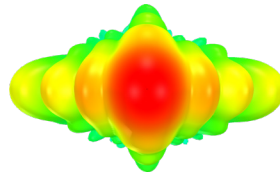
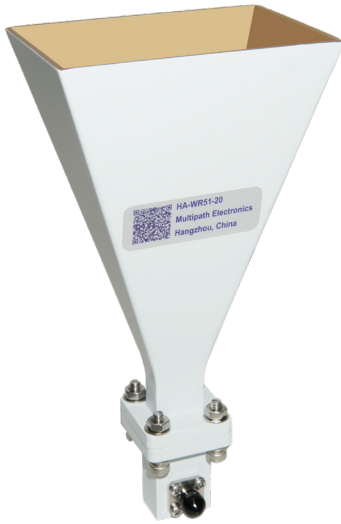




Standard Gain Horn Antennas

14.5 - 22.0 GHz, 20 dBi

Radiation pattern



QR code



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

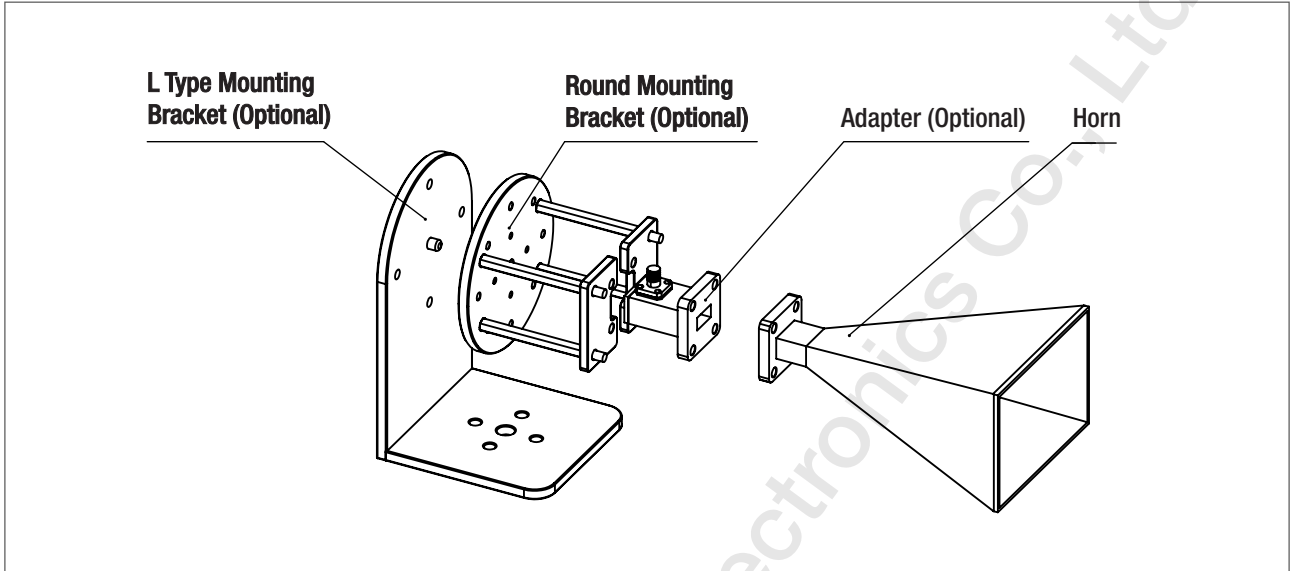
⚙️ Product specifications

Part number	HA-WR51-20	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	14.5 – 22.0	3dB beamwidth [deg]	E-plane: 15 Typ. H-plane: 17 Typ.
Waveguide band	WR51	Cross-polarization isolation [dB]	35 Typ.
Dimensions (H x W x L) [mm; inch]	85.0 x 59.5 x 185.93; 3.35 x 2.34 x 7.32	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.17; 0.375	Impedance [Ohms]	50
Material	Aluminum	RF connector	SMA-Female

Outline dimensions

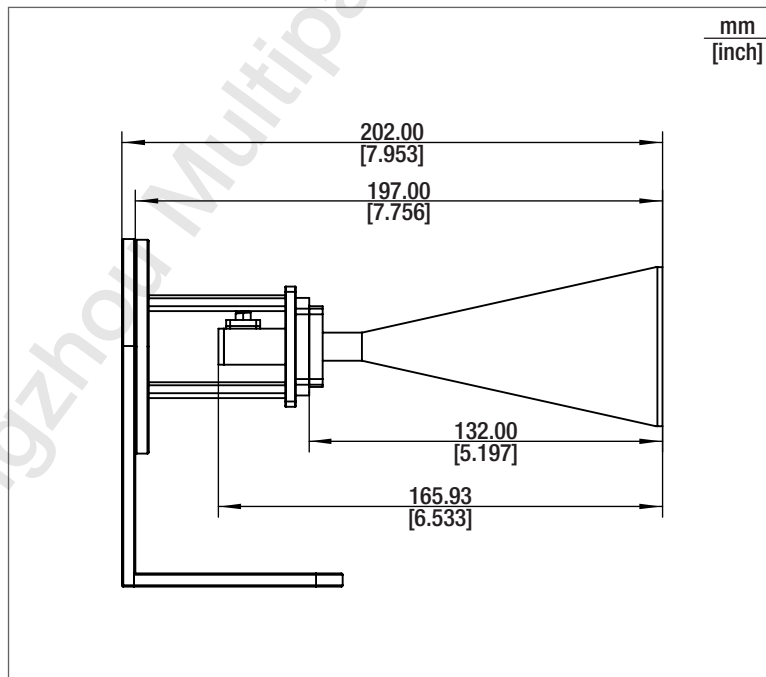
• Assembly dimensional drawing

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.

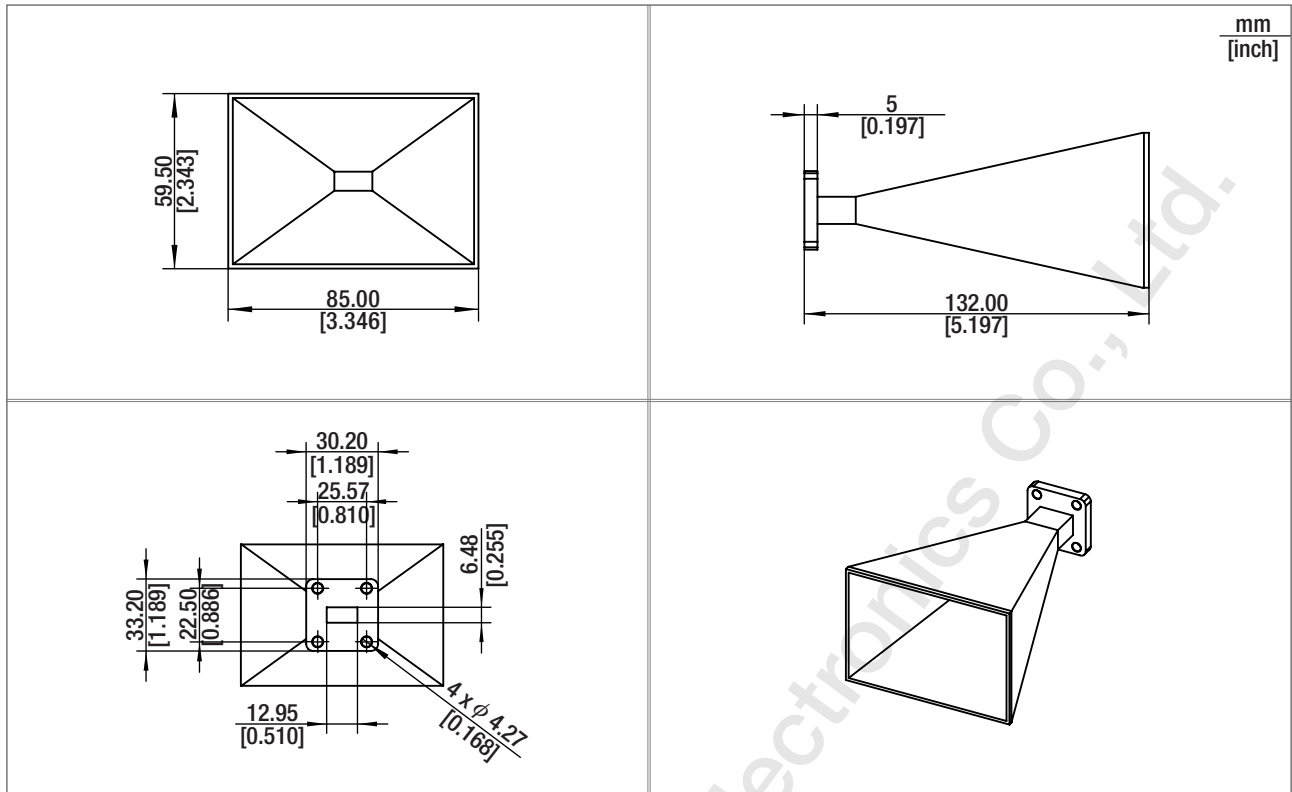


Side view of the mounting system.

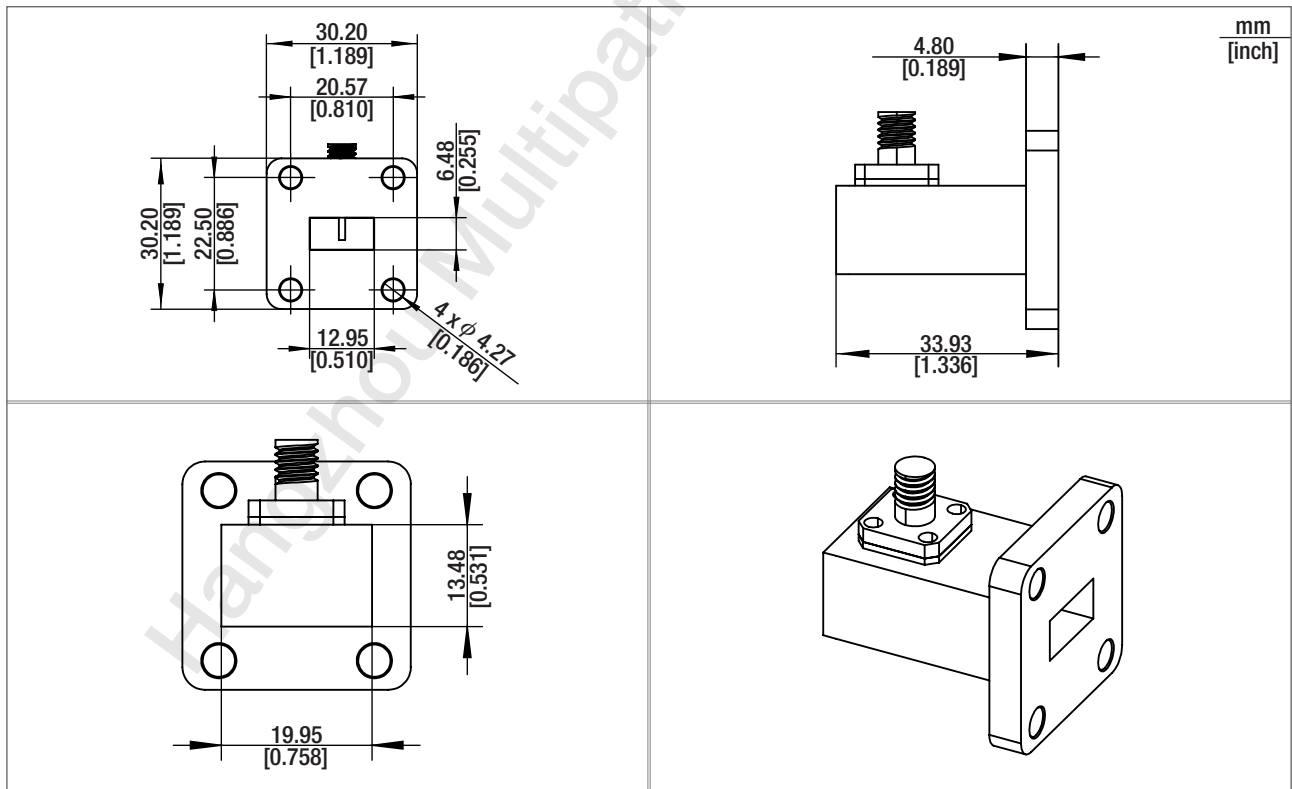
Detailed dimensions of the components will be given in subsequent diagrams.



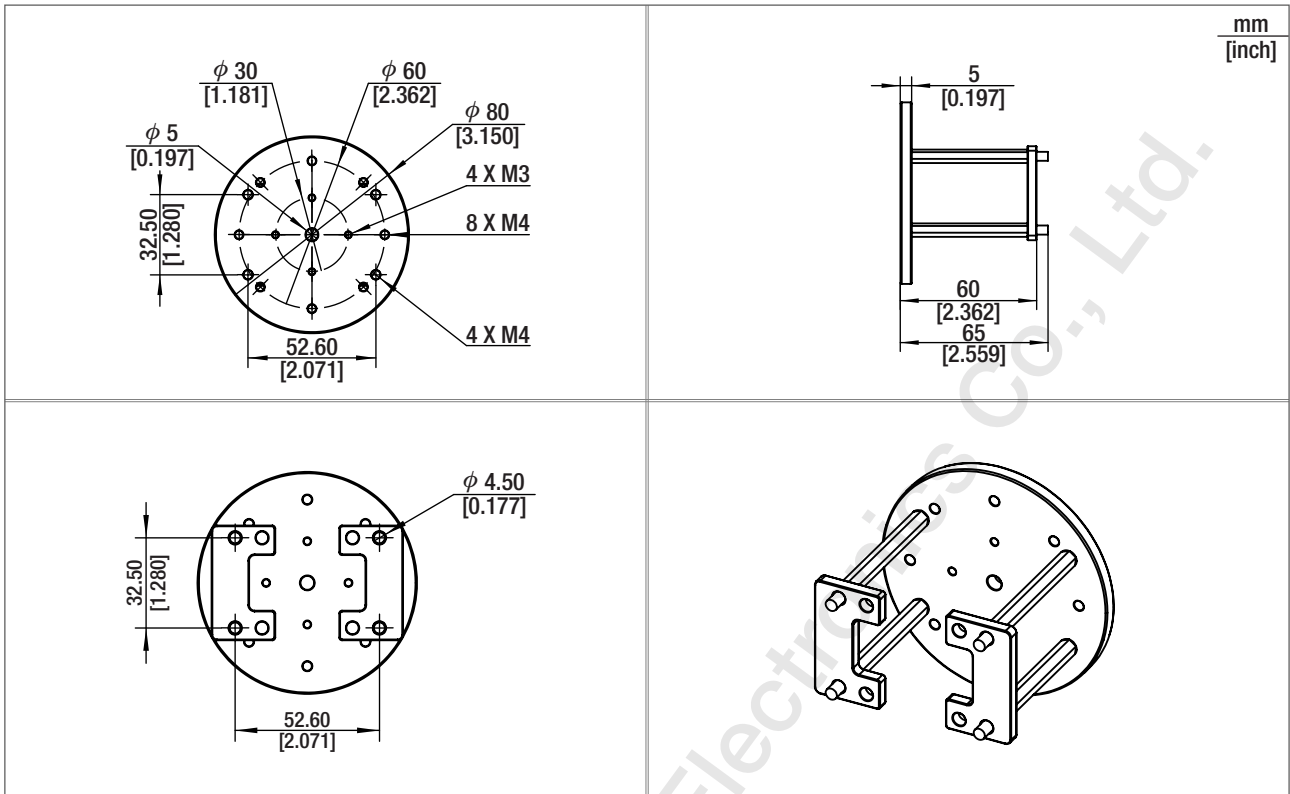
• Dimensional drawing: horn, HA-WR51-20



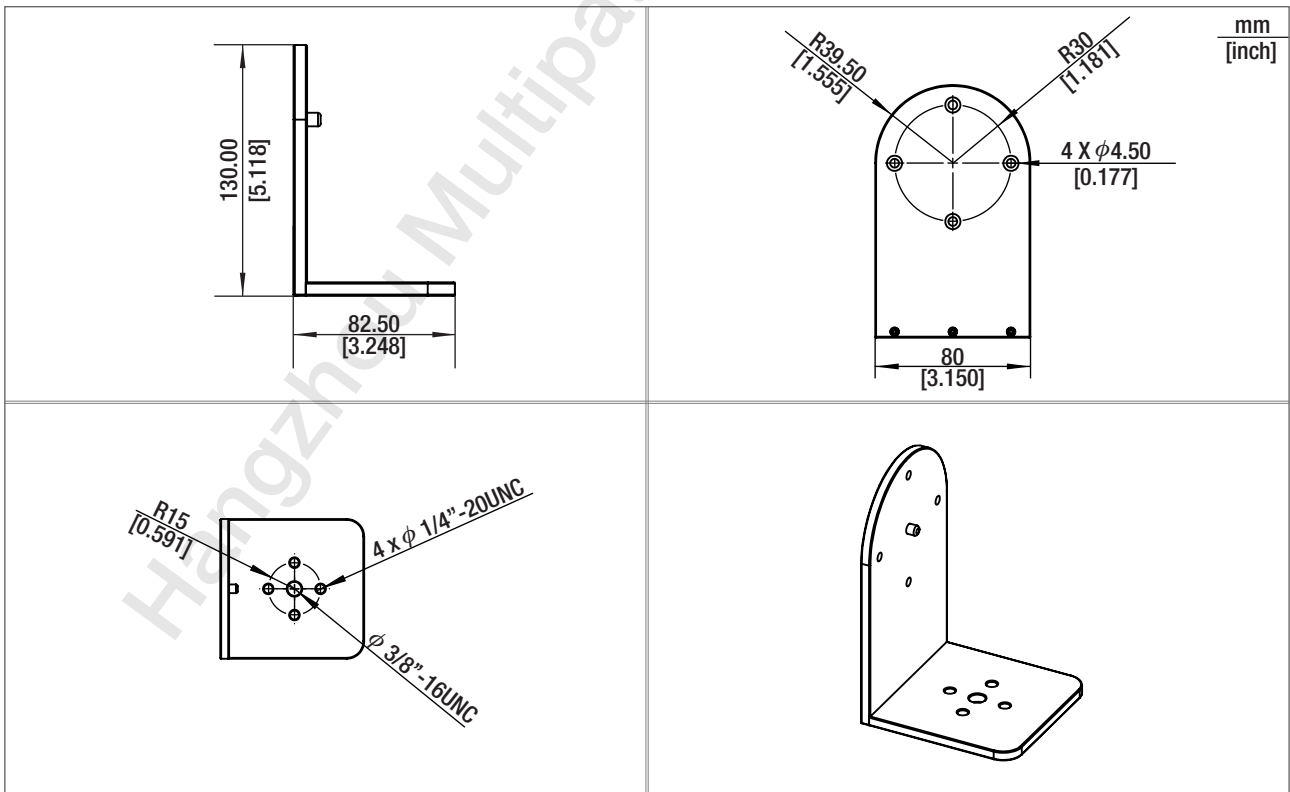
• Dimensional drawing: adapter, WR51-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

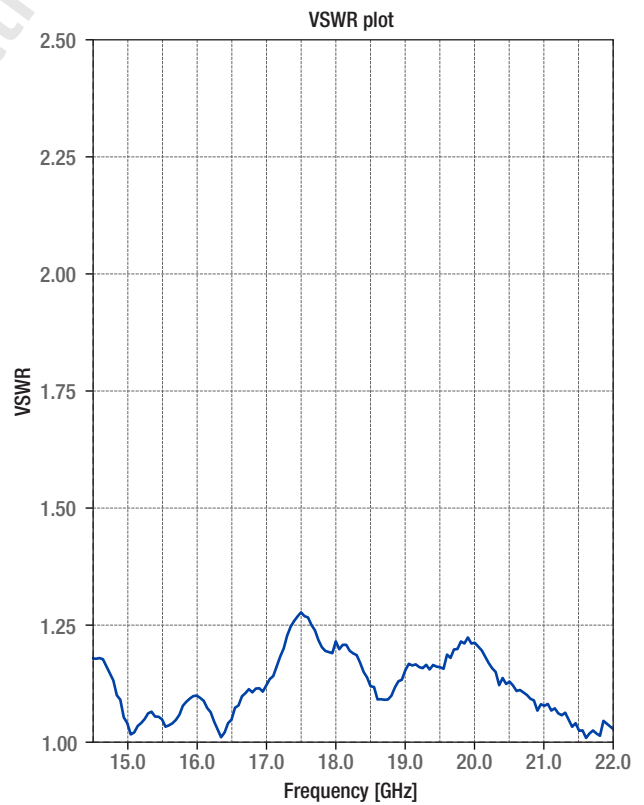
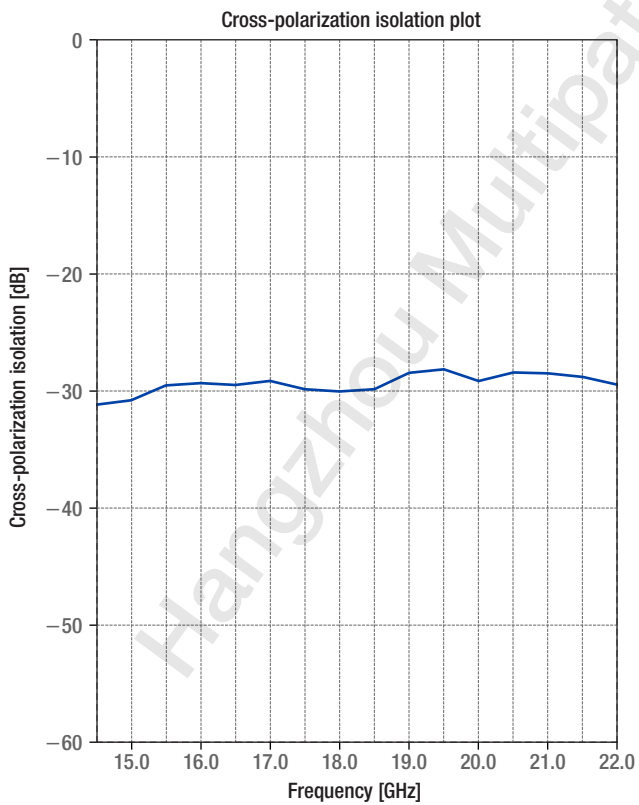
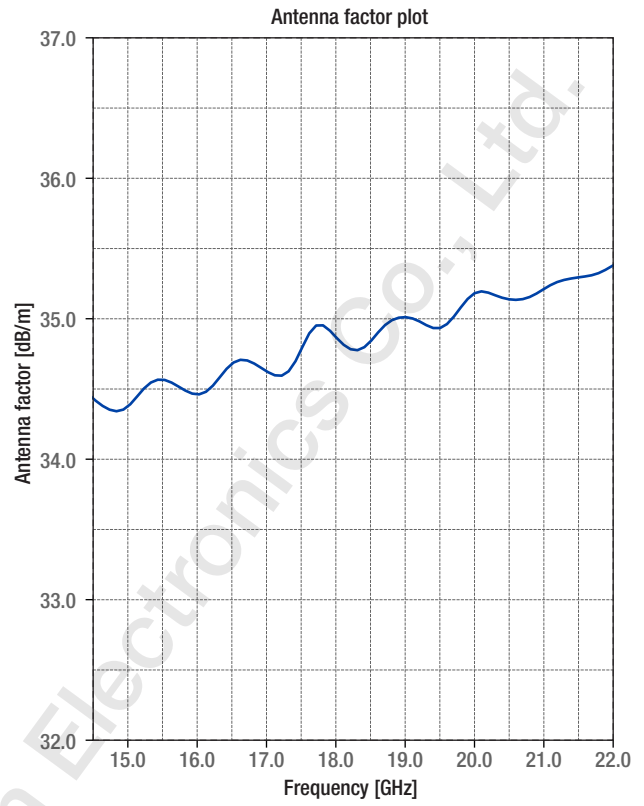
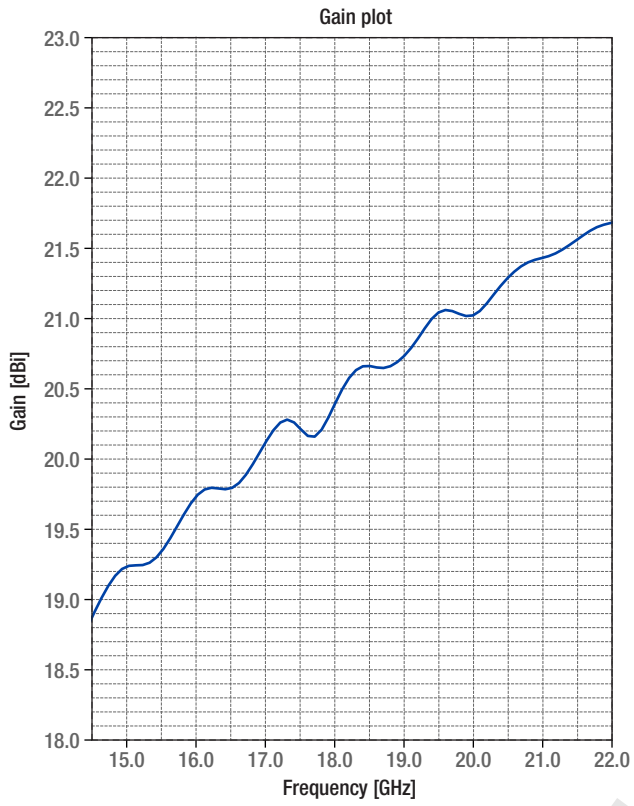


• Dimensional drawing: L type mounting bracket (Optional)



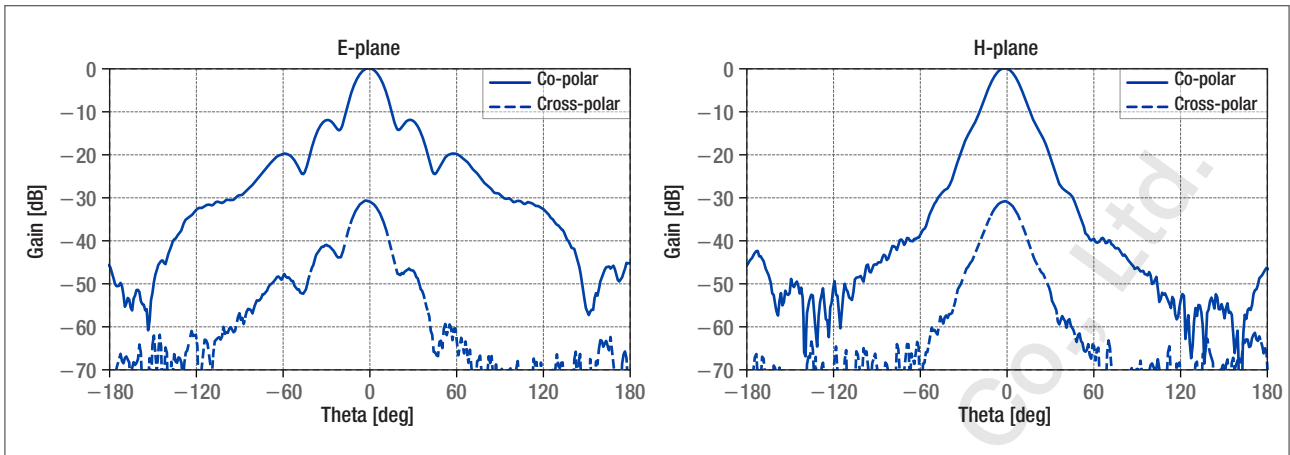
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

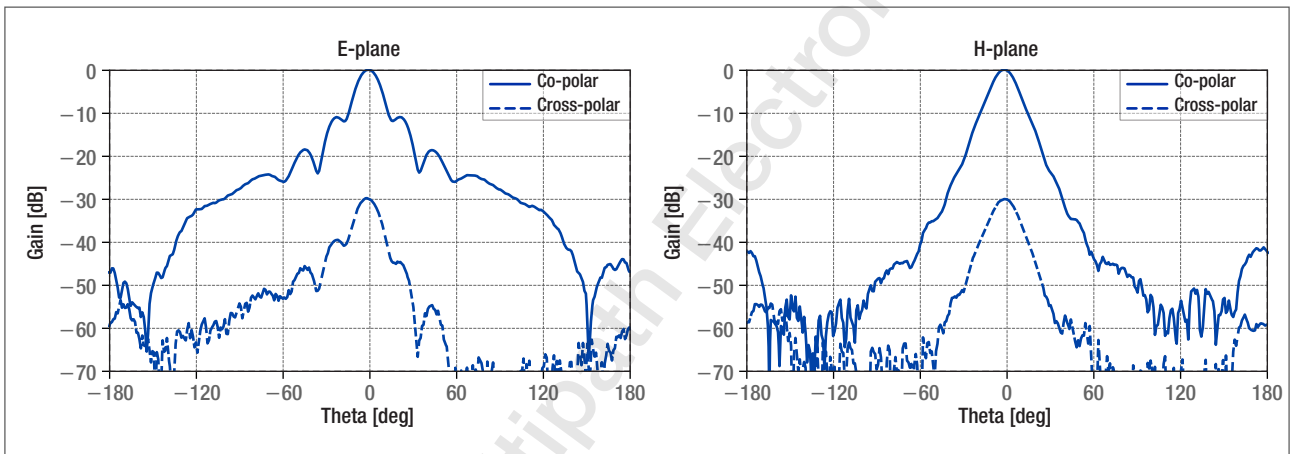


• Radiation patterns

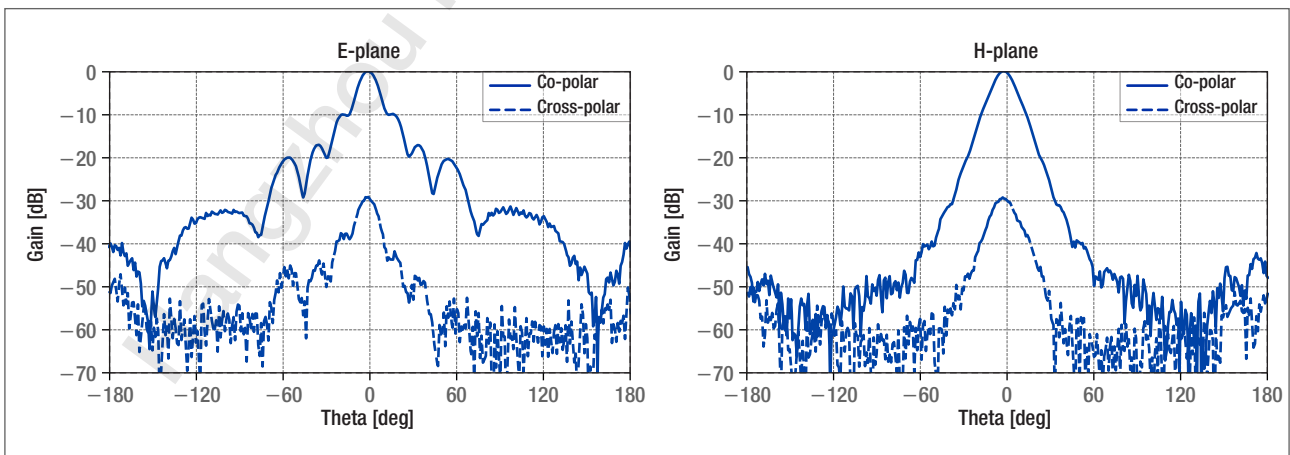
Patterns @ 15.0 GHz



Patterns @ 18.5 GHz



Patterns @ 22.0 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
14.5	18.98	34.43	-31.17	1.17
15.0	19.30	34.41	-30.82	1.03
15.5	19.42	34.58	-29.60	1.04
16.0	19.79	34.48	-29.41	1.09
16.5	19.84	34.70	-29.56	1.04
17.0	20.17	34.63	-29.23	1.11
17.5	20.24	34.81	-29.91	1.26
18.0	20.43	34.87	-30.09	1.20
18.5	20.68	34.85	-29.91	1.11
19.0	20.75	35.01	-28.57	1.14
19.5	21.05	34.94	-28.28	1.15
20.0	21.03	35.18	-29.24	1.20
20.5	21.29	35.14	-28.54	1.12
21.0	21.43	35.20	-28.61	1.07
21.5	21.55	35.29	-28.91	1.02
22.0	21.67	35.37	-29.54	1.02

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
15.0	18.09°	18.13°
18.5	14.94°	15.77°
22.0	12.88°	14.33°



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