

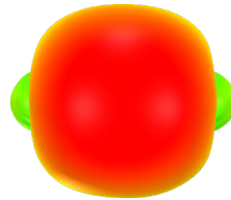


# Standard Gain Horn Antennas

14.5 - 22.0 GHz, 10 dBi



Radiation pattern



QR code



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

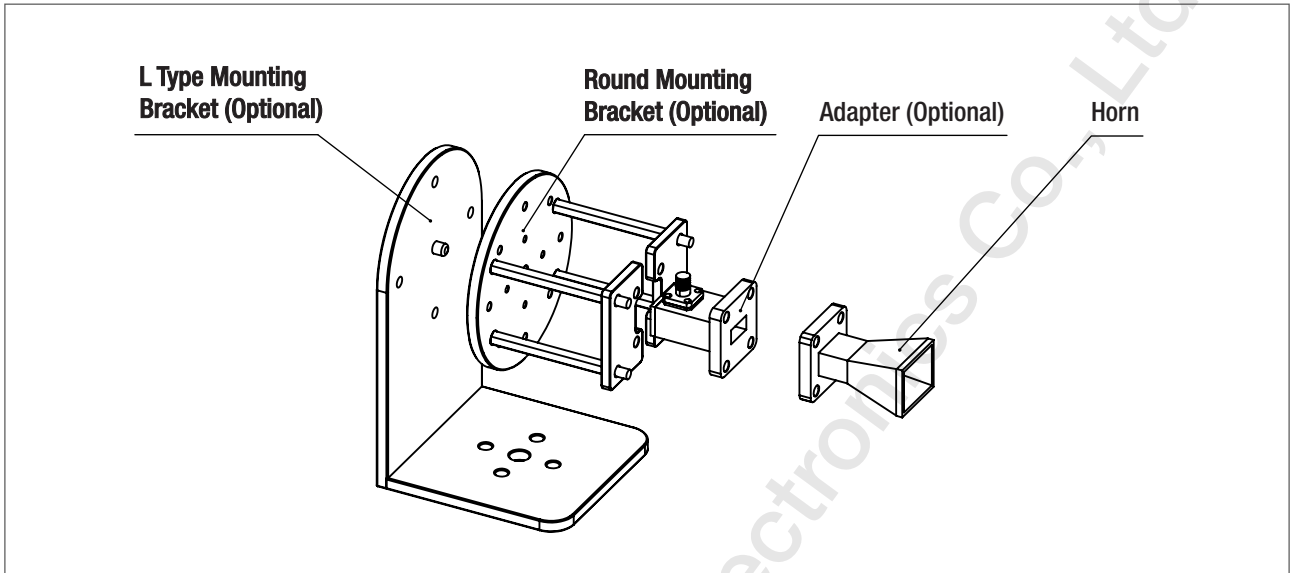
## ⚙️ Product specifications

Part number	HA-WR51-10	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	10 Typ.
Frequency range [GHz]	14.5 – 22.0	3dB beamwidth [deg]	E-plane: 49 Typ. H-plane: 43 Typ.
Waveguide band	WR51	Cross-polarization isolation [dB]	35 Typ.
Dimensions (H x W x L) [mm; inch]	30.2 x 30.2 x 78.63; 1.19 x 1.19 x 3.10	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.07; 0.154	Impedance [Ohms]	50
Material	Aluminum	RF connector	SMA-Female

Outline dimensions

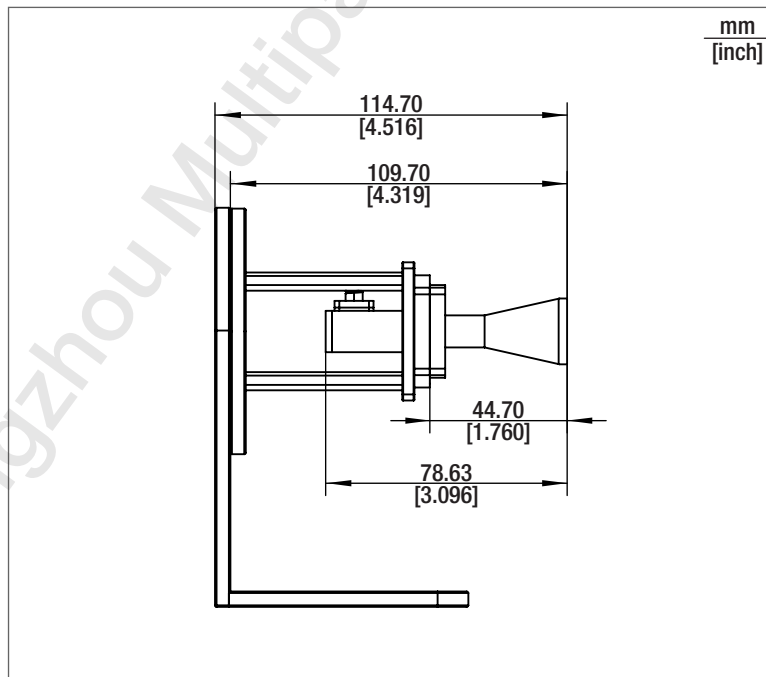
• Assembly dimensional drawing

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.

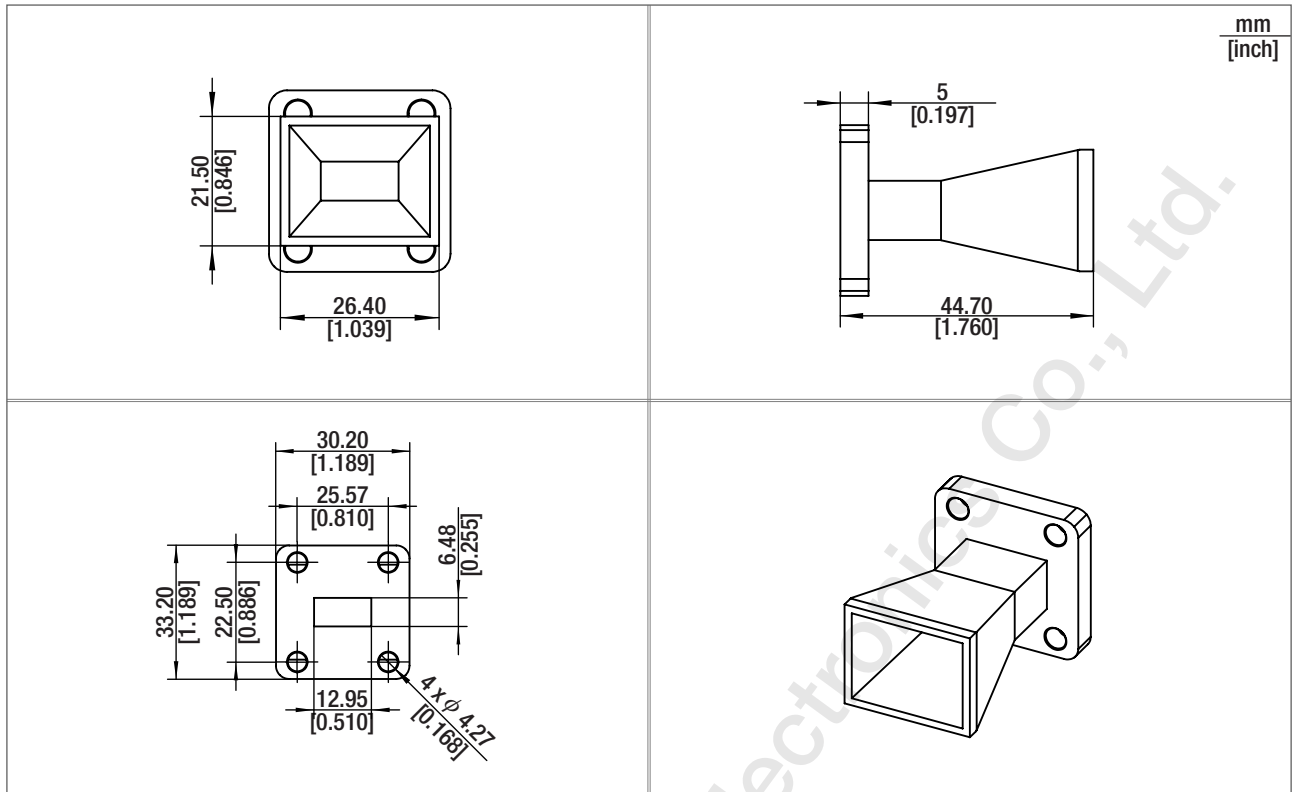


Side view of the mounting system.

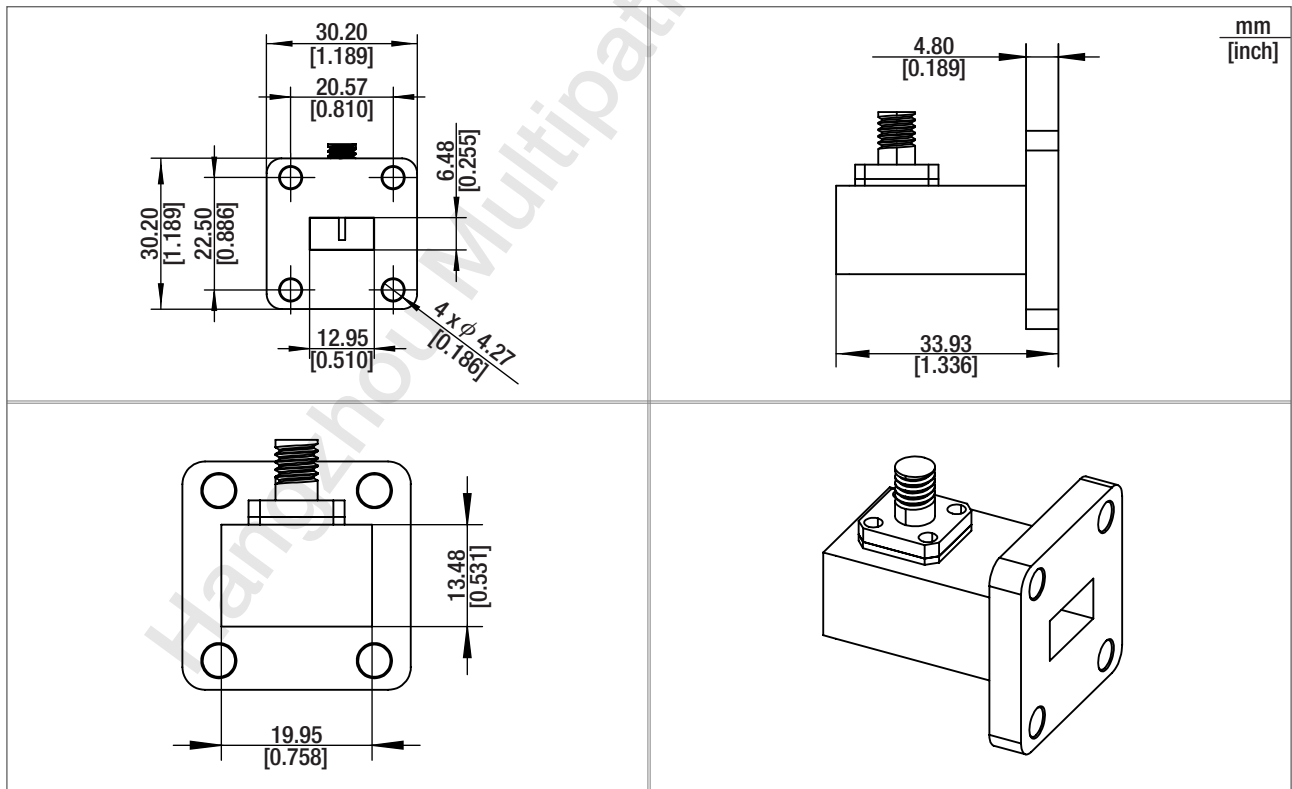
Detailed dimensions of the components will be given in subsequent diagrams.



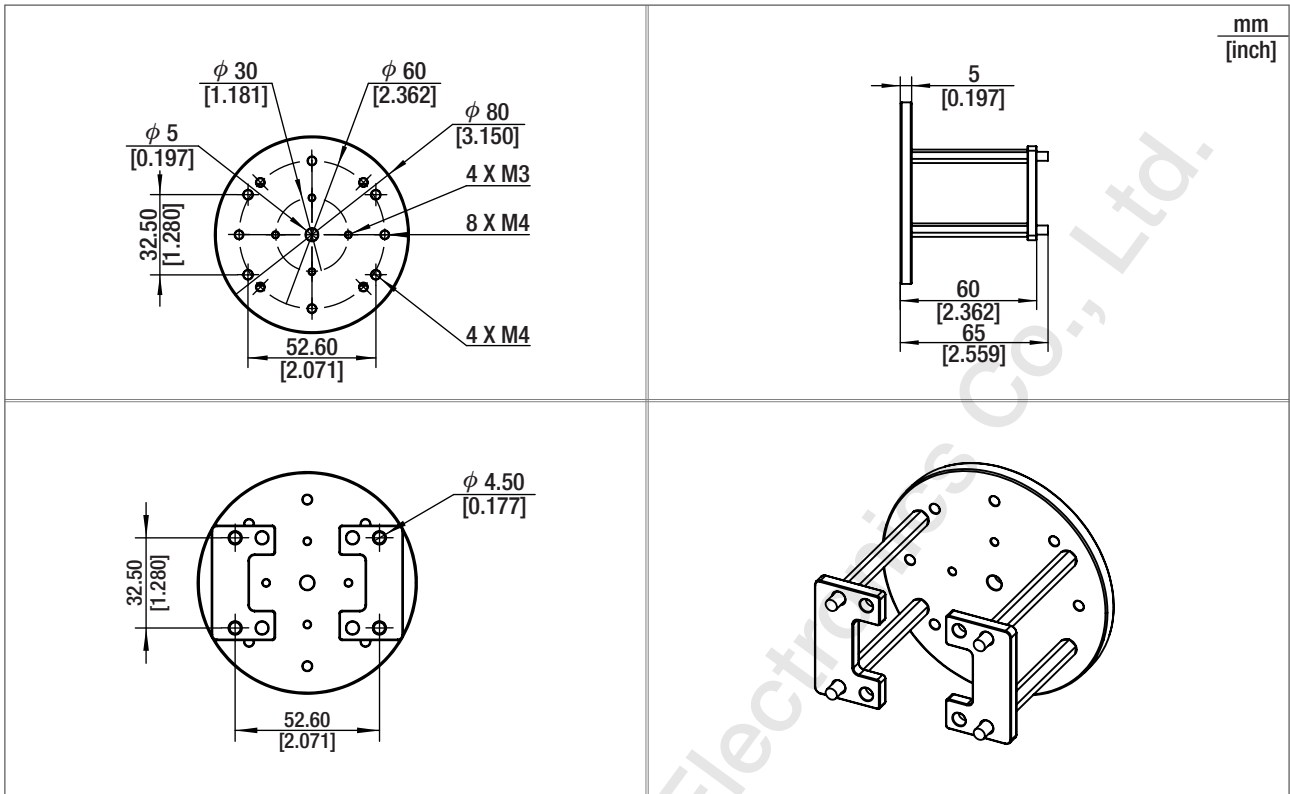
• Dimensional drawing: horn, HA-WR51-10



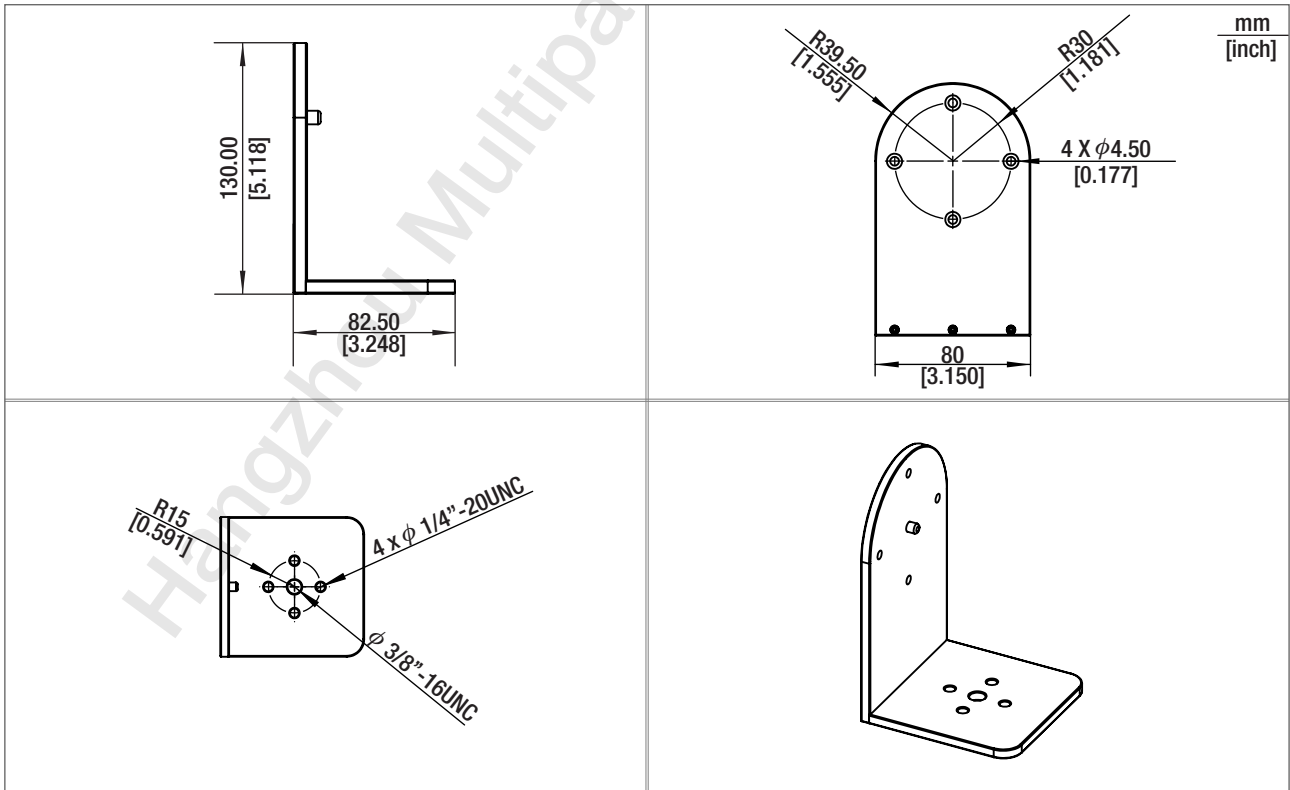
• Dimensional drawing: adapter, WR51-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

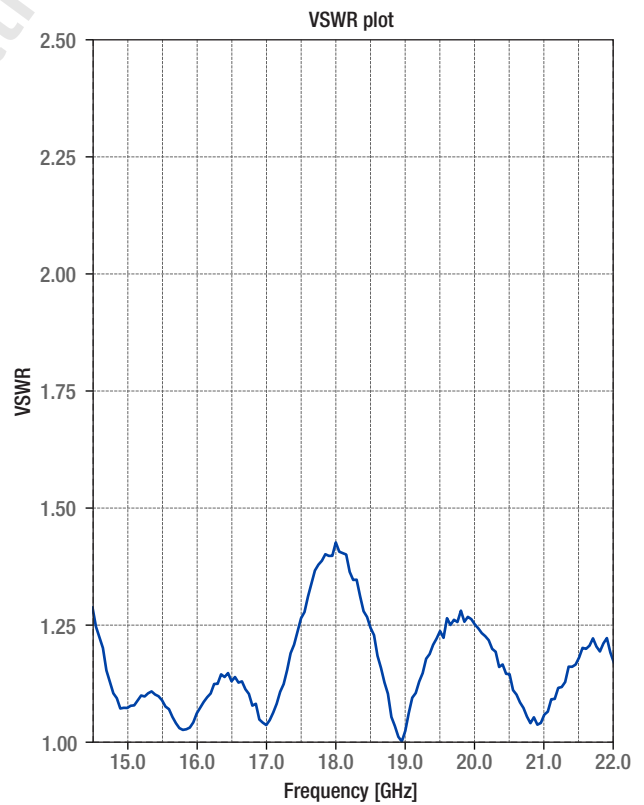
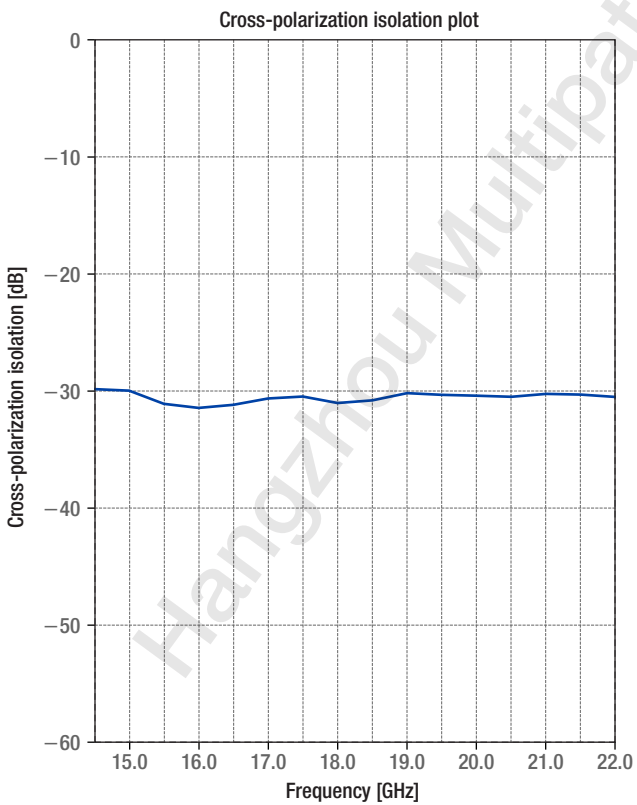
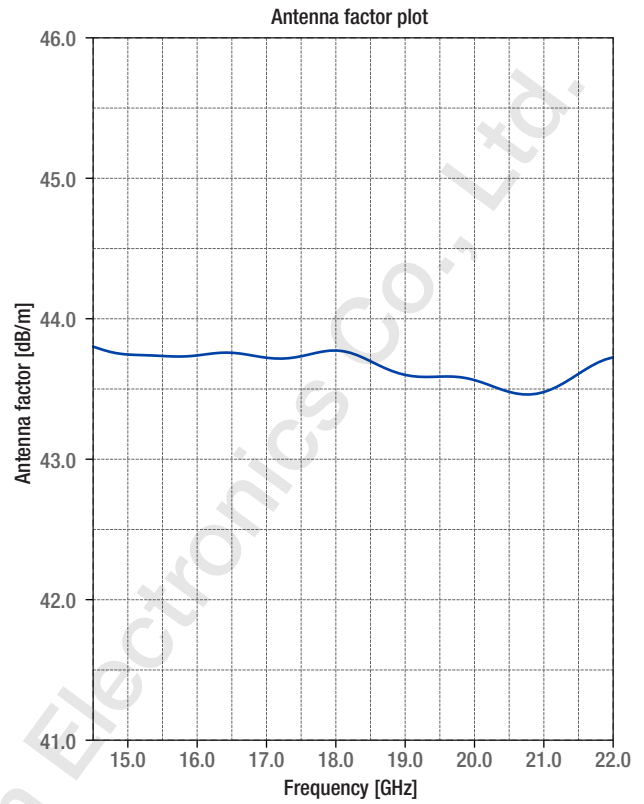
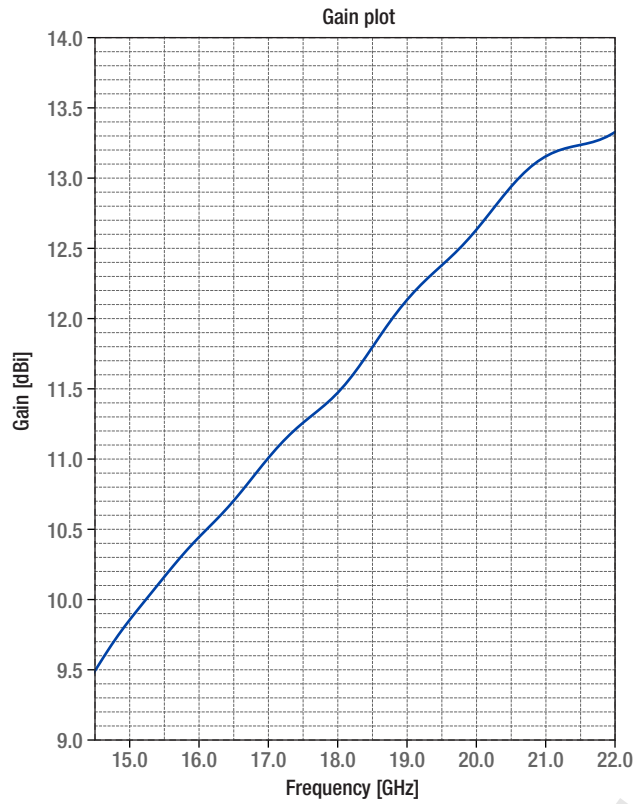


• Dimensional drawing: L type mounting bracket (Optional)



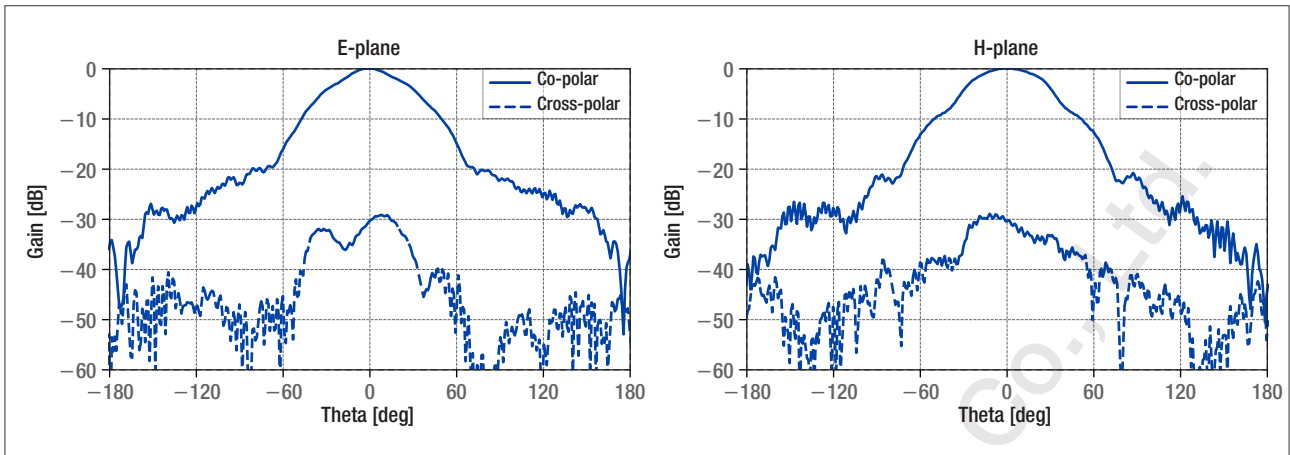
## Electrical characteristics

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

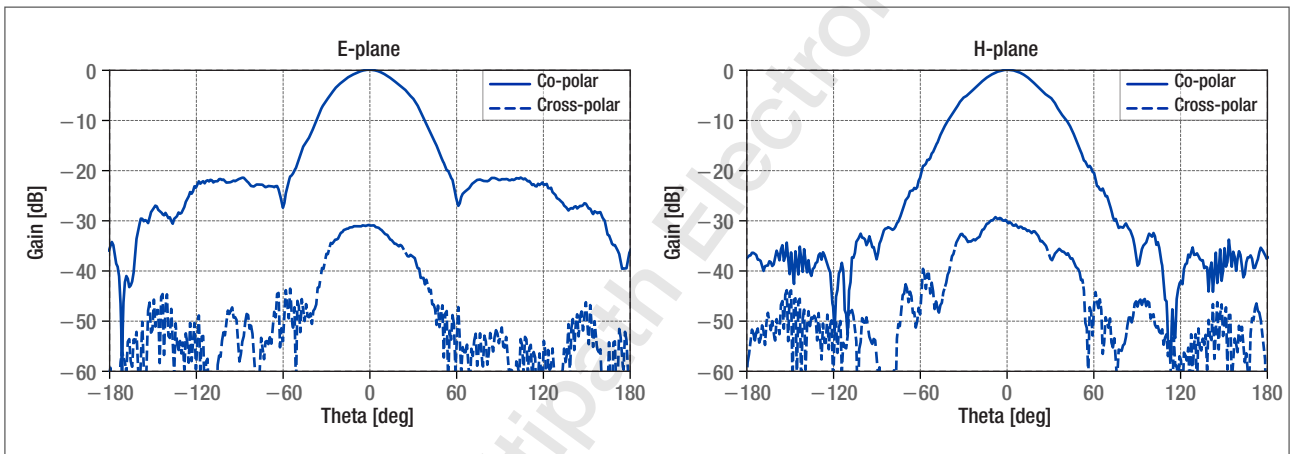


## • Radiation patterns

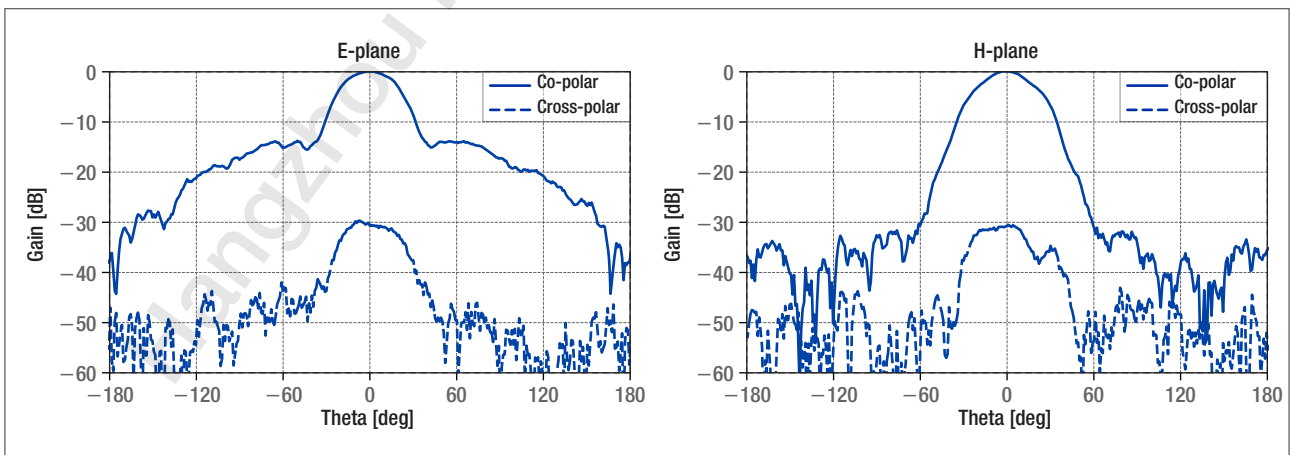
Patterns @ 15.0 GHz



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	9.63	43.78	-29.98	1.27
15.0	9.98	43.73	-30.10	1.07
15.5	10.27	43.72	-31.18	1.08
16.0	10.54	43.73	-31.51	1.06
16.5	10.79	43.75	-31.26	1.12
17.0	11.09	43.71	-30.74	1.03
17.5	11.33	43.73	-30.58	1.25
18.0	11.53	43.76	-31.11	1.41
18.5	11.85	43.69	-30.89	1.23
19.0	12.17	43.59	-30.30	1.02
19.5	12.41	43.58	-30.44	1.23
20.0	12.65	43.56	-30.51	1.24
20.5	12.95	43.48	-30.60	1.14
21.0	13.16	43.48	-30.37	1.05
21.5	13.24	43.60	-30.42	1.17
22.0	13.32	43.71	-30.62	1.16

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
15.0	48.61°	52.36°
18.5	42.17°	40.25°
22.0	39.24°	39.17°



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