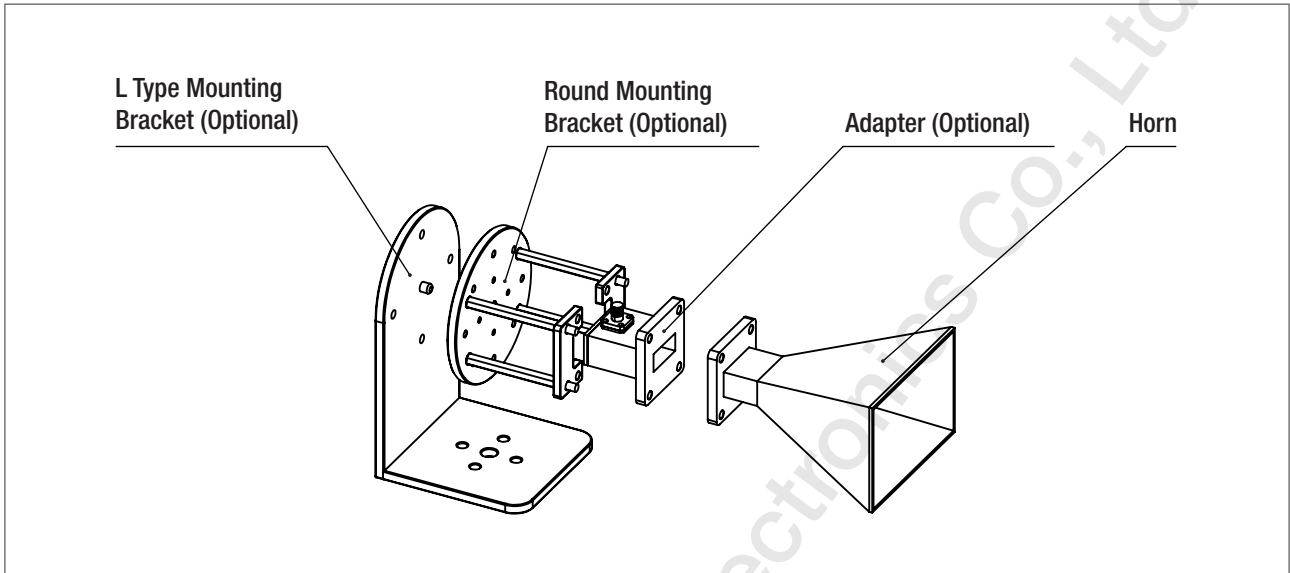
## ⚙️ Product specifications

Part number	HA-WR90-15	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	15 Typ.
Frequency range [GHz]	8.2 – 12.5	3dB beamwidth [deg]	E-plane: 25 Typ. H-plane: 25 Typ.
Waveguide band	WR90	Cross-polarization isolation [dB]	35 Typ.
Dimensions (H x W x L) [mm; inch]	59.9 x 87.2 x 140.3; 2.36 x 3.43 x 5.51	VSWR	1.20 Typ.
Weight (approx.) [kg; lb]	0.18; 0.397	Impedance [Ohms]	50
Material	Aluminum	RF connector	SMA-Female

Outline dimensions

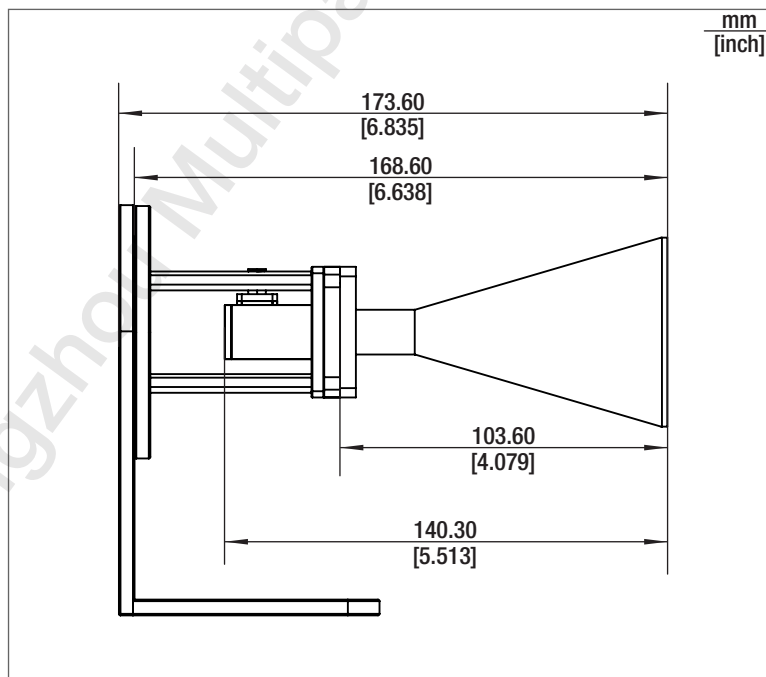
• Assembly dimensional drawing

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.

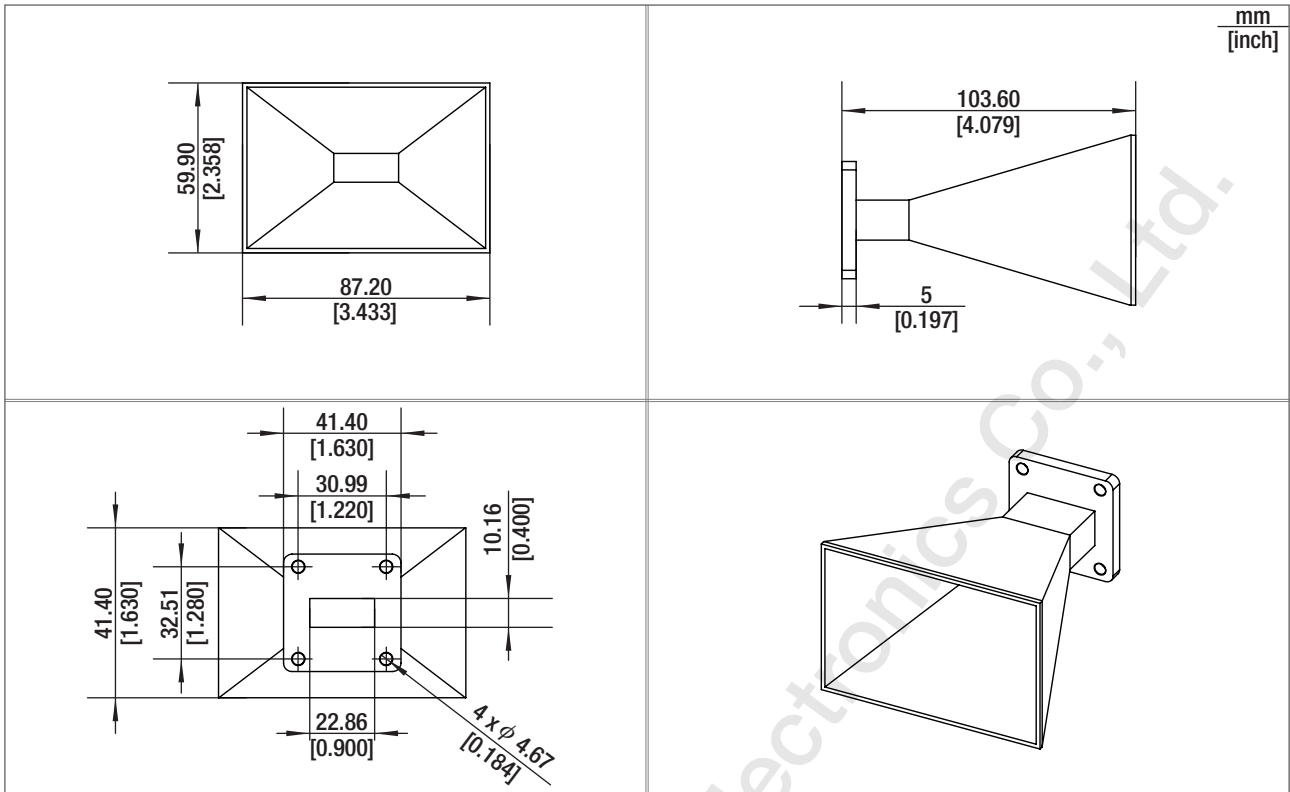


Side view of the mounting system.

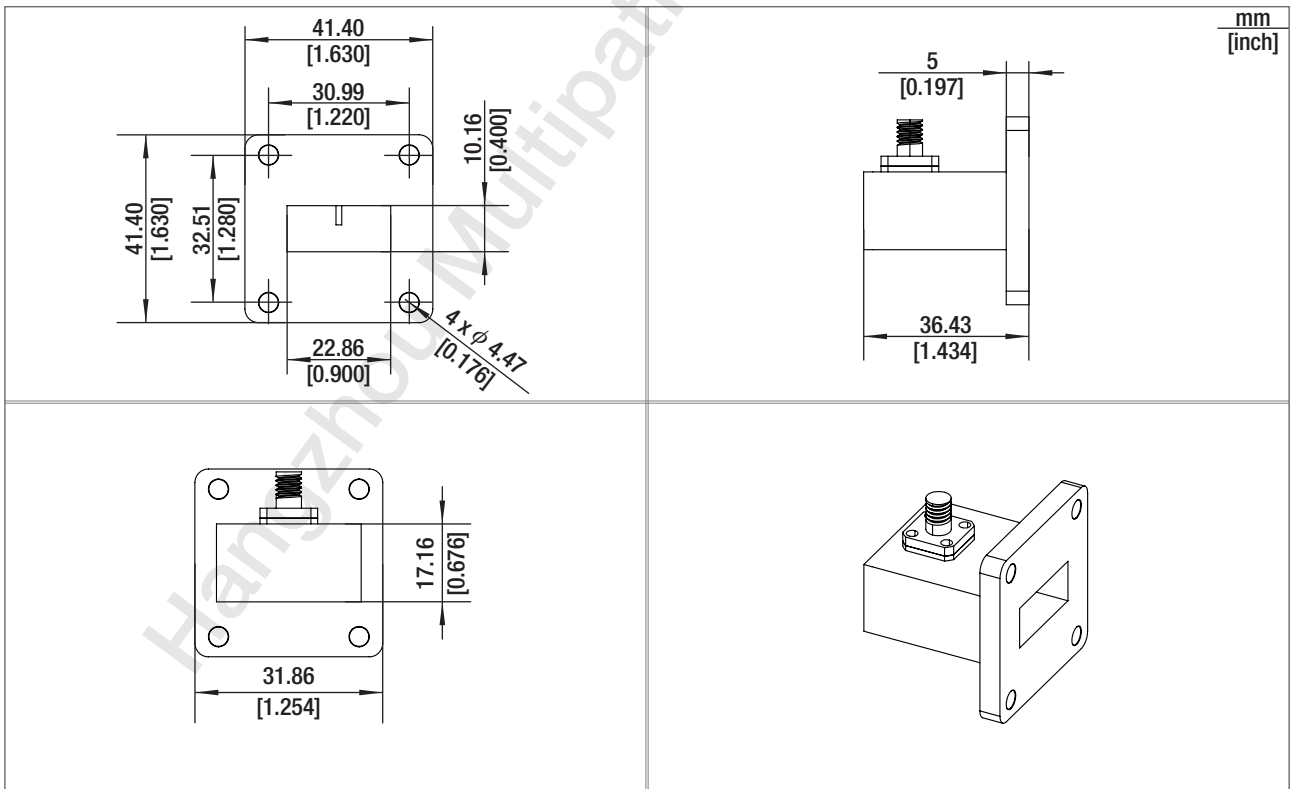
Detailed dimensions of the components will be given in subsequent diagrams.



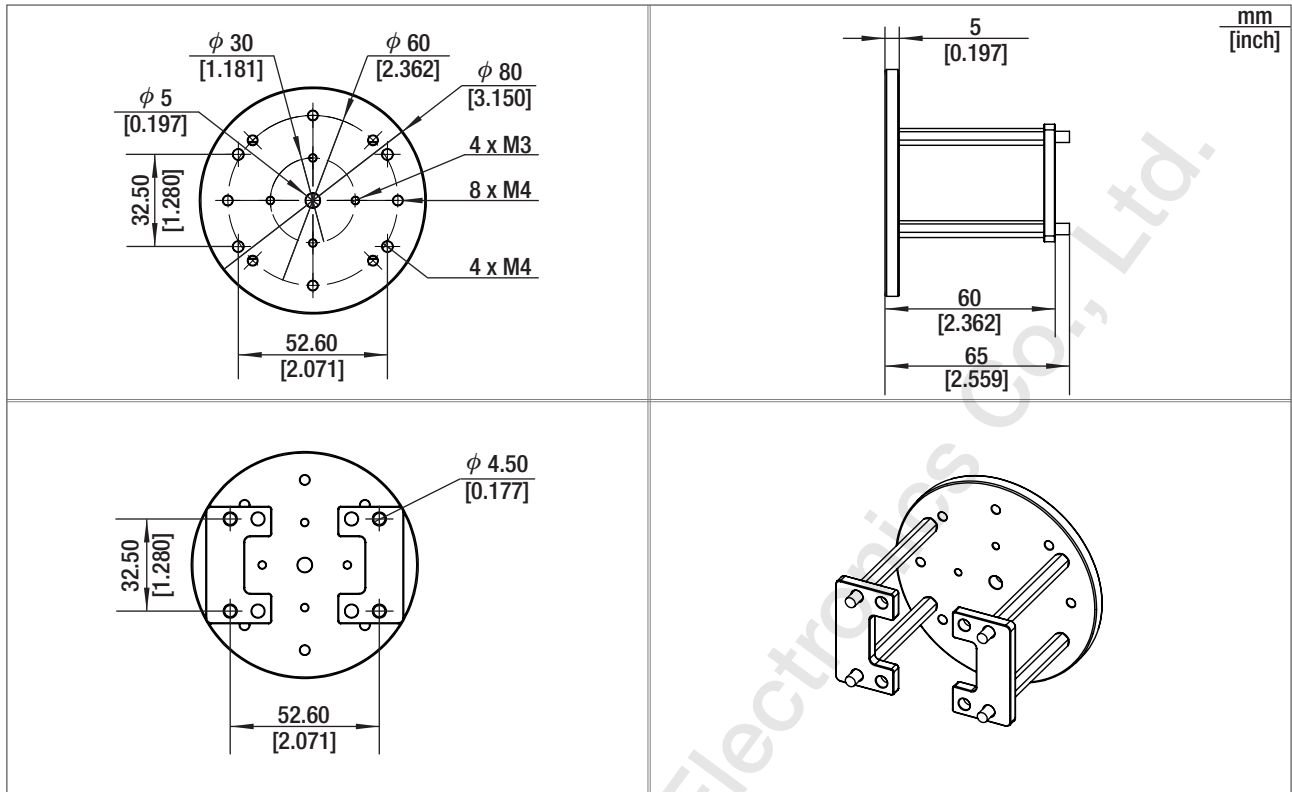
• Dimensional drawing: horn, HA-WR90-15



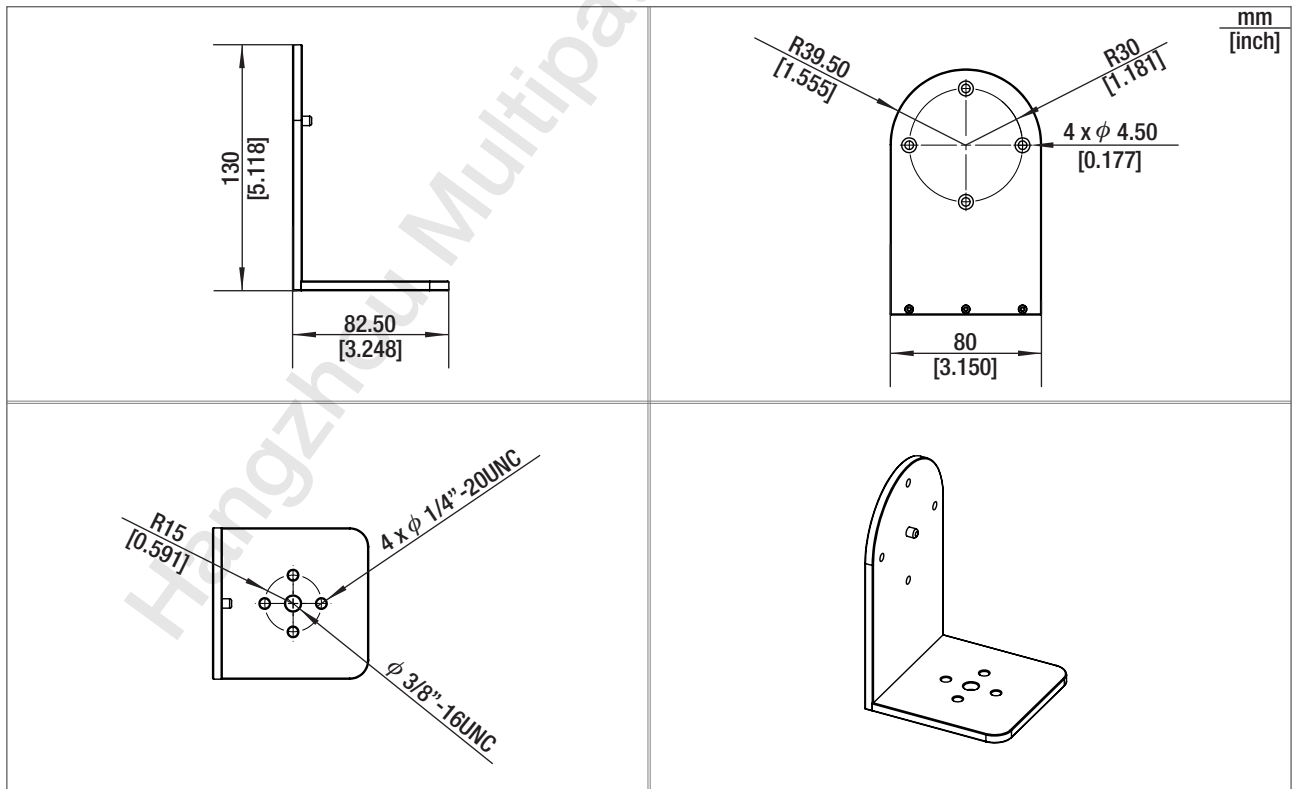
• Dimensional drawing: adapter, WR90-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

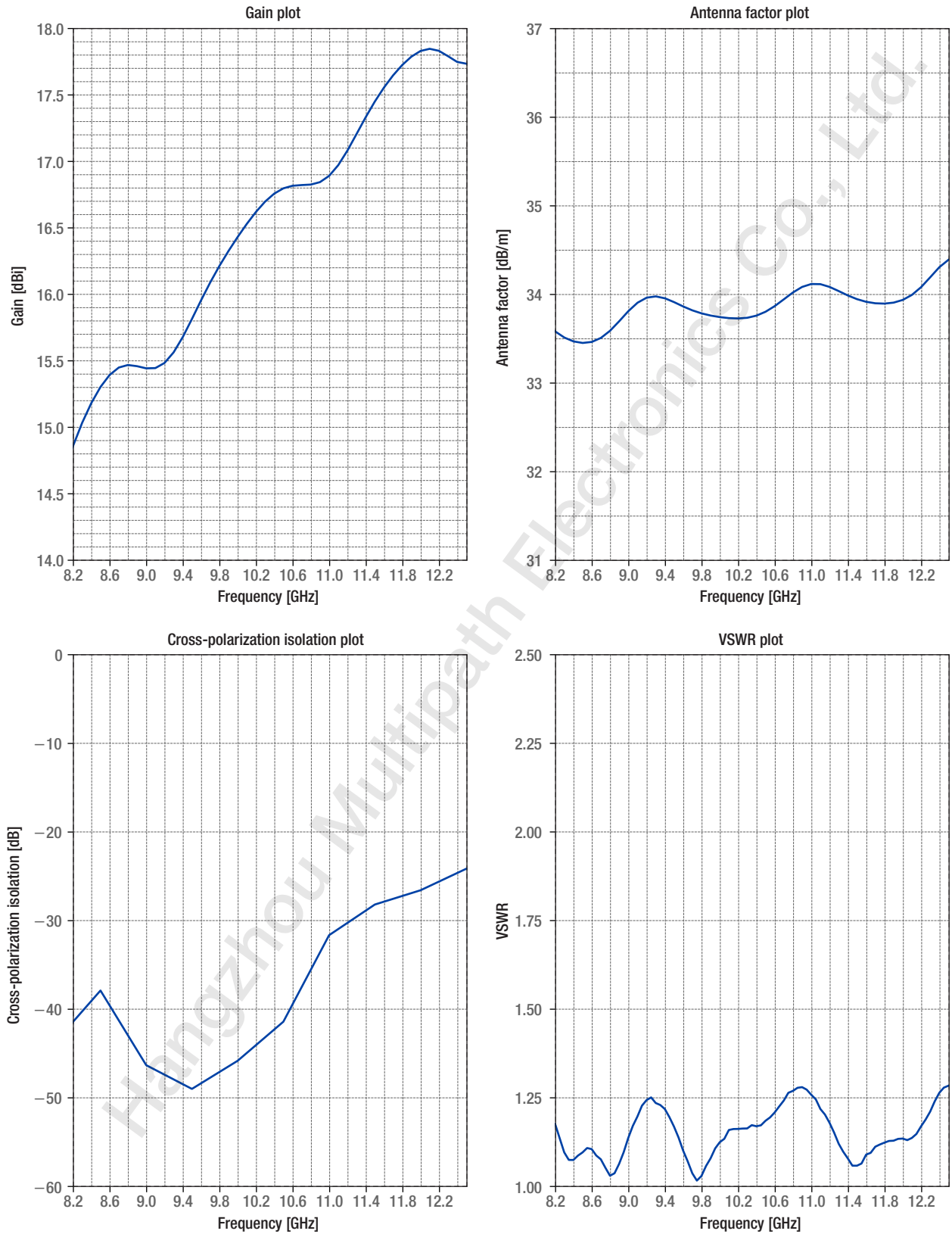


• Dimensional drawing: L type mounting bracket (Optional)



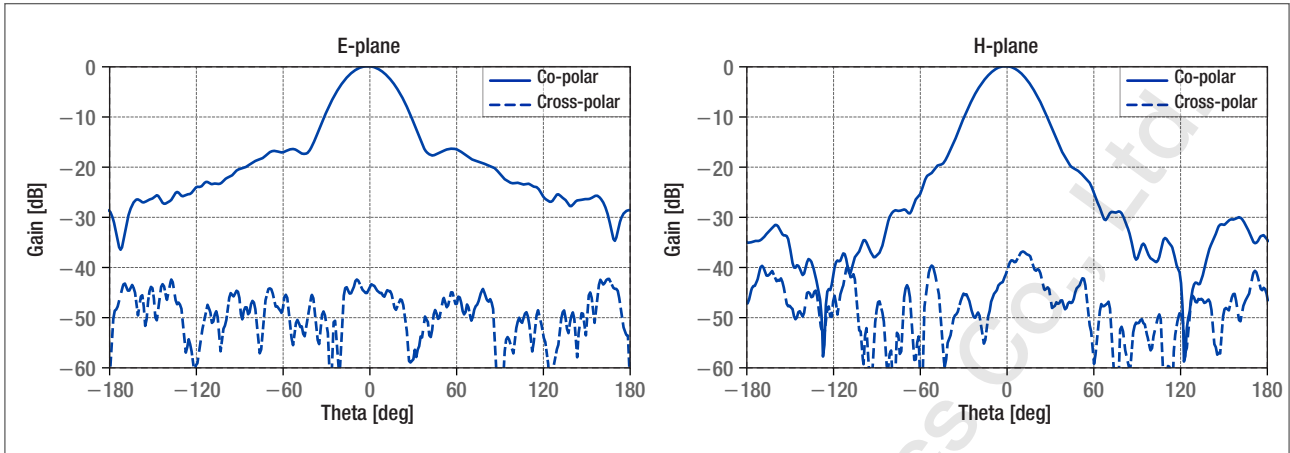
## Electrical characteristics

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

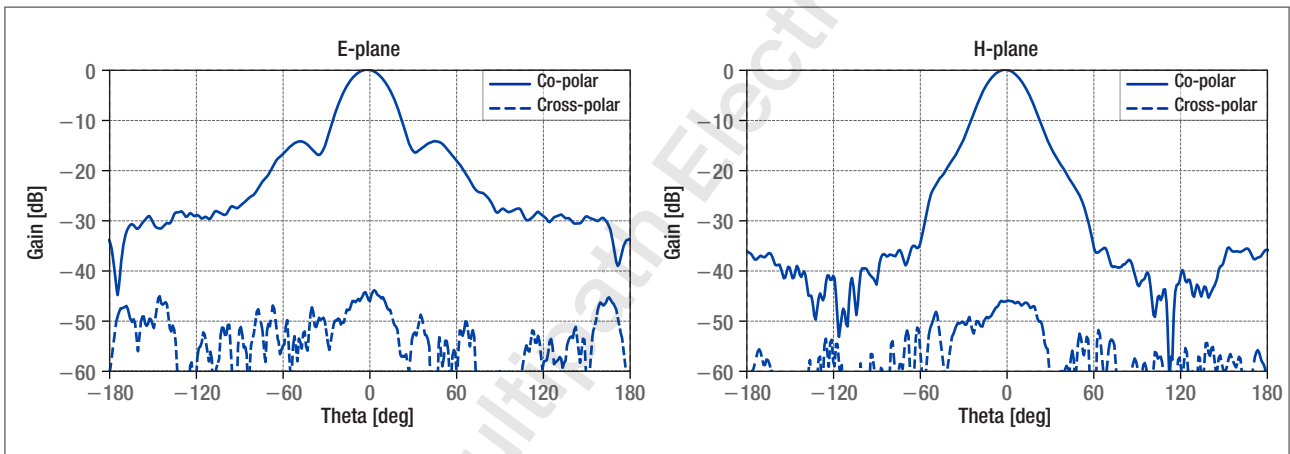


## • Radiation patterns

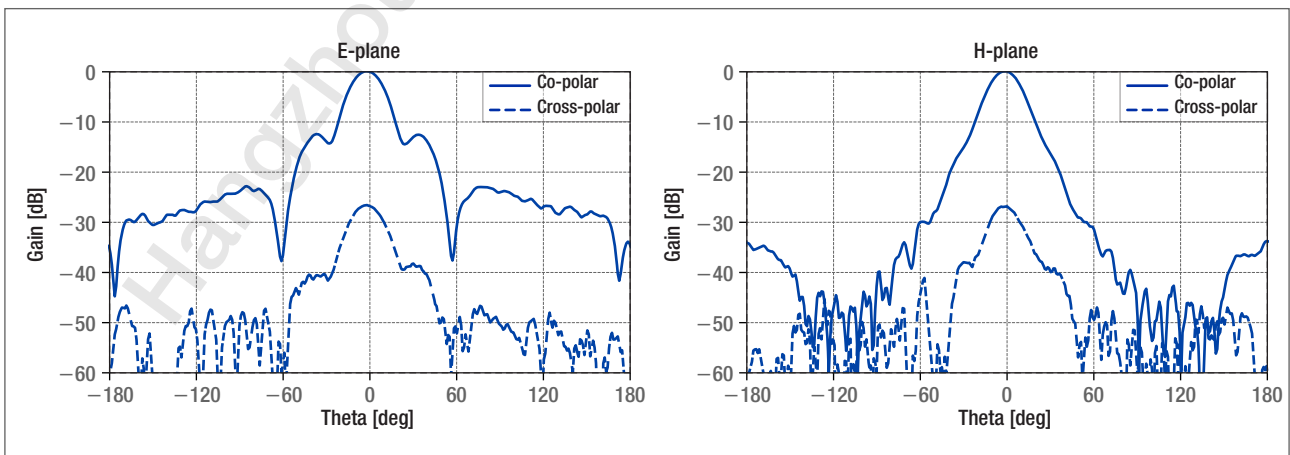
Patterns @ 8 GHz



Patterns @ 10 GHz



Patterns @ 12 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
8.2	14.87	33.60	-41.44	1.17
8.4	15.19	33.49	-39.10	1.07
8.6	15.40	33.49	-39.61	1.10
8.8	15.48	33.61	-42.96	1.03
9.0	15.45	33.83	-46.31	1.13
9.2	15.48	33.98	-47.37	1.24
9.4	15.69	33.97	-48.44	1.21
9.6	15.96	33.88	-48.34	1.10
9.8	16.22	33.81	-47.08	1.03
10.0	16.44	33.76	-45.82	1.12
10.2	16.62	33.75	-44.06	1.16
10.4	16.76	33.78	-42.31	1.17
10.6	16.82	33.89	-39.49	1.20
10.8	16.83	34.04	-35.61	1.26
11.0	16.89	34.14	-31.73	1.25
11.2	17.08	34.10	-30.35	1.18
11.4	17.33	34.00	-28.98	1.08
11.6	17.55	33.94	-27.97	1.09
11.8	17.72	33.92	-27.33	1.12
12.0	17.83	33.96	-26.69	1.13
12.2	17.83	34.10	-25.73	1.17
12.4	17.74	34.32	-24.76	1.26

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
8	33.69°	31.29°
10	27.42°	25.97°
12	22.50°	21.88°



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