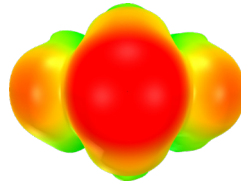




# Standard Gain Horn Antennas

14.5 - 22.0 GHz, 15 dBi

Radiation pattern



QR code



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

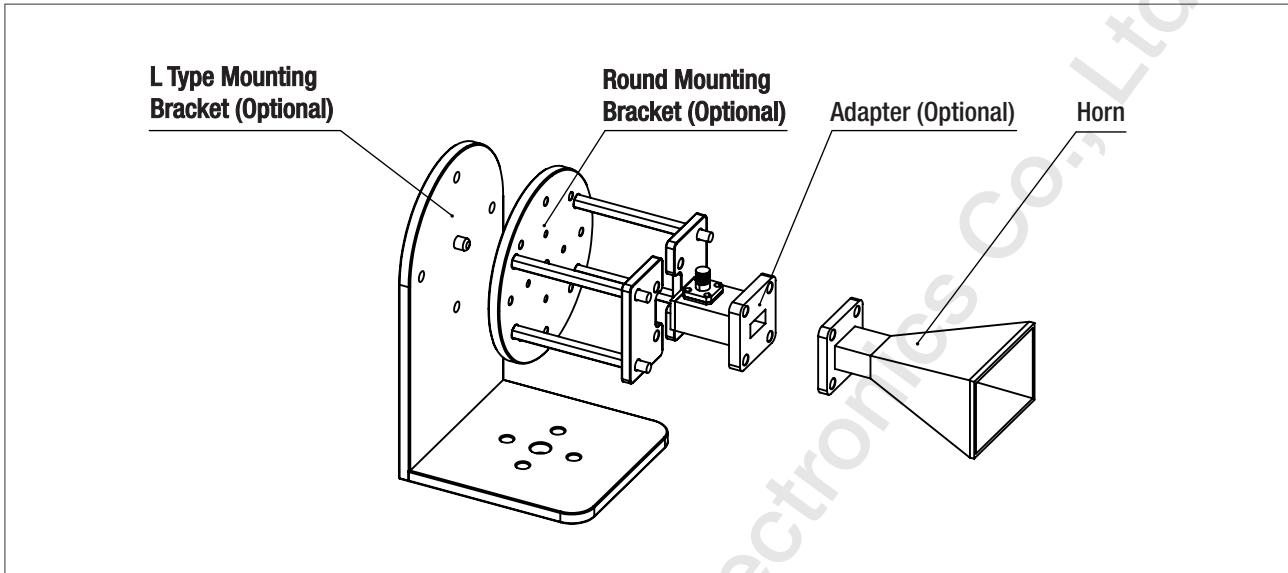
## ⚙️ Product specifications

Part number	HA-WR51-15	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	15 Typ.
Frequency range [GHz]	14.5 – 22.0	3dB beamwidth [deg]	E-plane: 26 Typ. H-plane: 28 Typ.
Waveguide band	WR51	Cross-polarization isolation [dB]	40 Typ.
Dimensions (H x W x L) [mm; inch]	51.3 x 35.6 x 98.93; 2.02 x 1.40 x 3.90	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.09; 0.198	Impedance [Ohms]	50
Material	Aluminum	RF connector	SMA-Female

## Outline dimensions

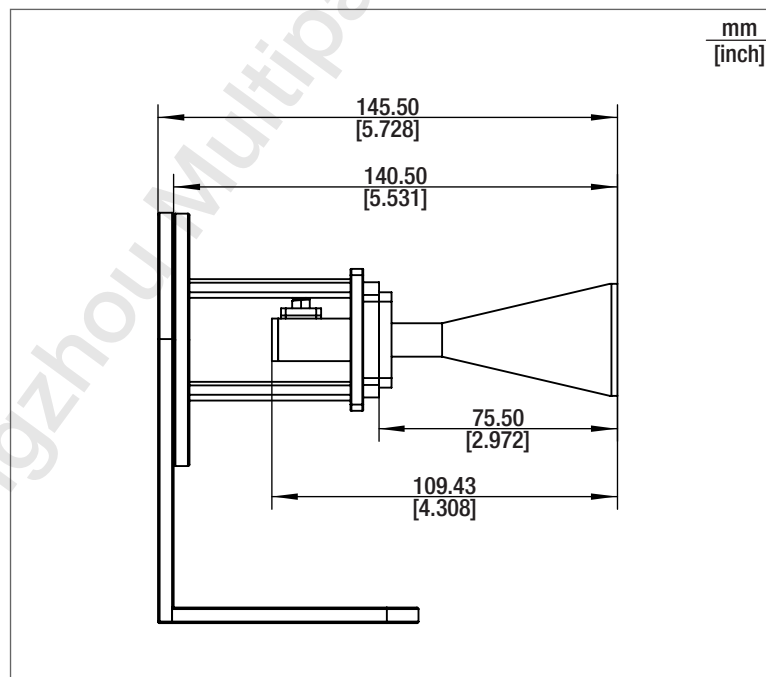
### • Assembly dimensional drawing

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.

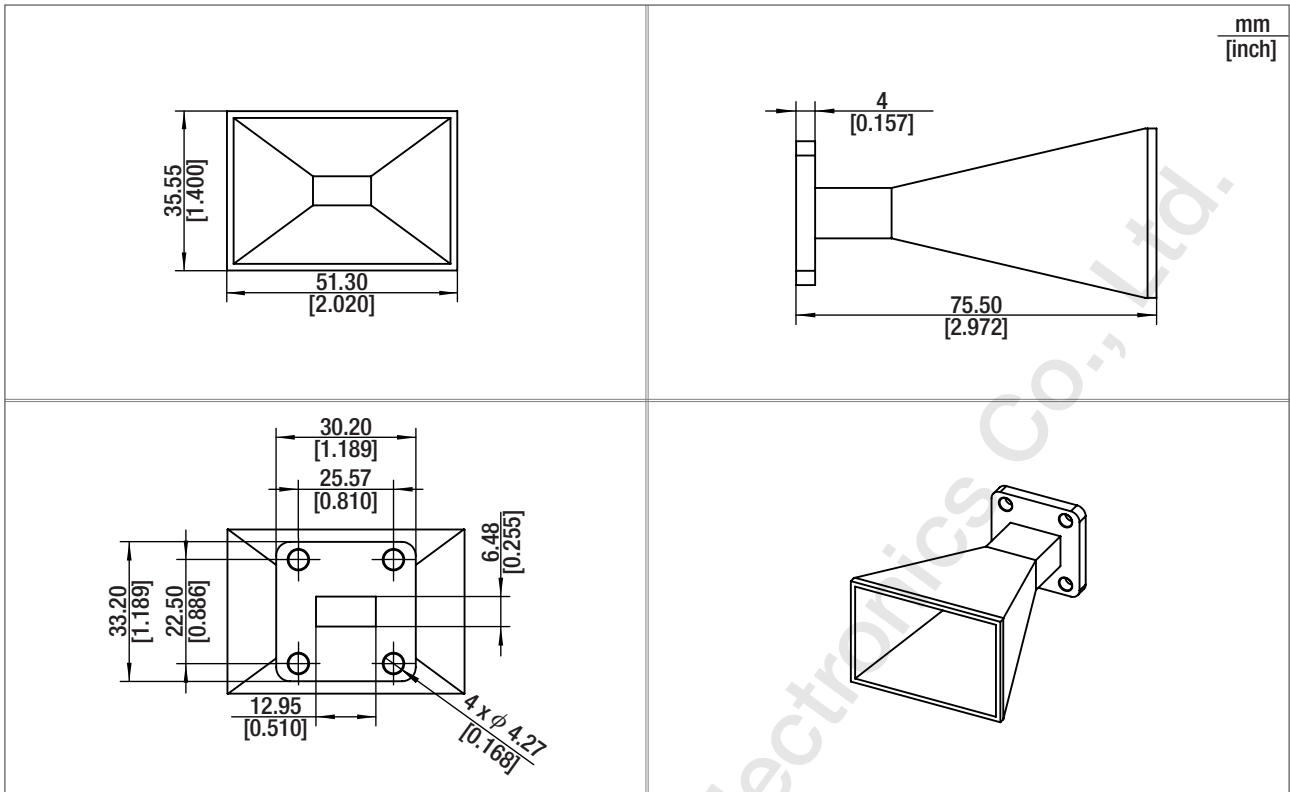


Side view of the mounting system.

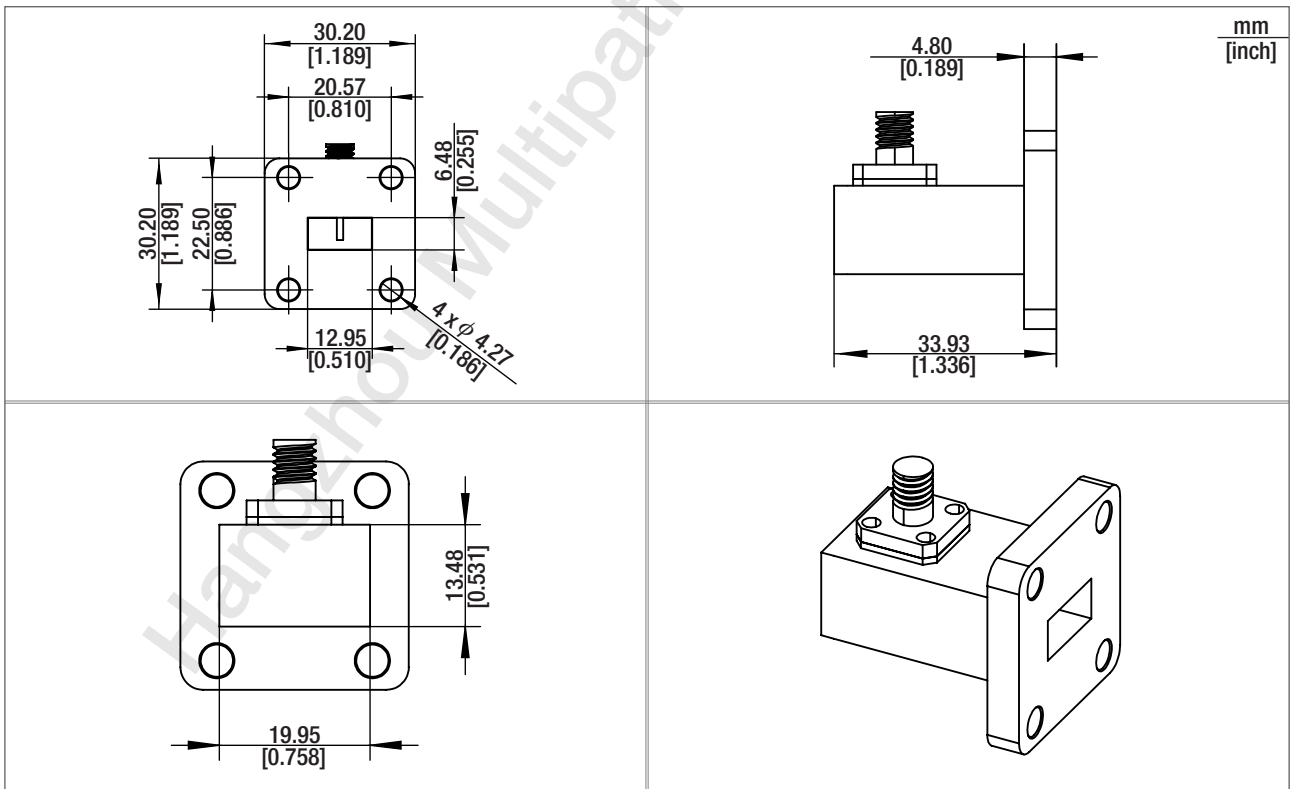
Detailed dimensions of the components will be given in subsequent diagrams.



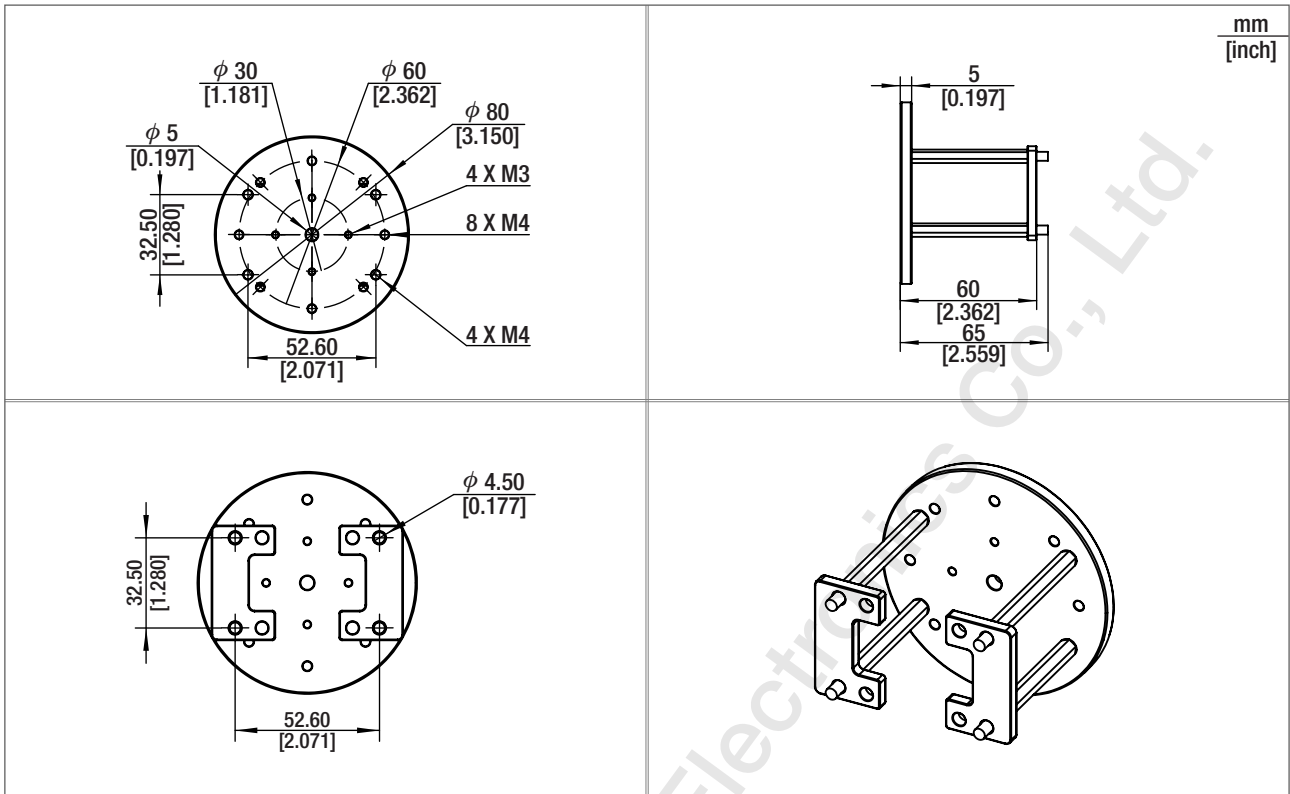
• Dimensional drawing: horn, HA-WR51-15



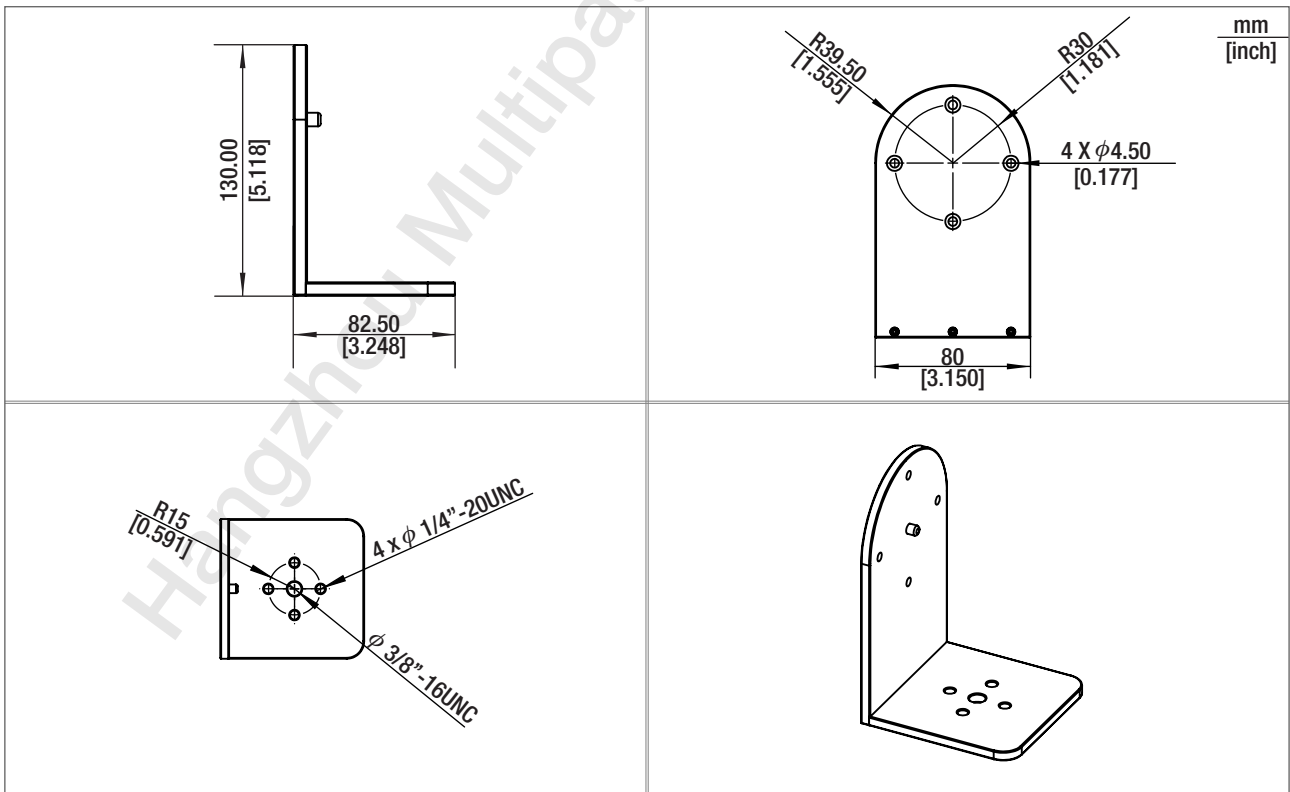
• Dimensional drawing: adapter, WR51-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

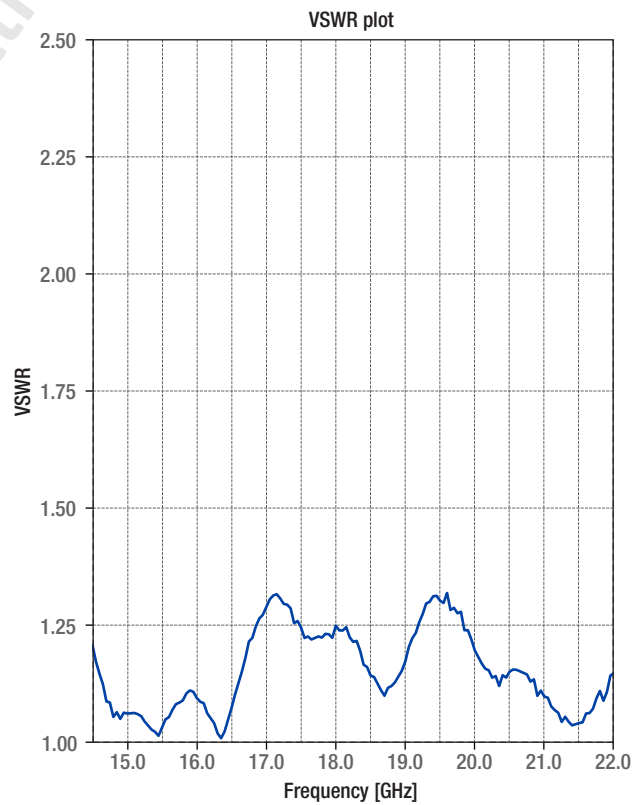
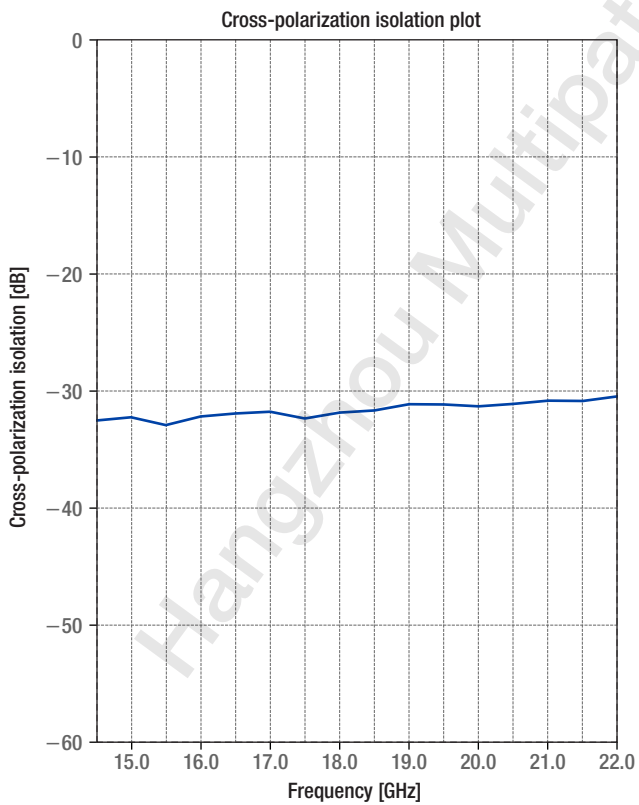
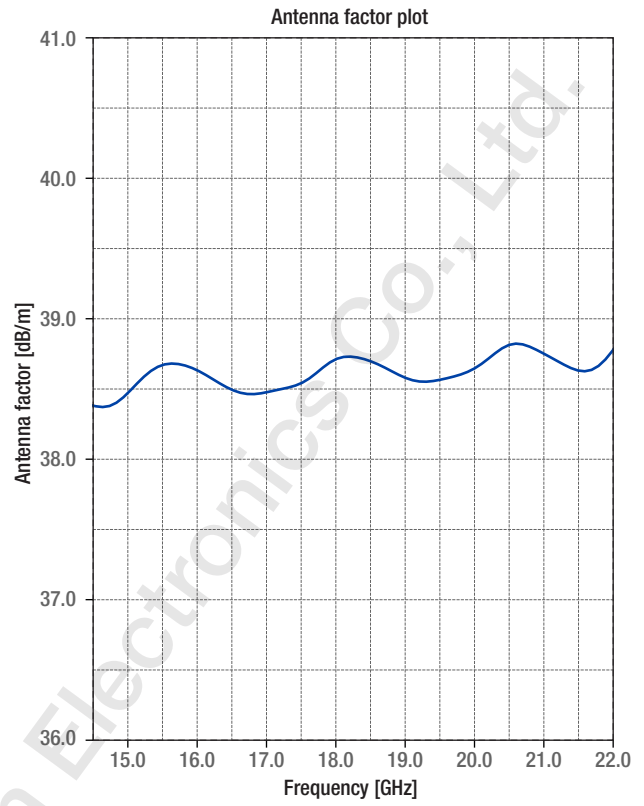
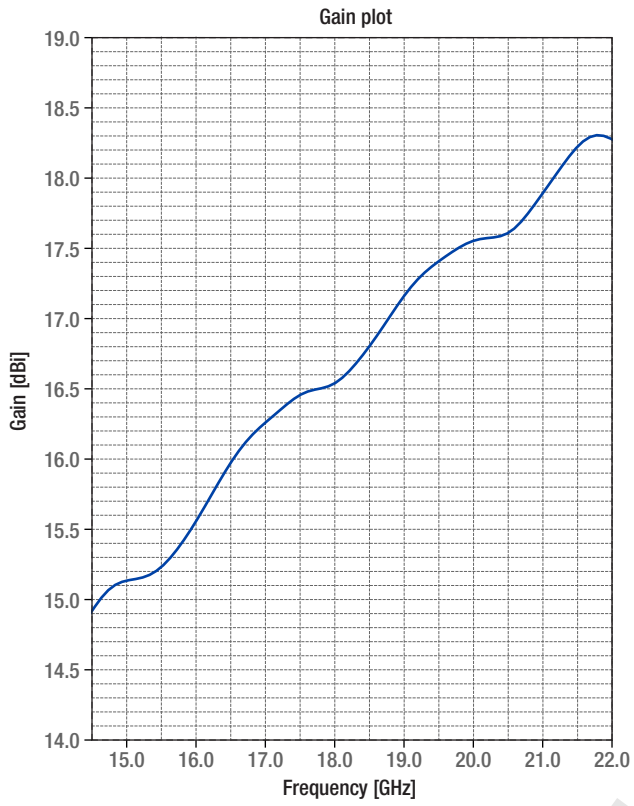


• Dimensional drawing: L type mounting bracket (Optional)



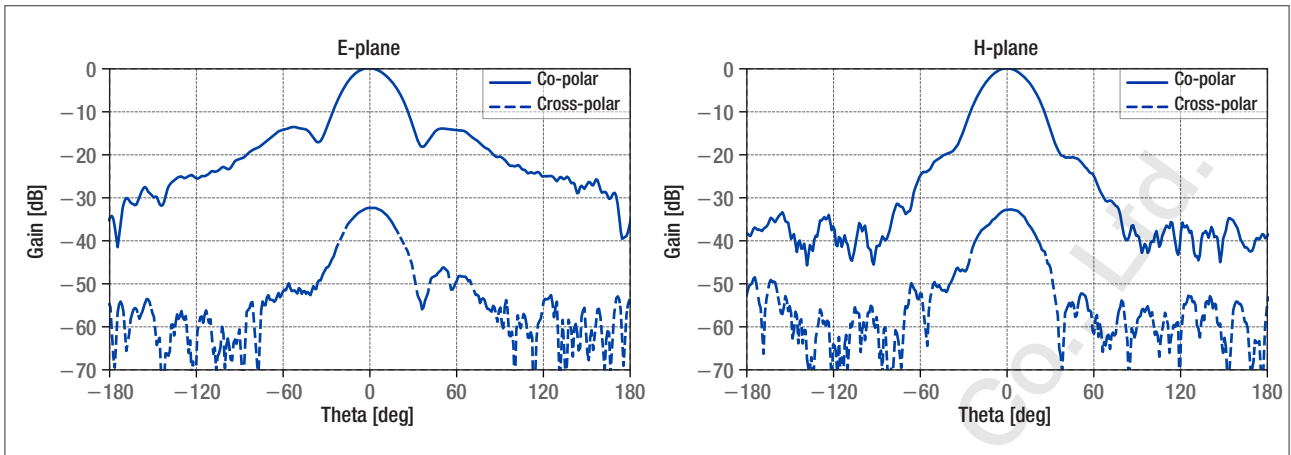
## Electrical characteristics

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

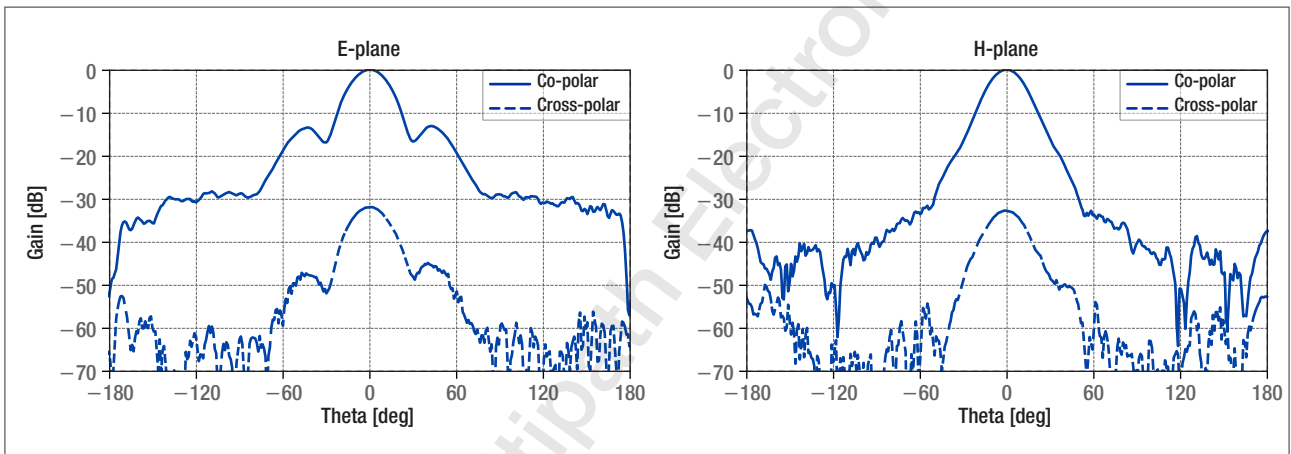


## • Radiation patterns

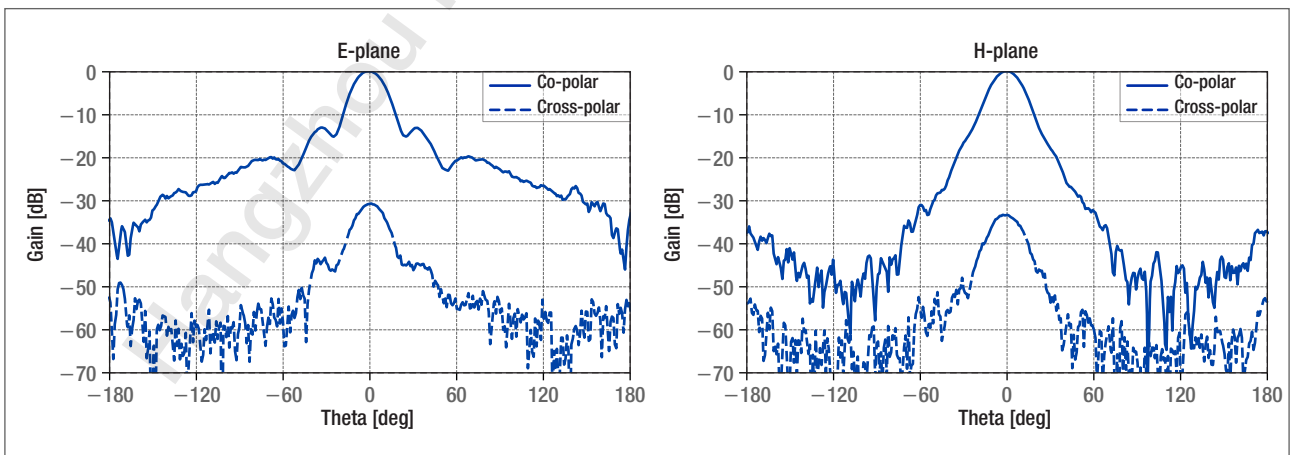
Patterns @ 15.0 GHz



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	15.04	38.38	-32.57	1.20
15.0	15.22	38.49	-32.31	1.06
15.5	15.33	38.67	-32.95	1.03
16.0	15.65	38.62	-32.24	1.09
16.5	16.05	38.49	-32.00	1.07
17.0	16.32	38.48	-31.85	1.27
17.5	16.51	38.54	-32.41	1.23
18.0	16.59	38.71	-31.92	1.24
18.5	16.84	38.69	-31.75	1.13
19.0	17.19	38.58	-31.24	1.16
19.5	17.43	38.56	-31.26	1.29
20.0	17.57	38.64	-31.41	1.19
20.5	17.62	38.80	-31.21	1.14
21.0	17.89	38.75	-30.95	1.09
21.5	18.21	38.63	-30.97	1.04
22.0	18.28	38.76	-30.60	1.14

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
15.0	30.04°	28.79°
18.5	25.31°	23.29°
22.0	20.89°	20.73°



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