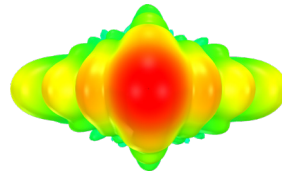


# Standard Gain Horn Antennas

73.8 - 112.0 GHz, 20 dBi

Radiation pattern



QR code



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

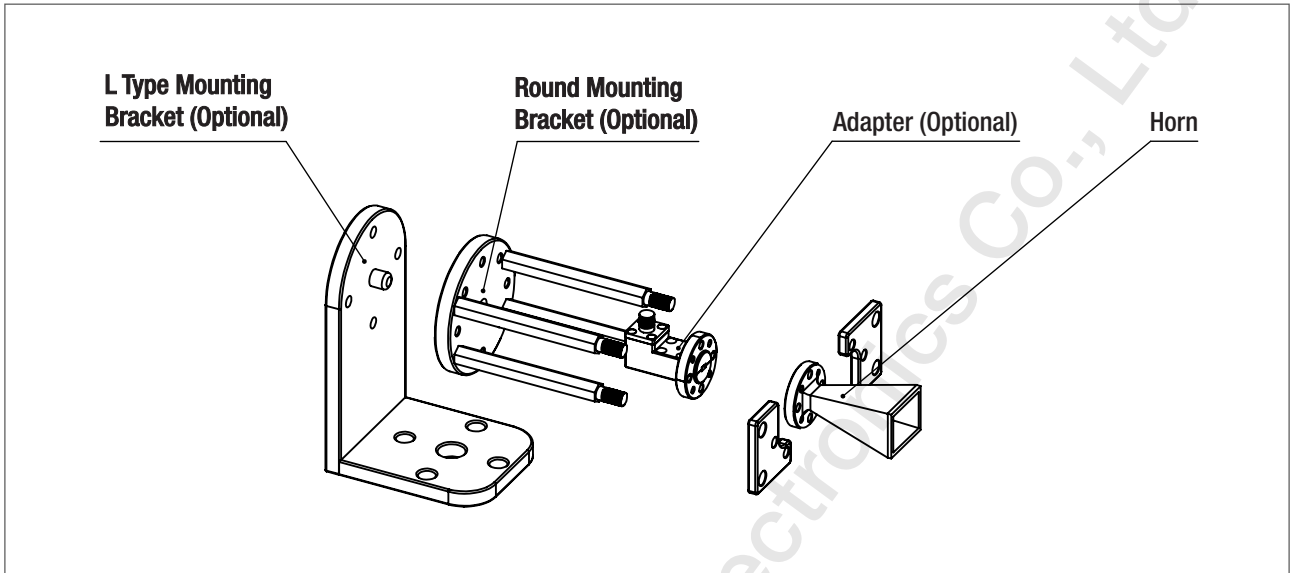
## ⚙️ Product specifications

Part number	HA-WR10-20	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	73.8 – 112.0	3dB beamwidth [deg]	E-plane: 15 Typ. H-plane: 15 Typ.
Waveguide band	WR10	Cross-polarization isolation [dB]	50 Typ.
Dimensions (H x W x L) [mm; inch]	19.05 x 19.05 x 34.83; 0.75 x 0.75 x 1.37	VSWR	1.3 Typ.
Weight (approx.) [kg; lb]	0.04; 0.088	Impedance [Ohms]	50
Material	Cu (Gold plated)	RF connector	1.0-Female

Outline dimensions

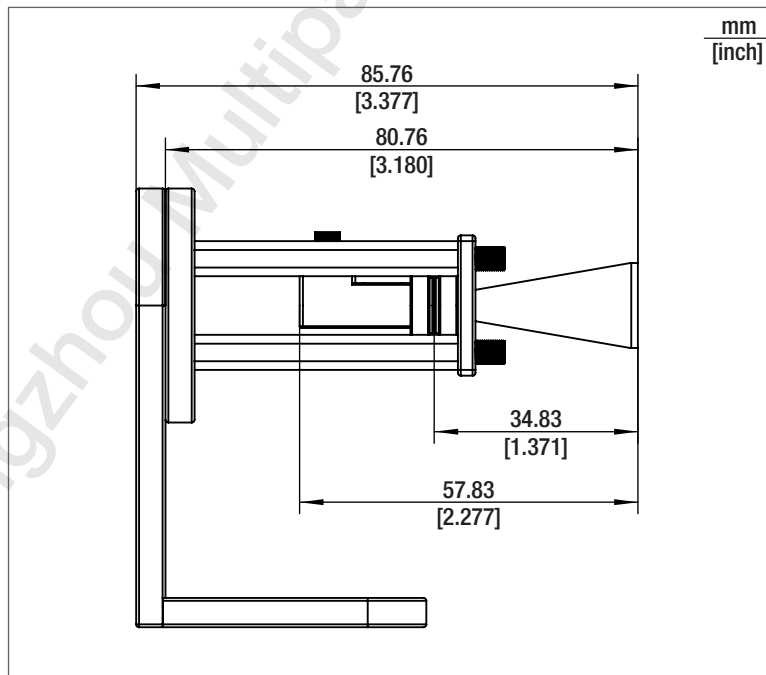
• Assembly dimensional drawing

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.

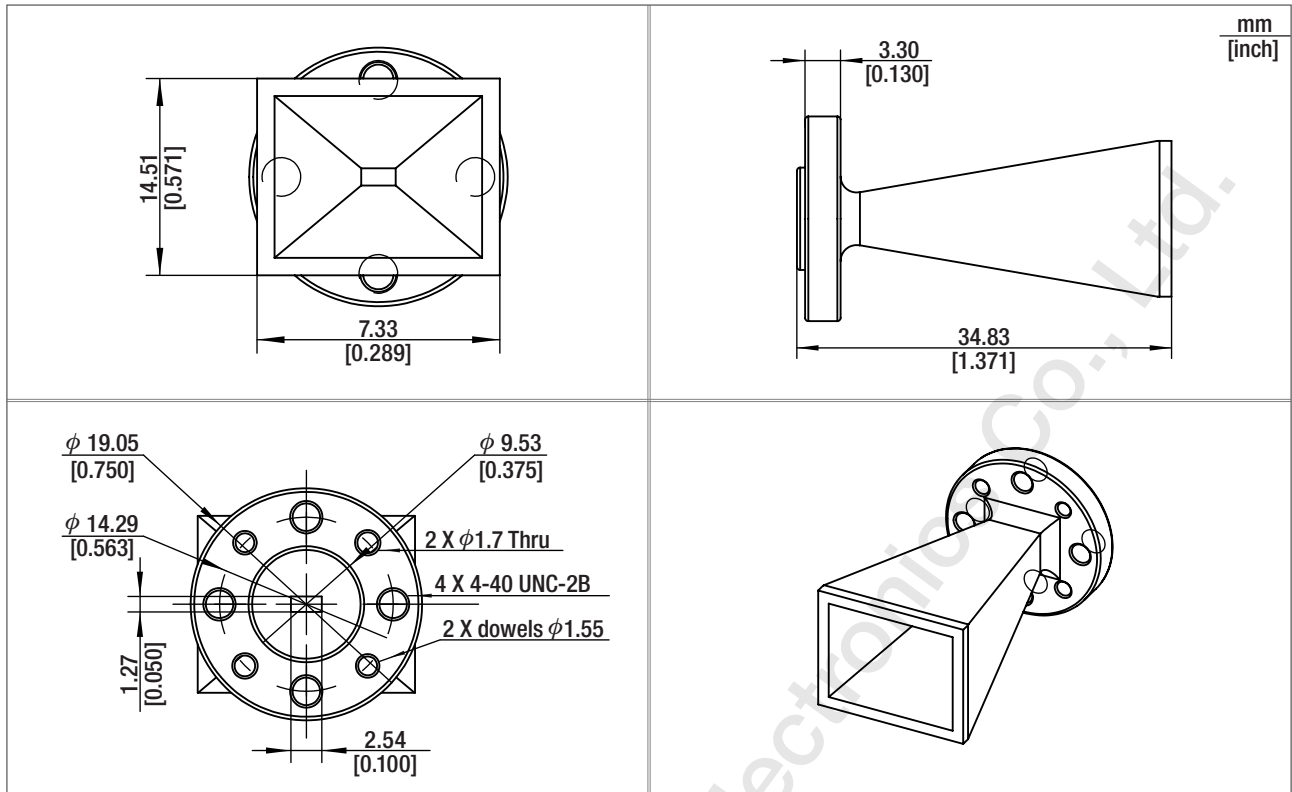


Side view of the mounting system.

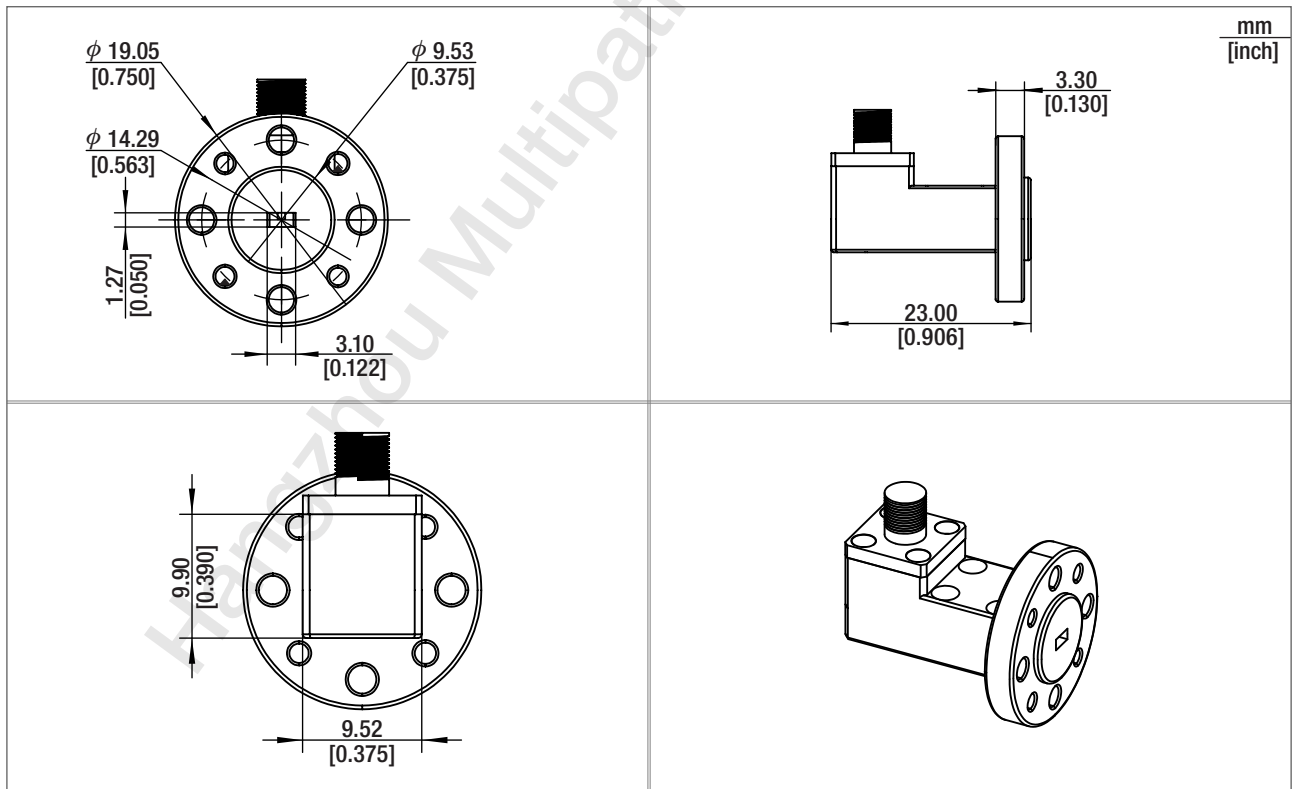
Detailed dimensions of the components will be given in subsequent diagrams.



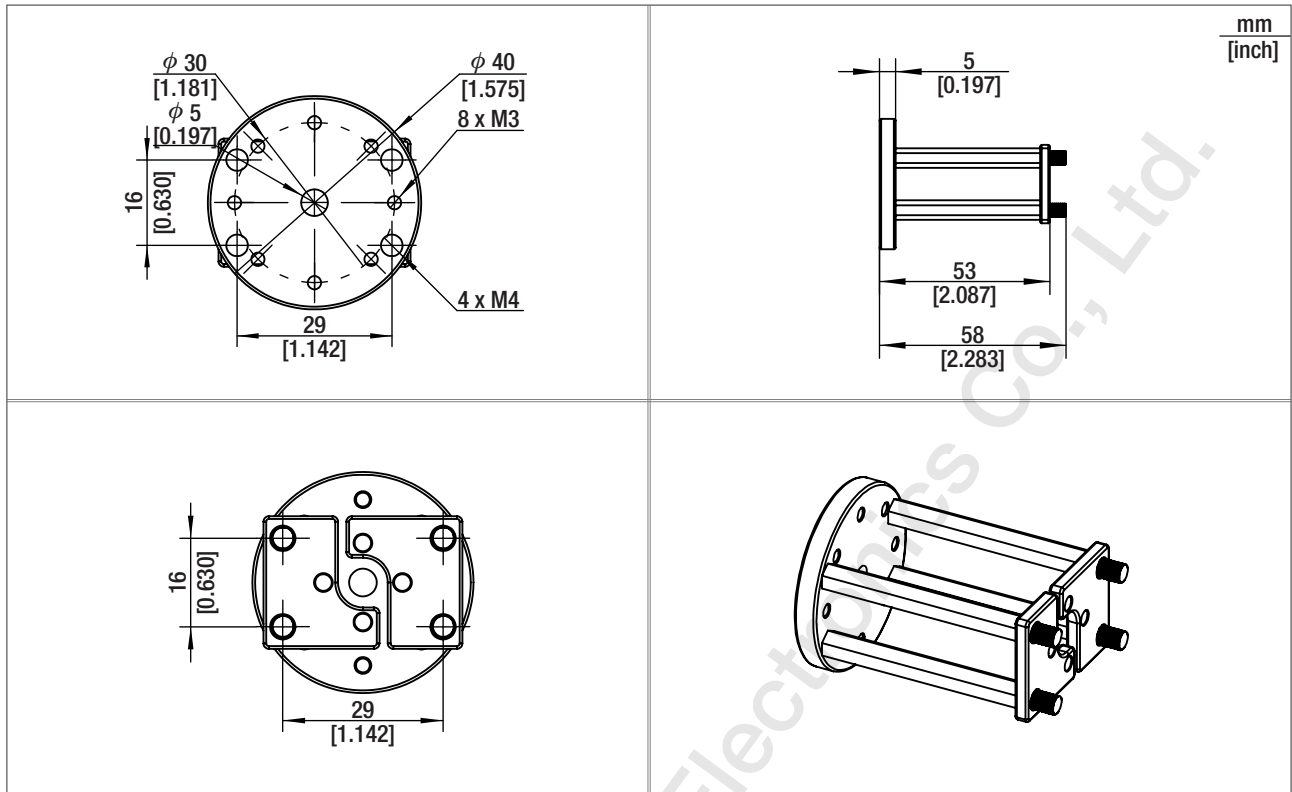
• Dimensional drawing: horn, HA-WR10-20



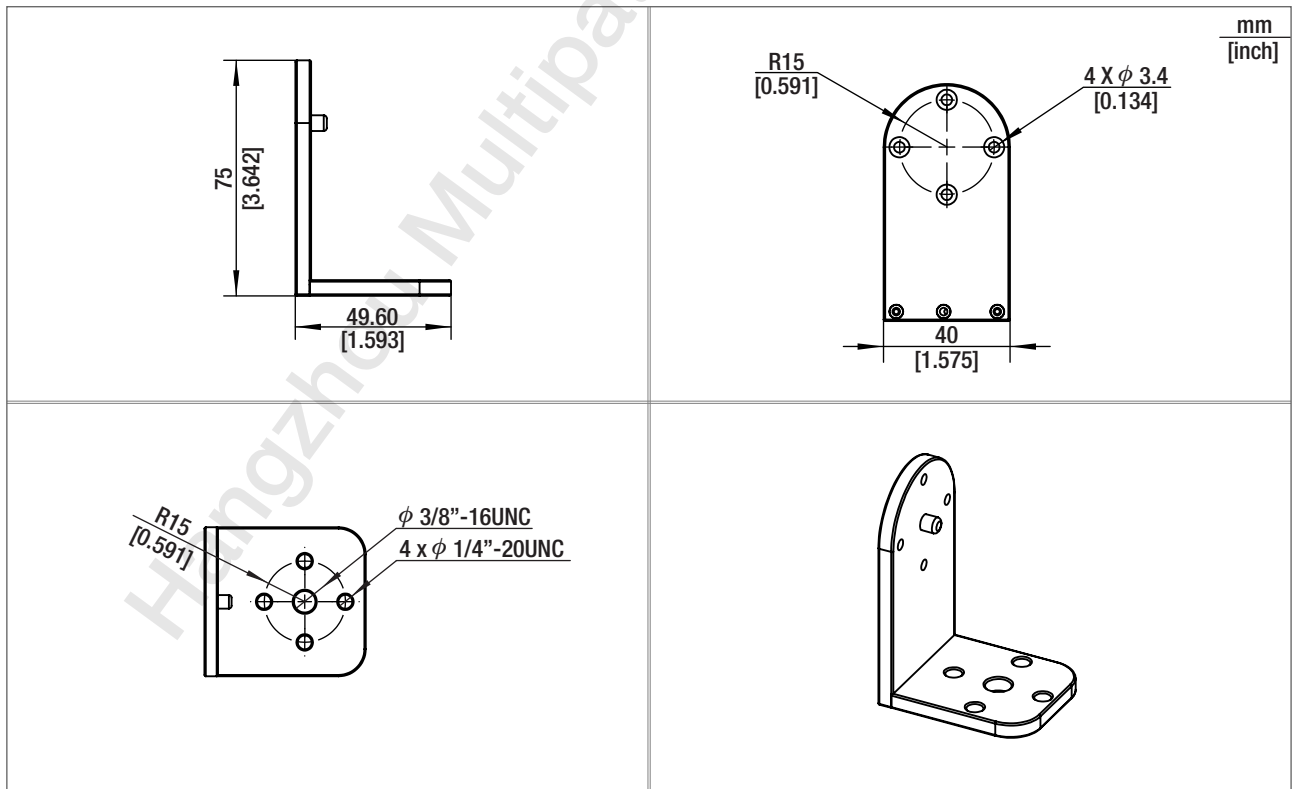
• Dimensional drawing: adapter, WR10-1.0-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

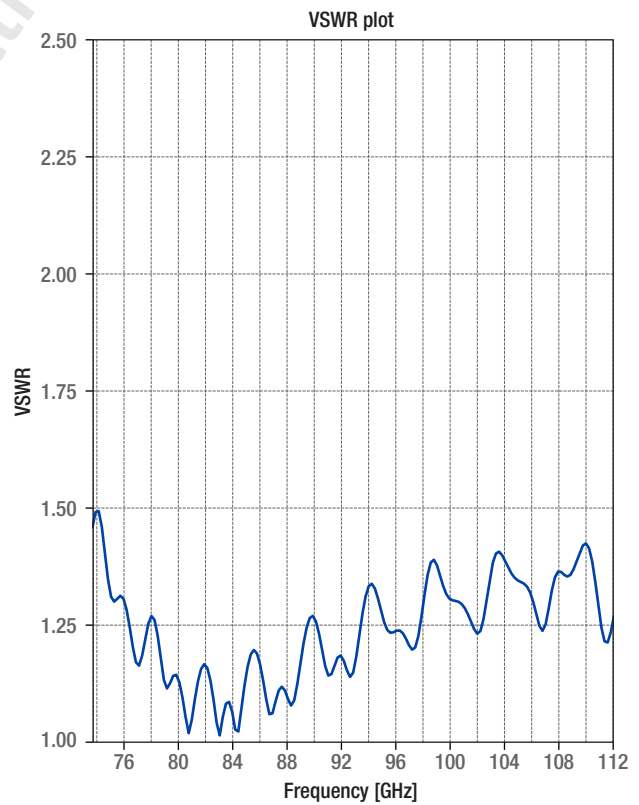
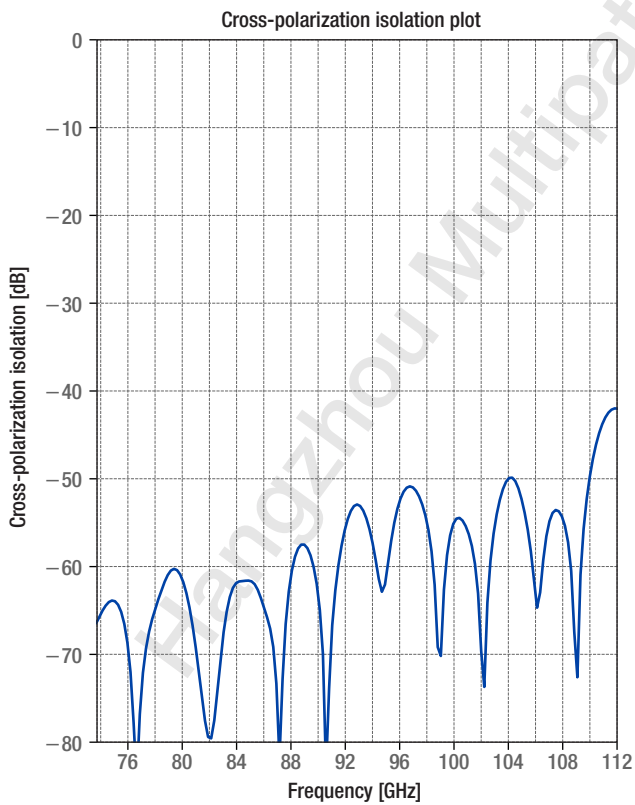
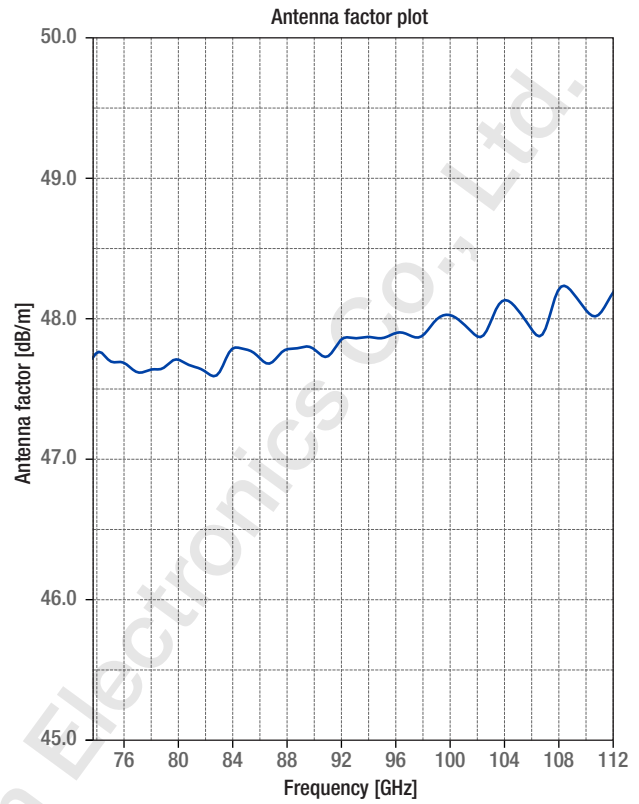
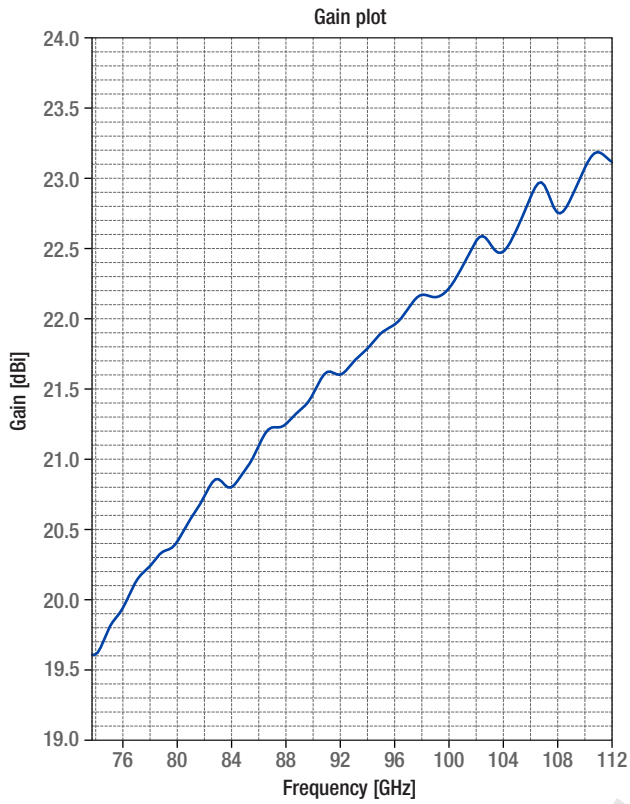


• Dimensional drawing: L type mounting bracket (Optional)



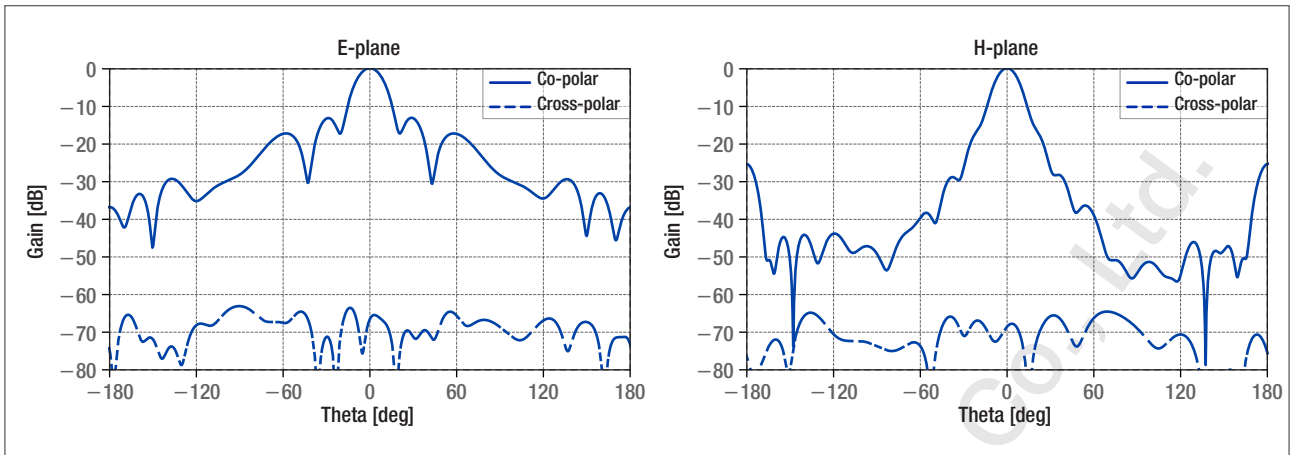
## Electrical characteristics

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

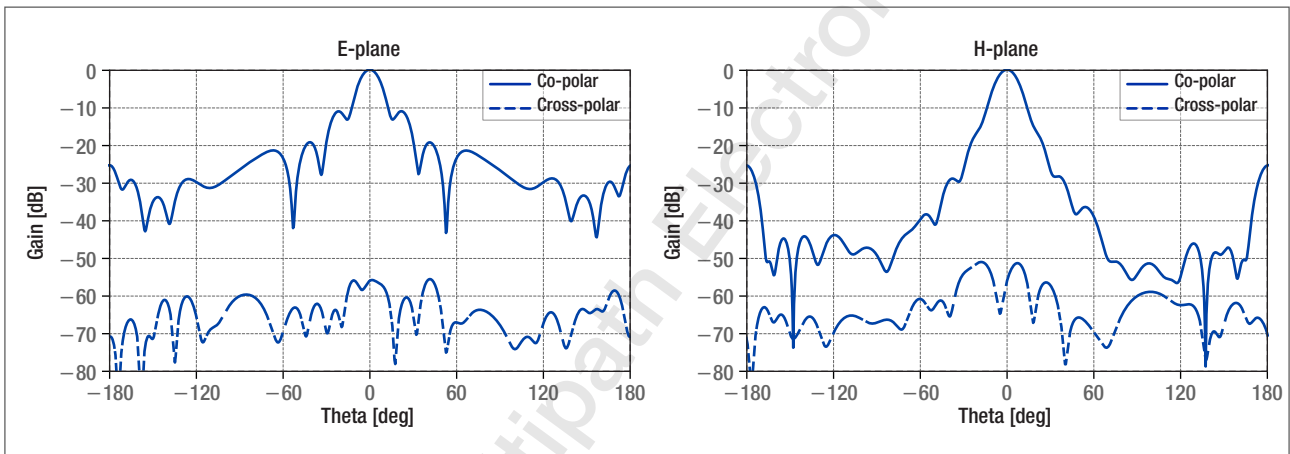


## • Radiation patterns

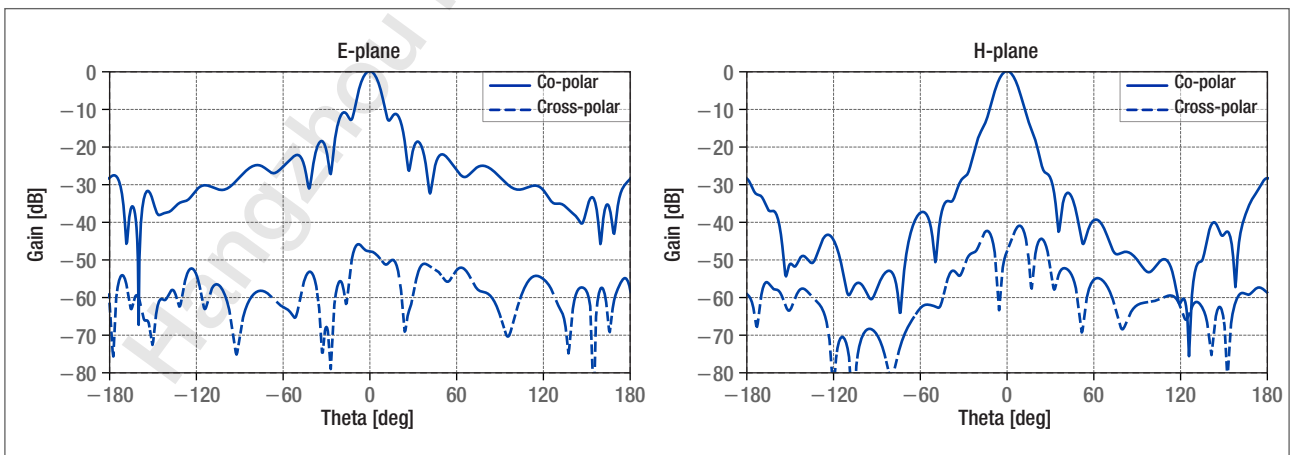
Patterns @ 72 GHz



Patterns @ 92 GHz



Patterns @ 112 GHz



• Data table


Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
74	19.88	47.70	-65.04	1.30
76	20.18	47.63	-69.19	1.18
78	20.35	47.68	-60.32	1.11
80	20.58	47.67	-69.06	1.04
82	20.86	47.60	-70.40	1.04
84	20.88	47.80	-61.48	1.07
86	21.19	47.69	-66.95	1.09
88	21.29	47.79	-58.74	1.07
90	21.49	47.78	-64.81	1.25
92	21.61	47.86	-55.76	1.18
94	21.77	47.88	-55.58	1.31
96	21.94	47.89	-54.86	1.23
98	22.14	47.88	-51.85	1.20
100	22.17	48.02	-62.49	1.35
102	22.40	47.96	-56.16	1.28
104	22.56	47.97	-56.09	1.35
106	22.60	48.10	-50.93	1.35
108	22.98	47.88	-59.11	1.25
110	22.77	48.24	-57.08	1.35
112	23.13	48.05	-47.56	1.41

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
72	17.96°	15.14°
92	14.16°	15.14°
112	11.91°	12.82°



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