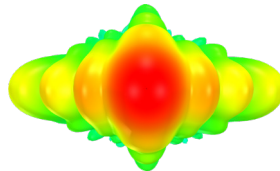


# Standard Gain Horn Antennas

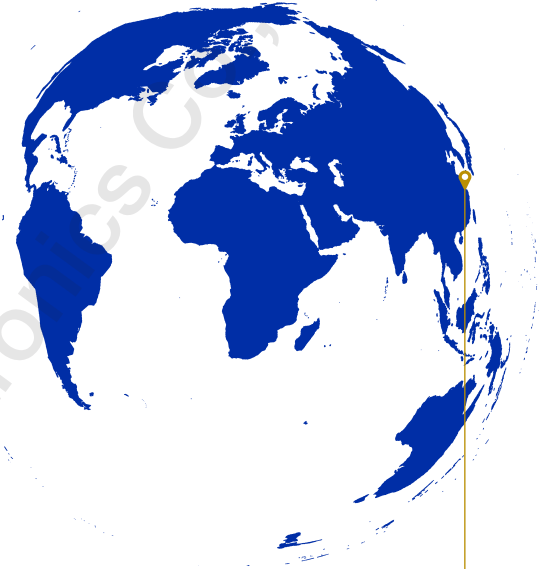
39.2-59.6GHz,20dBi



Radiation pattern



QR code



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

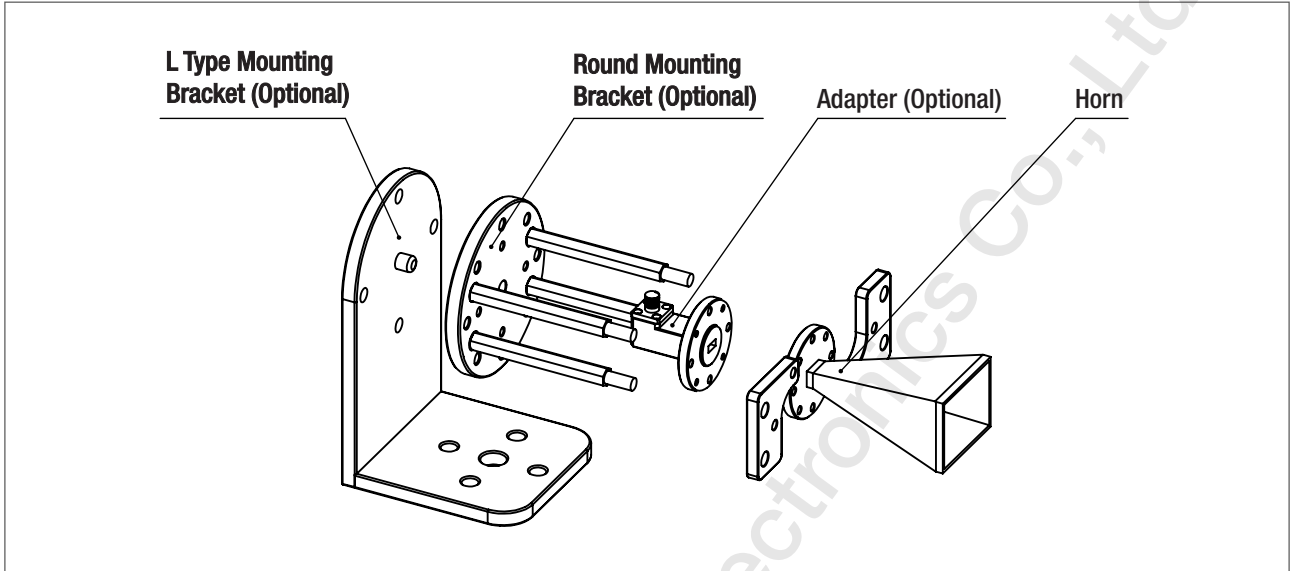
## ⚙️ Product specifications

Part number	HA-WR19-20	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	39.2 – 59.6	3dB beamwidth [deg]	E-plane: 15 Typ. H-plane: 15 Typ.
Waveguide band	WR19	Cross-polarization isolation [dB]	50 Typ.
Dimensions (H x W x L) [mm; inch]	28.6 x 28.6 x 81.15; 1.13 x 1.13 x 3.20	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.10; 0.220	Impedance [Ohms]	50
Material	Cu (Gold plated)	RF connector	1.85-Female

Outline dimensions

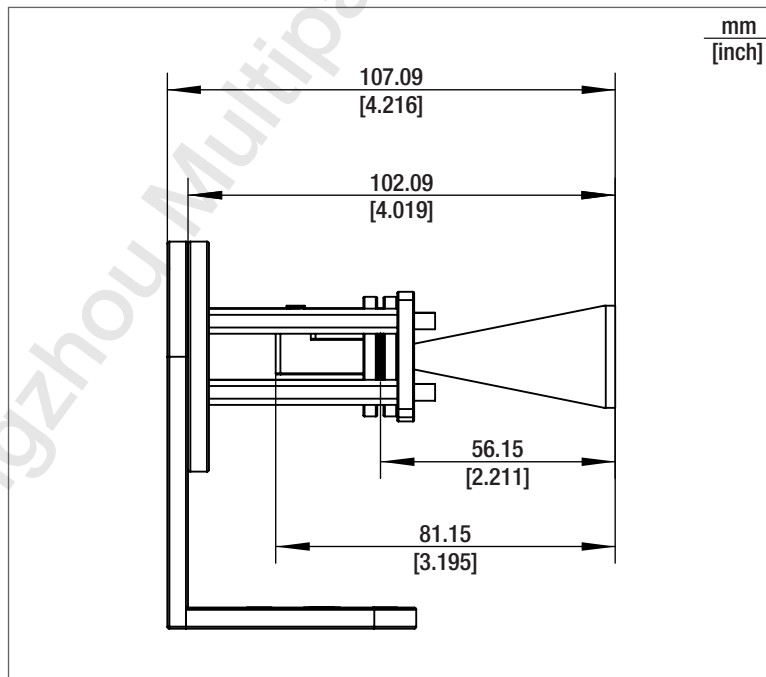
• Assembly dimensional drawing

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.

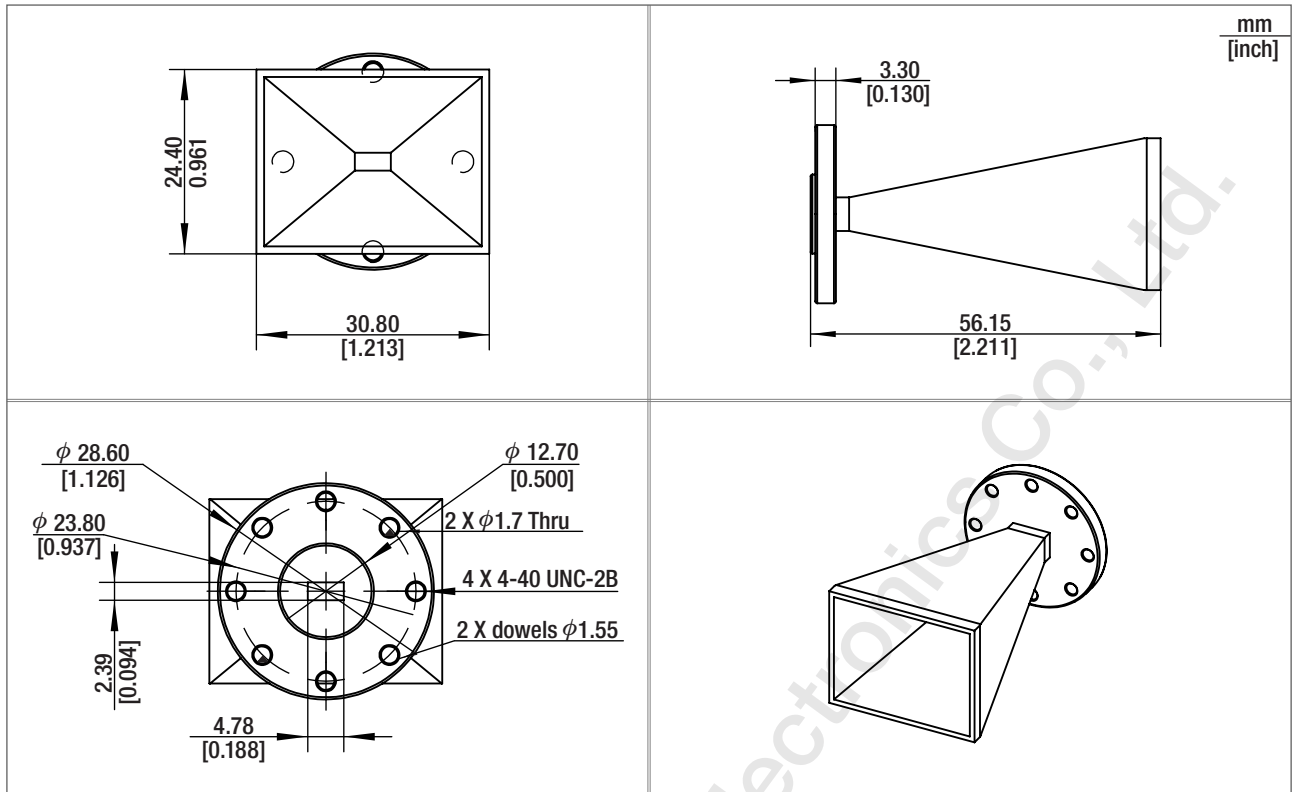


Side view of the mounting system.

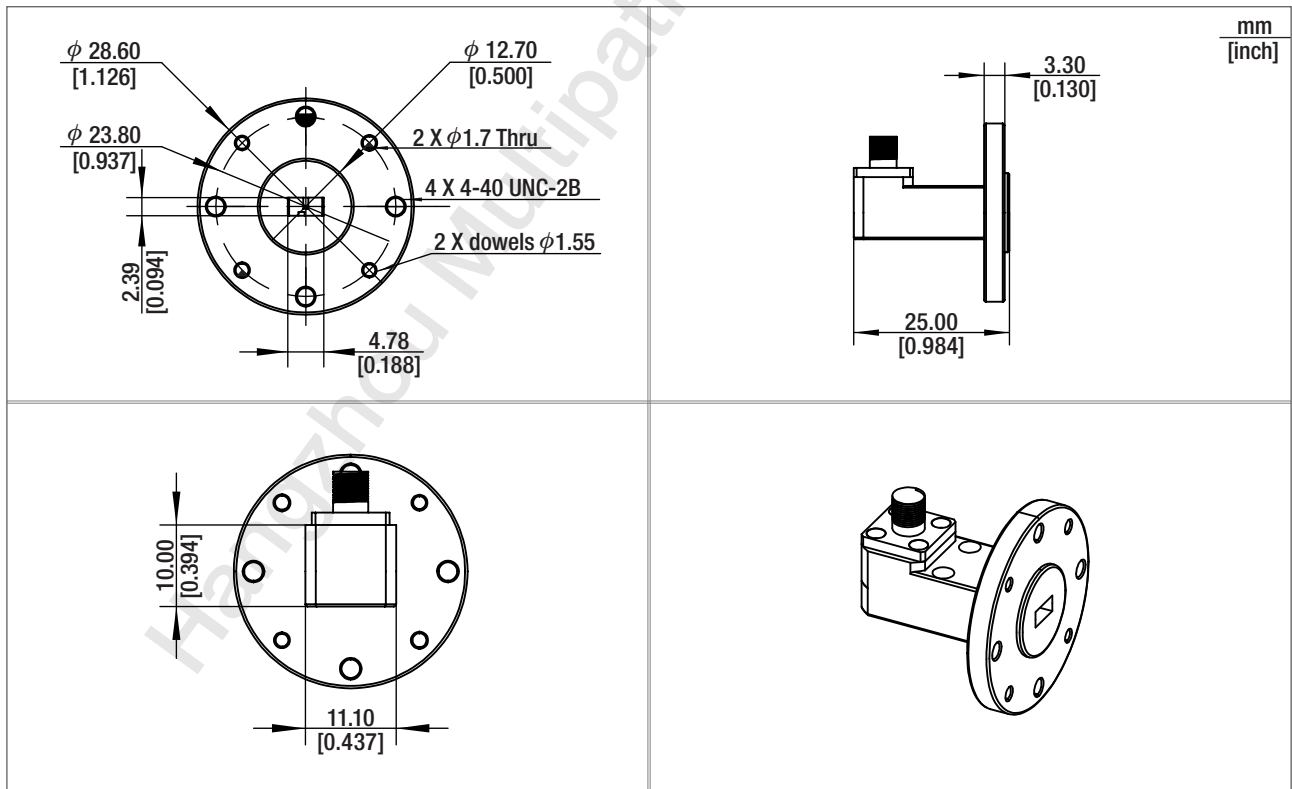
Detailed dimensions of the components will be given in subsequent diagrams.



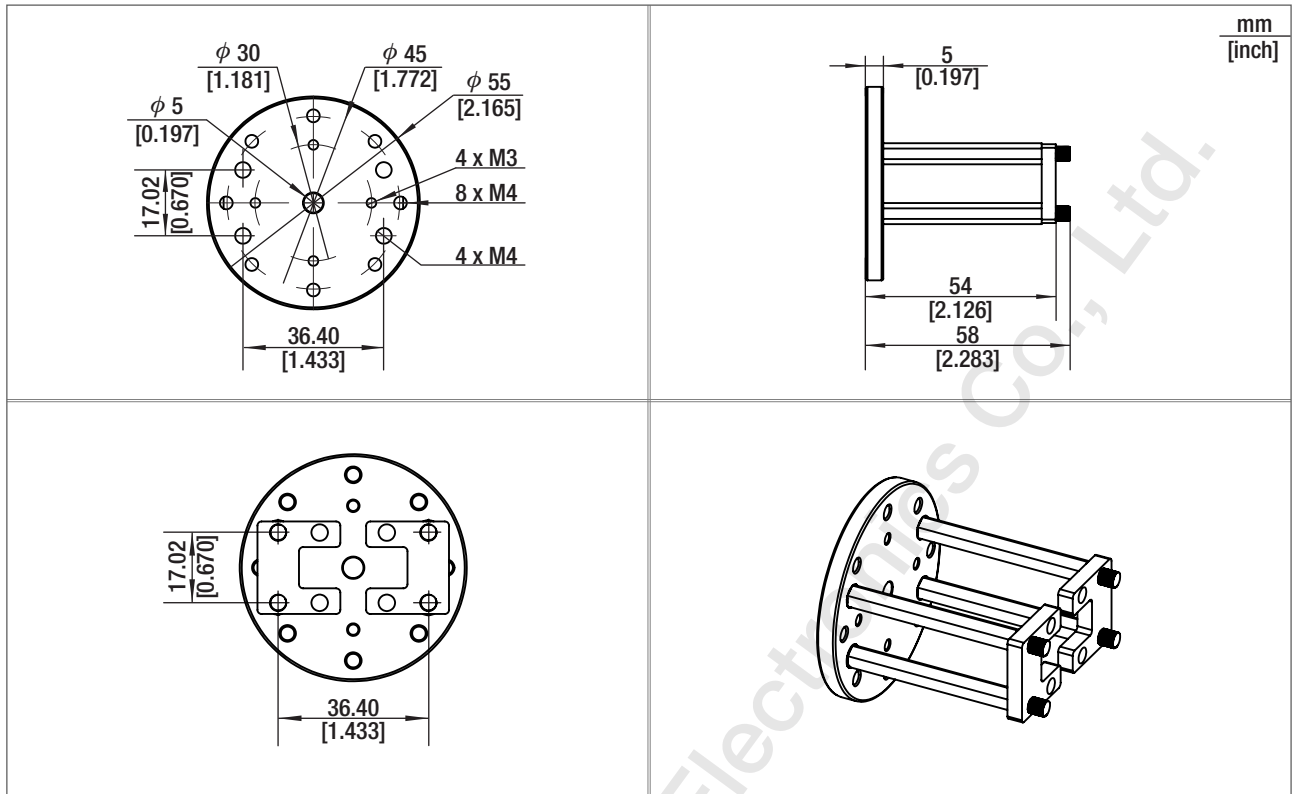
• Dimensional drawing: horn, HA-WR19-20



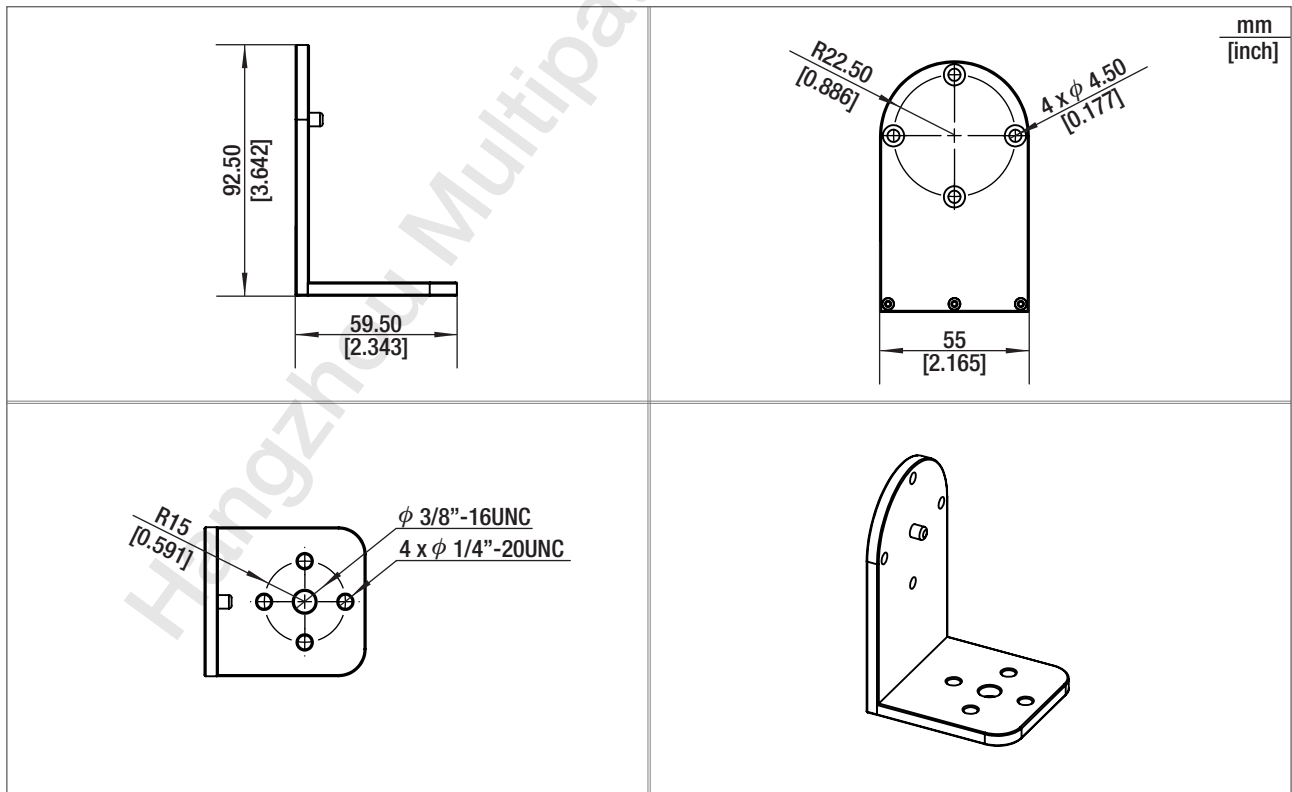
• Dimensional drawing: adapter, WR19-1.85-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

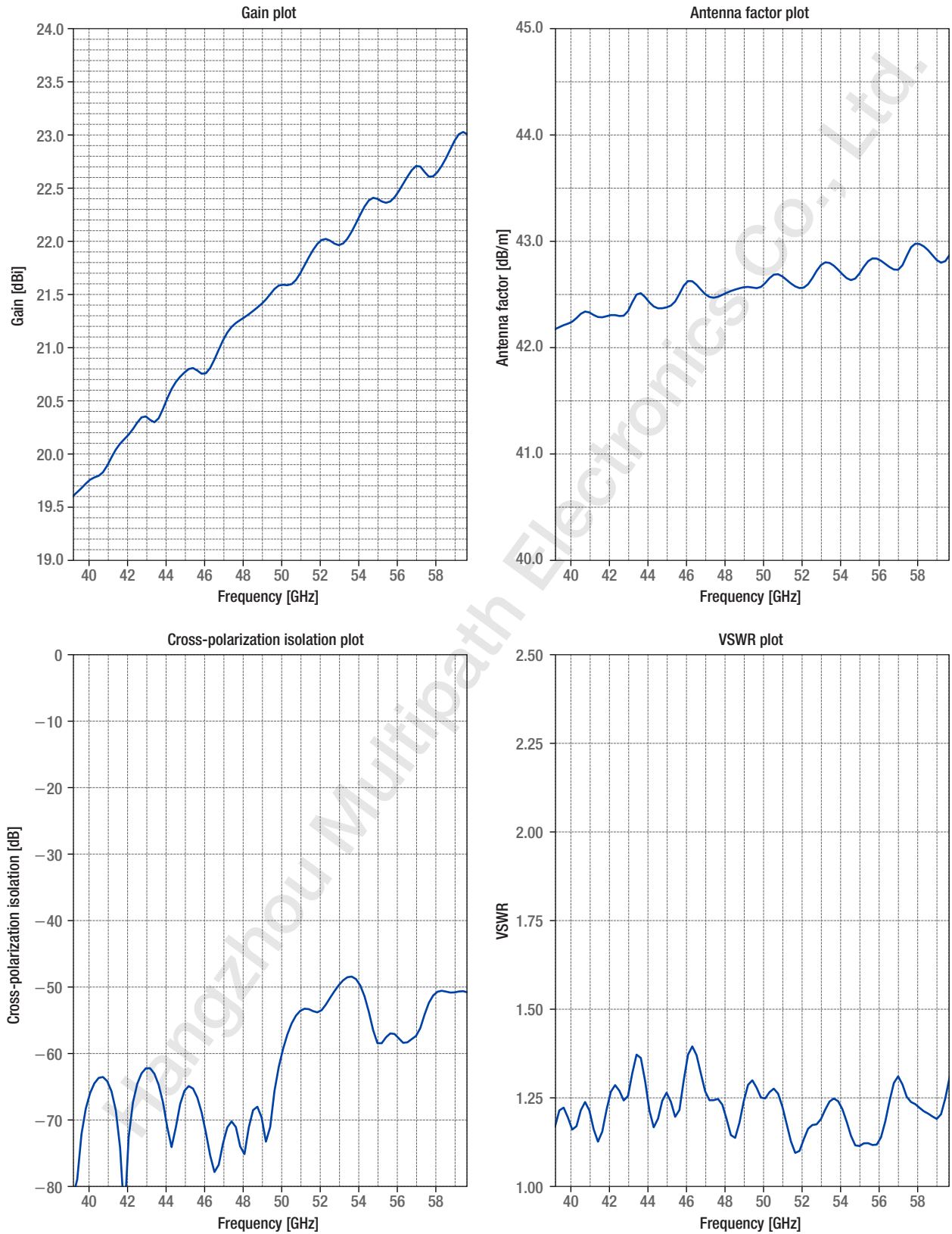


• Dimensional drawing: L type mounting bracket (Optional)



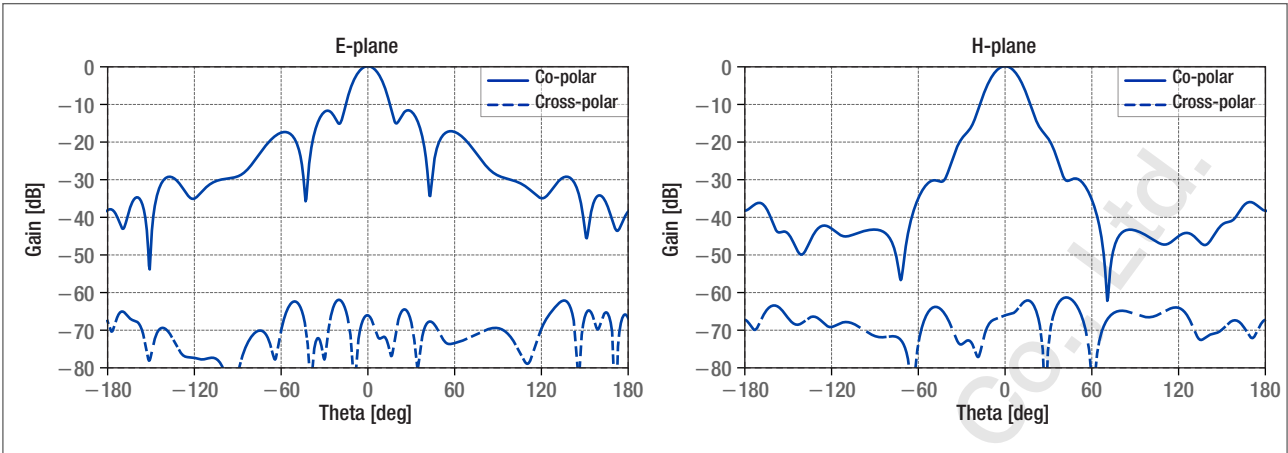
## Electrical characteristics

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

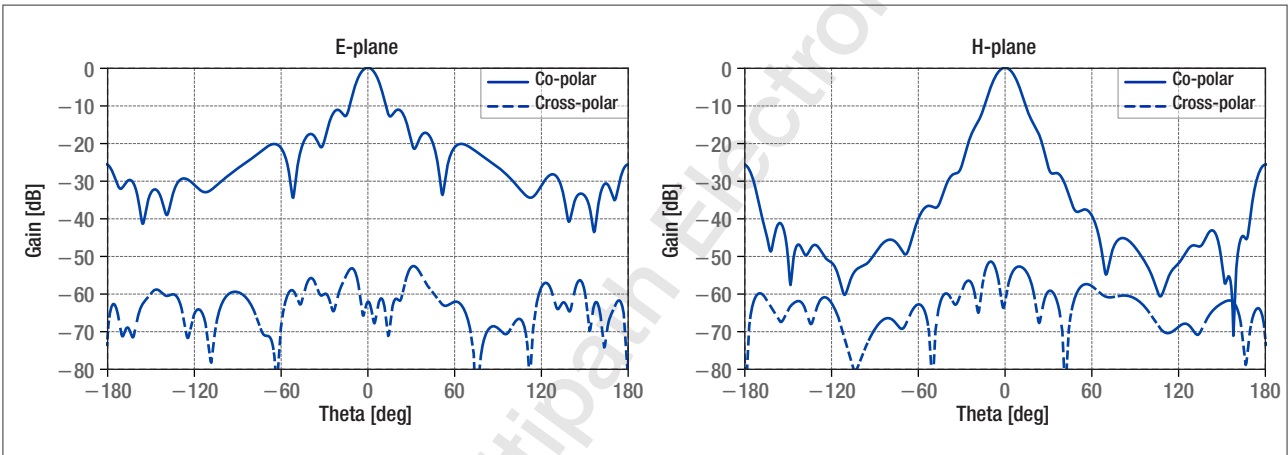


## • Radiation patterns

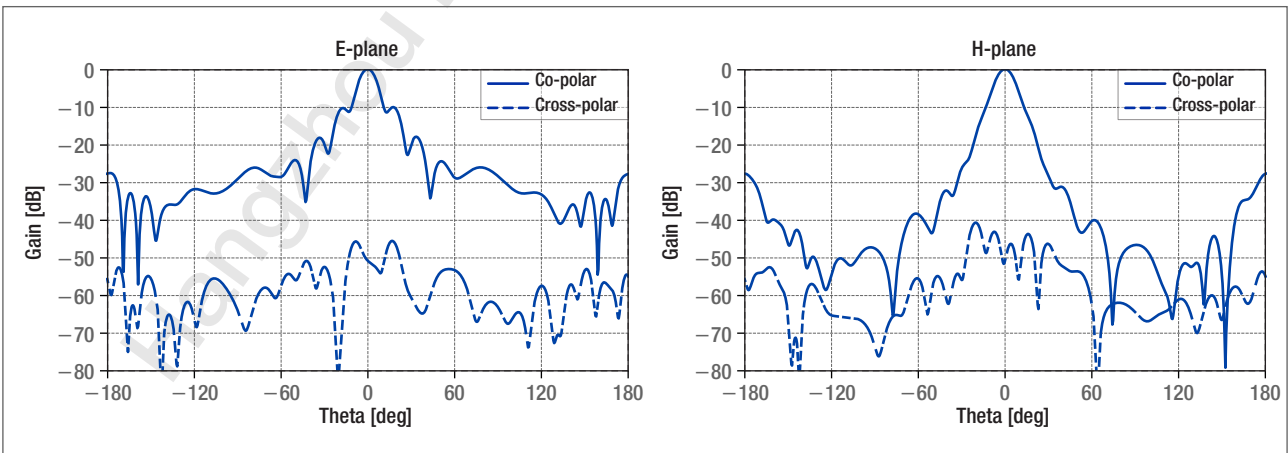
Patterns @ 39.0 GHz



Patterns @ 50.0 GHz



Patterns @ 60.0 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
40	19.89	42.34	-64.04	1.21
41	20.14	42.30	-84.72	1.21
42	20.35	42.31	-62.86	1.24
43	20.34	42.52	-64.61	1.36
44	20.68	42.38	-70.99	1.19
45	20.81	42.44	-65.15	1.19
46	20.81	42.63	-75.23	1.39
47	21.15	42.48	-71.01	1.24
48	21.29	42.52	-75.04	1.19
49	21.42	42.58	-69.51	1.24
50	21.59	42.58	-61.87	1.25
51	21.64	42.70	-54.15	1.26
52	21.93	42.58	-53.47	1.09
53	22.01	42.66	-51.43	1.17
54	22.03	42.80	-48.36	1.24
55	22.34	42.66	-51.24	1.18
56	22.38	42.77	-58.31	1.12
57	22.48	42.83	-57.59	1.14
58	22.72	42.74	-57.22	1.31
59	22.62	42.99	-51.11	1.23

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
39	17.52°	19.02°
50	13.99°	15.11°
60	12.04°	13.22°



Multipath Electronics

### Contact

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