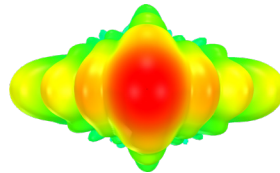




Standard Gain Horn Antennas

17.6 - 26.7 GHz, 20 dBi

Radiation pattern



QR code



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

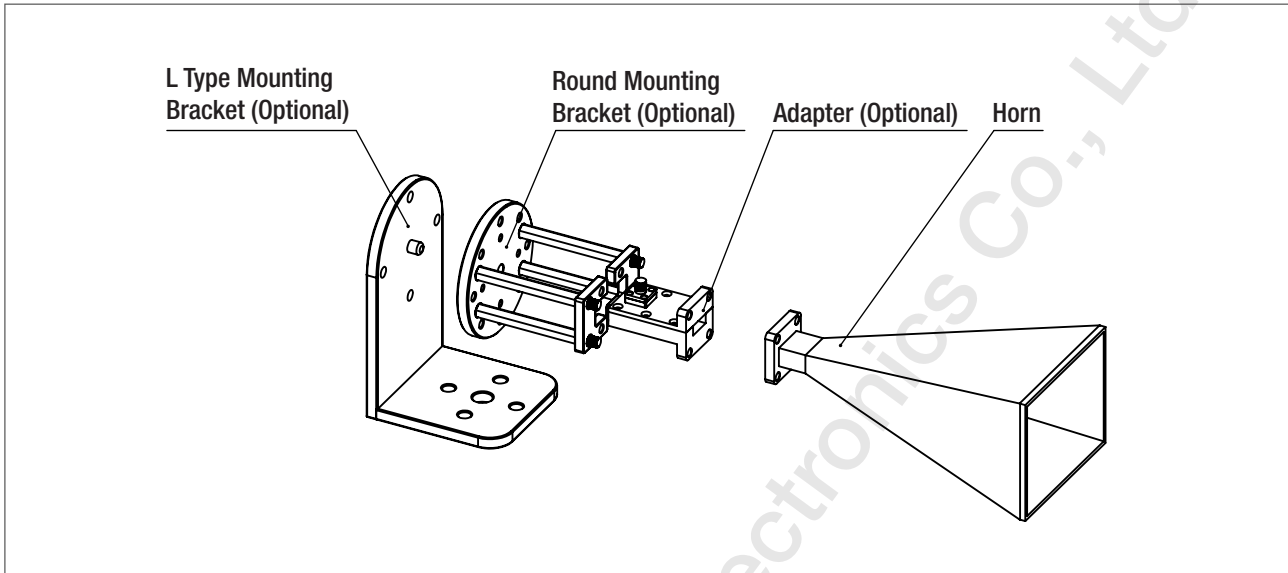
⚙️ Product specifications

Part number	HA-WR42-20	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	17.6 – 26.7	3dB beamwidth [deg]	E-plane: 15 Typ. H-plane: 15 Typ.
Waveguide band	WR42	Cross-polarization isolation [dB]	35 Typ.
Dimensions (H x W x L) [mm; inch]	67.3 x 53.0 x 161.5; 2.65 x 2.09 x 6.36	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.13; 0.287	Impedance [Ohms]	50
Material	Aluminum	RF connector	2.4-Female

Outline dimensions

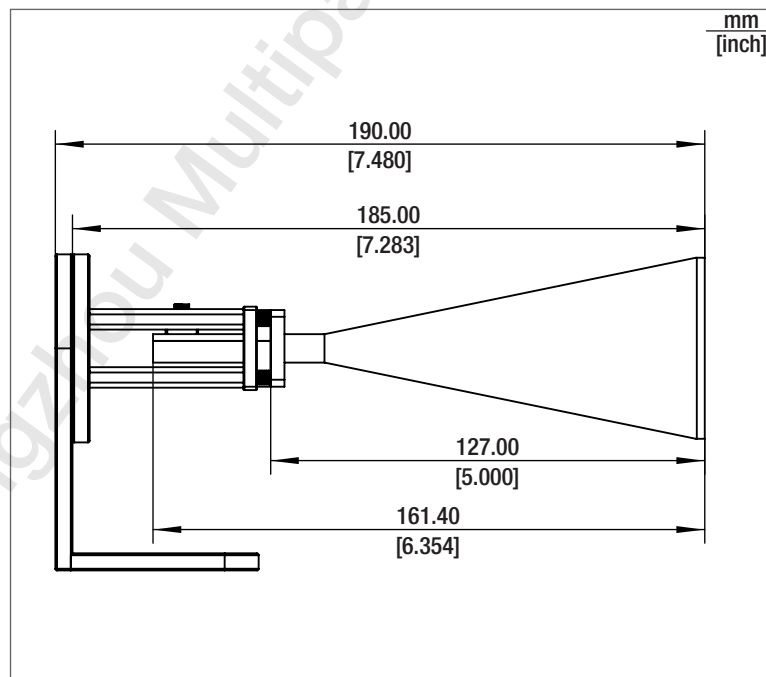
• Assembly dimensional drawing

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.

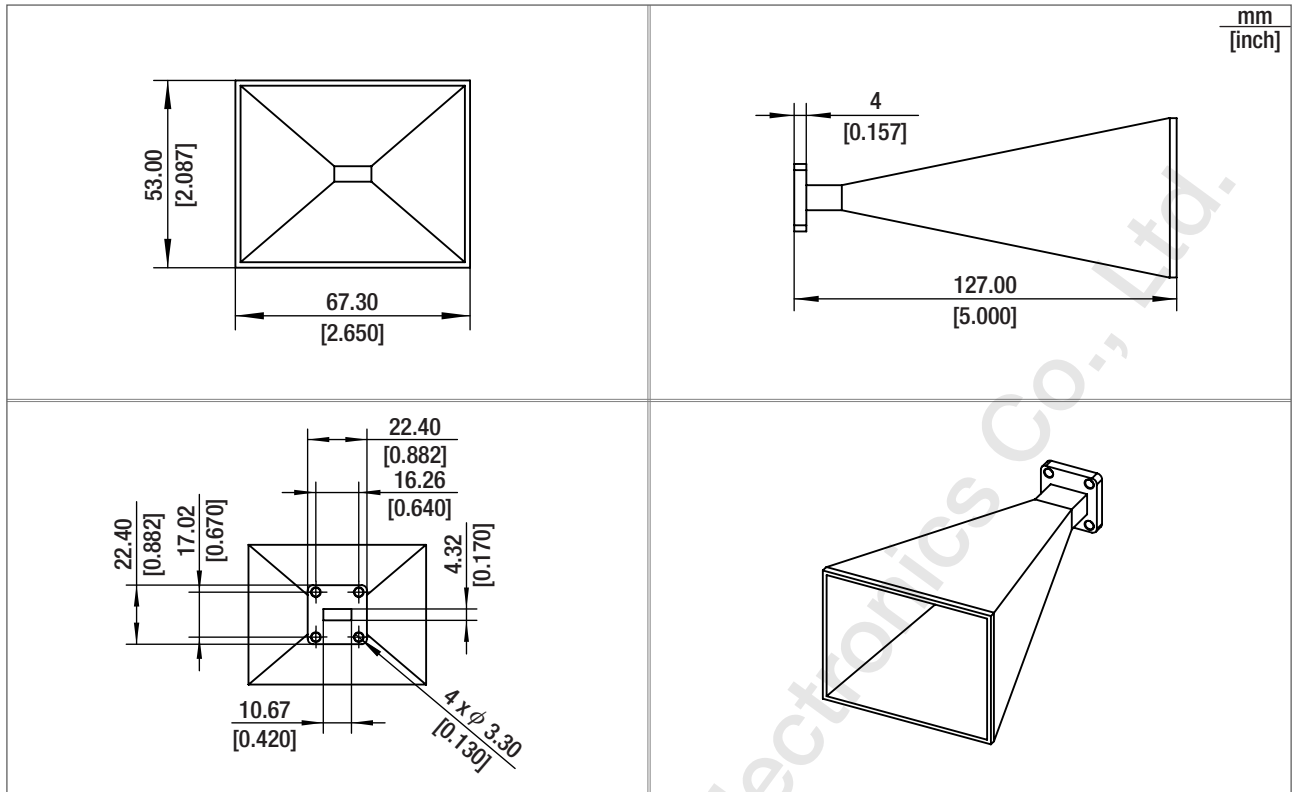


Side view of the mounting system.

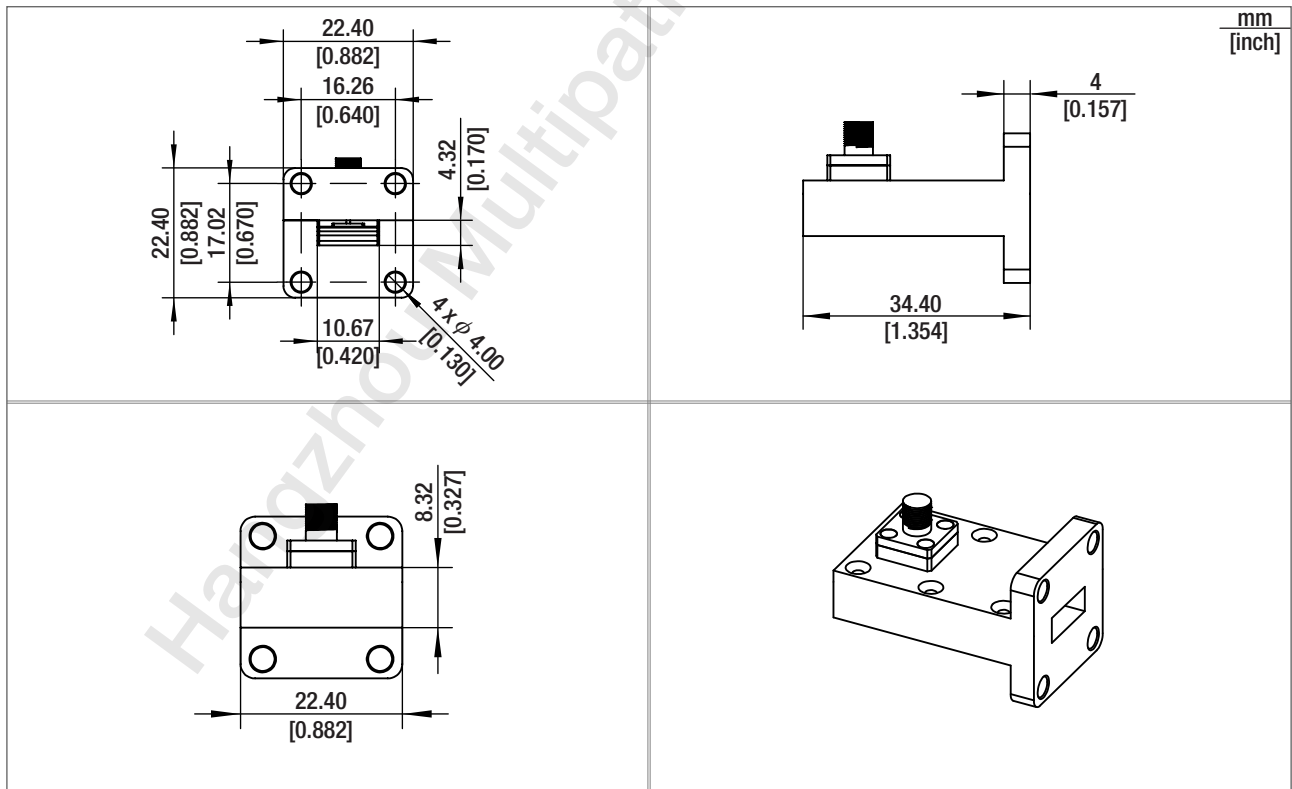
Detailed dimensions of the components will be given in subsequent diagrams.



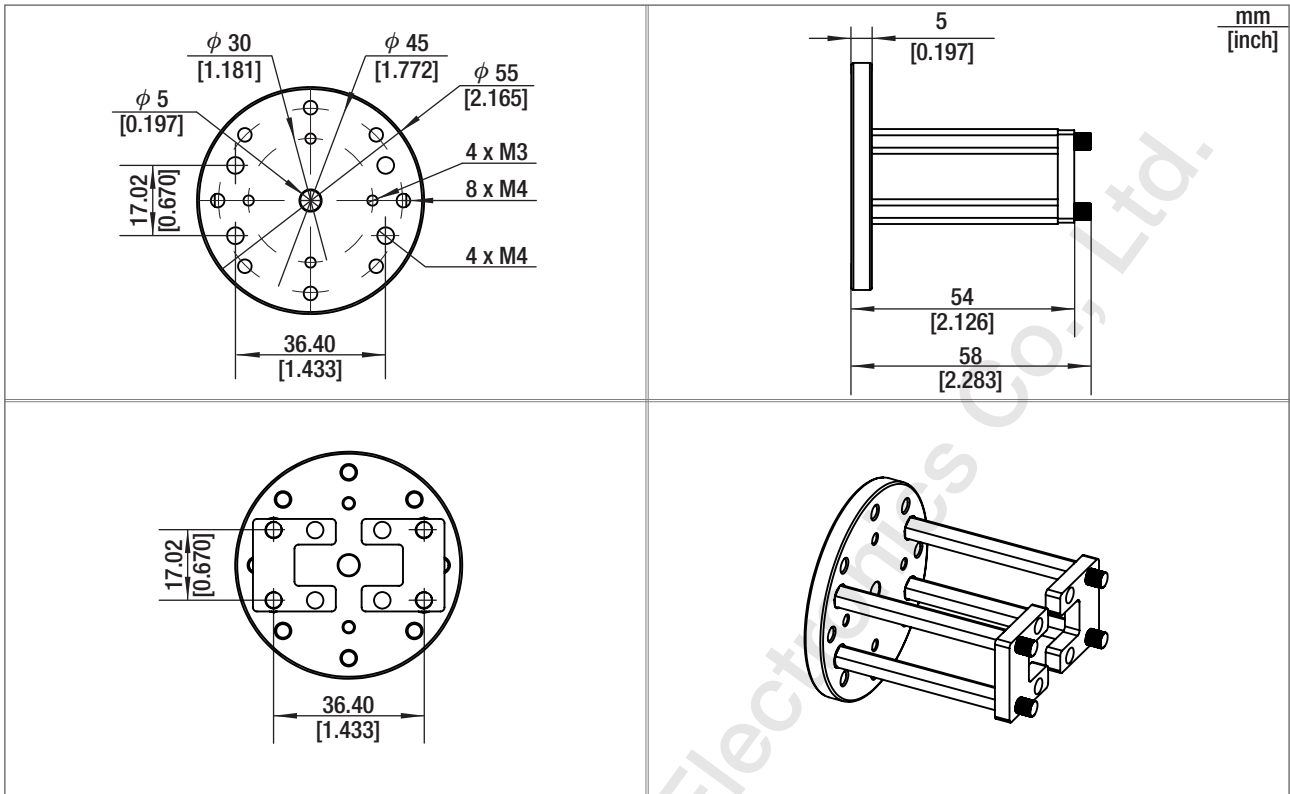
• Dimensional drawing: horn, HA-WR42-20



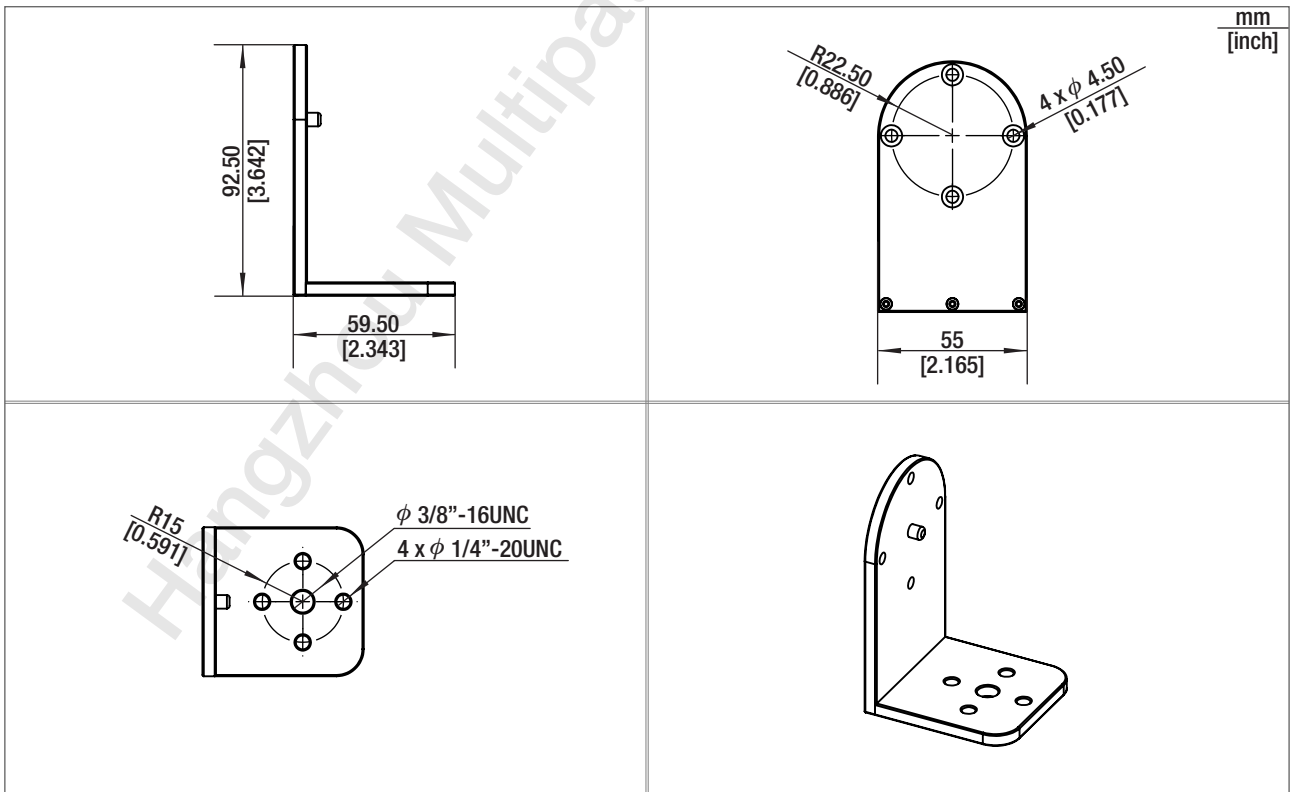
• Dimensional drawing: adapter, WR42-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

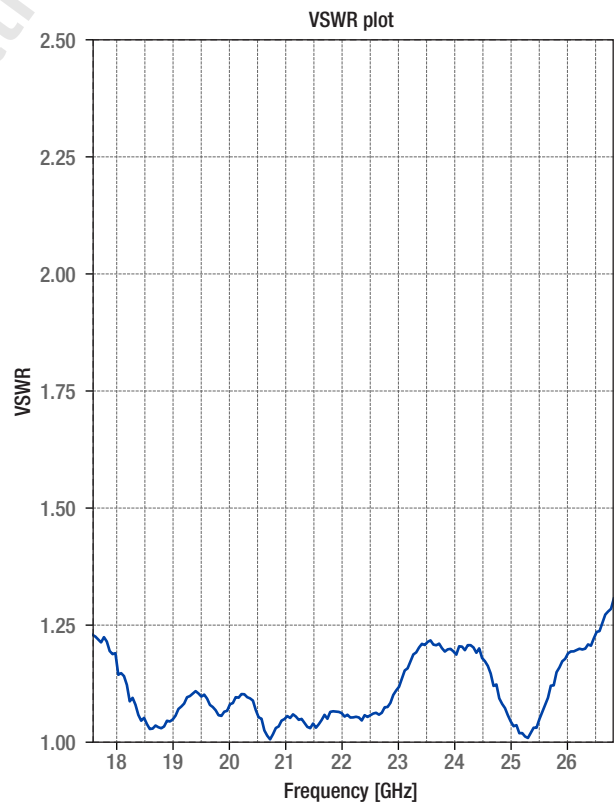
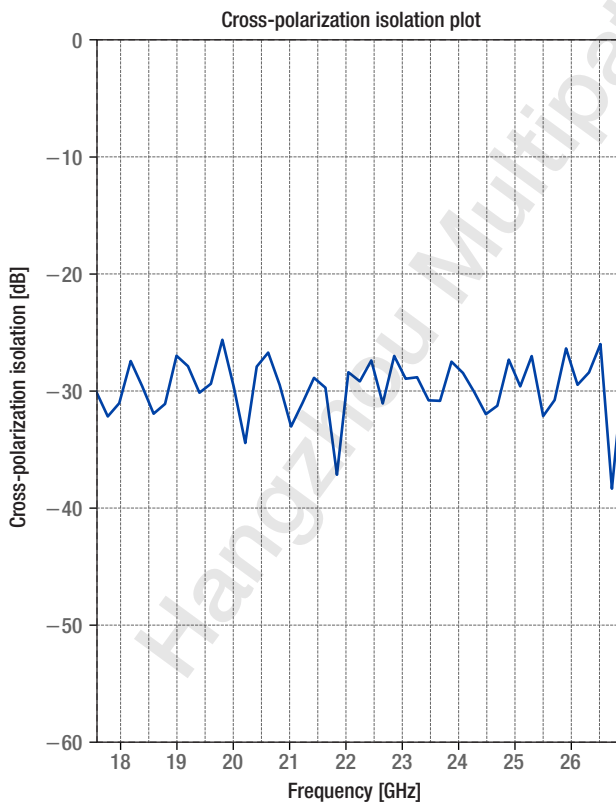
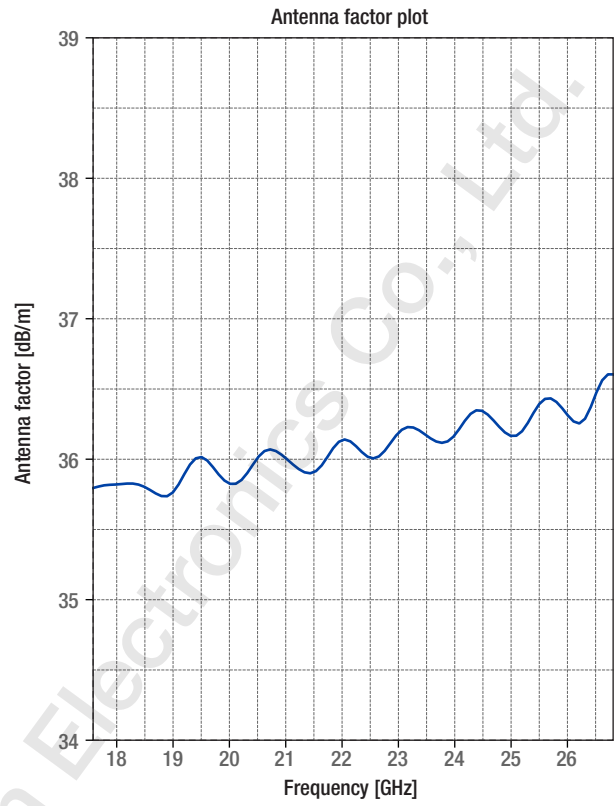
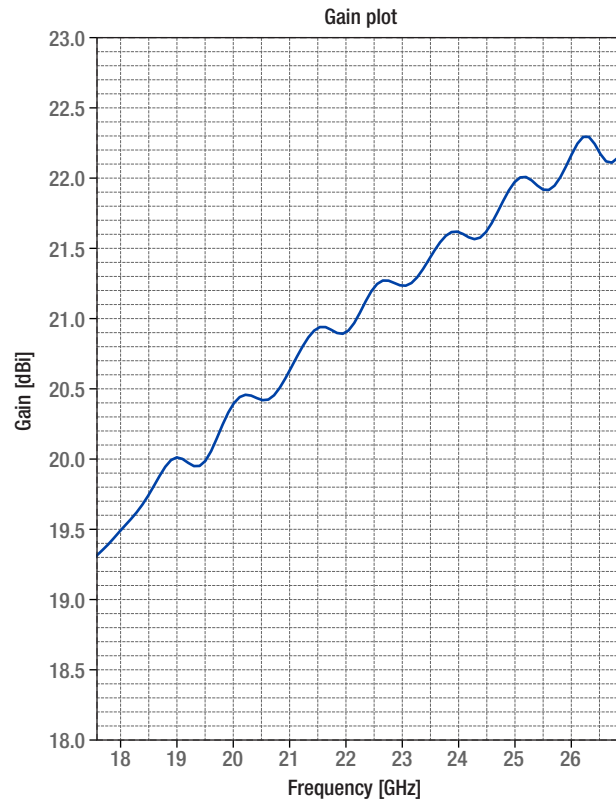


• Dimensional drawing: L type mounting bracket (Optional)



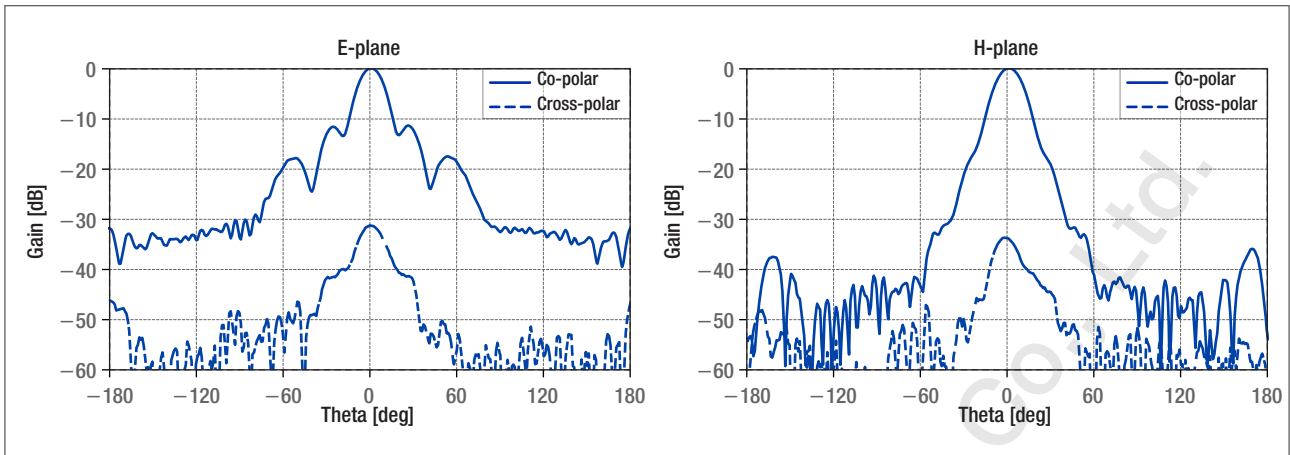
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

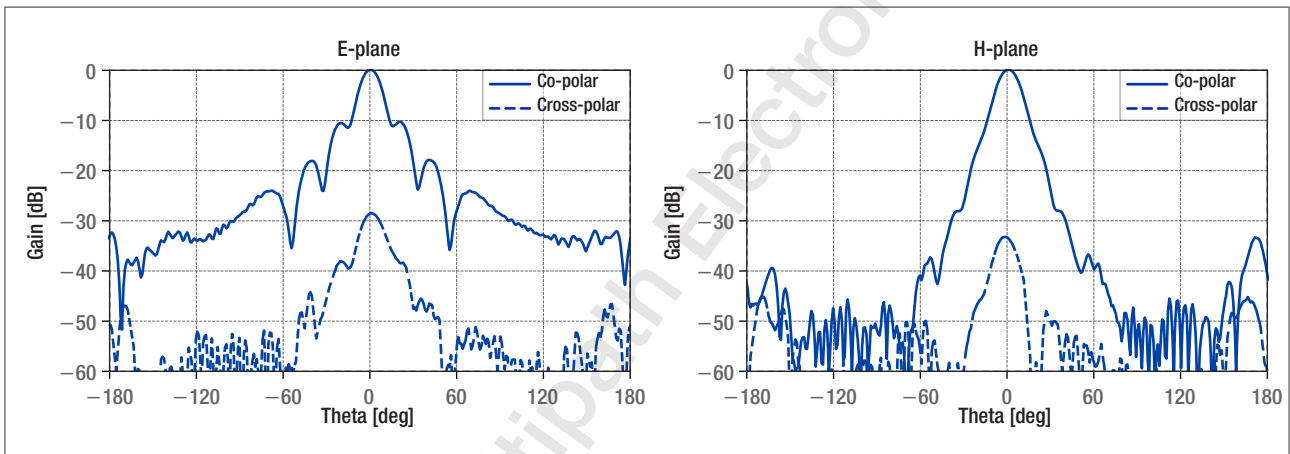


• Radiation patterns

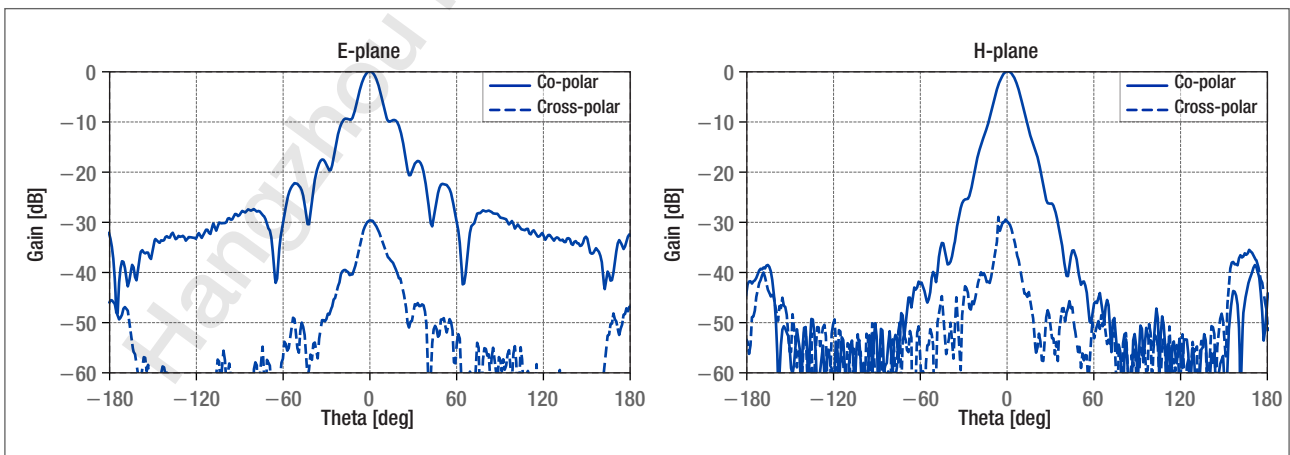
Patterns @ 18.0 GHz



Patterns @ 22.0 GHz



Patterns @ 26.0 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
17.6	19.32	35.78	-30.16	1.22
18.1	19.53	35.81	-29.34	1.14
18.6	19.81	35.77	-32.03	1.02
19.1	20.00	35.81	-27.55	1.06
19.6	20.06	35.98	-29.48	1.08
20.1	20.44	35.81	-32.14	1.09
20.6	20.42	36.04	-26.84	1.02
21.1	20.73	35.95	-32.11	1.05
21.6	20.94	35.94	-29.82	1.04
22.1	20.96	36.11	-28.89	1.04
22.6	21.27	36.01	-31.16	1.05
23.1	21.25	36.21	-28.99	1.15
23.6	21.54	36.11	-30.93	1.20
24.1	21.57	36.26	-29.39	1.19
24.6	21.75	36.26	-31.35	1.11
25.1	22.00	36.19	-28.42	1.01
25.6	21.94	36.42	-30.87	1.11
26.1	22.28	36.24	-29.05	1.19
26.6	22.10	36.59	-38.39	1.27

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
18.0	17.04°	18.58°
22.0	14.14°	15.73°
26.0	12.52°	13.78°



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.