

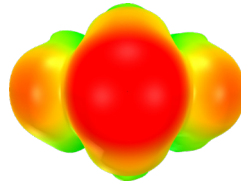


# Standard Gain Horn Antennas

17.6 - 26.7 GHz, 15 dBi



Radiation pattern



QR code



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

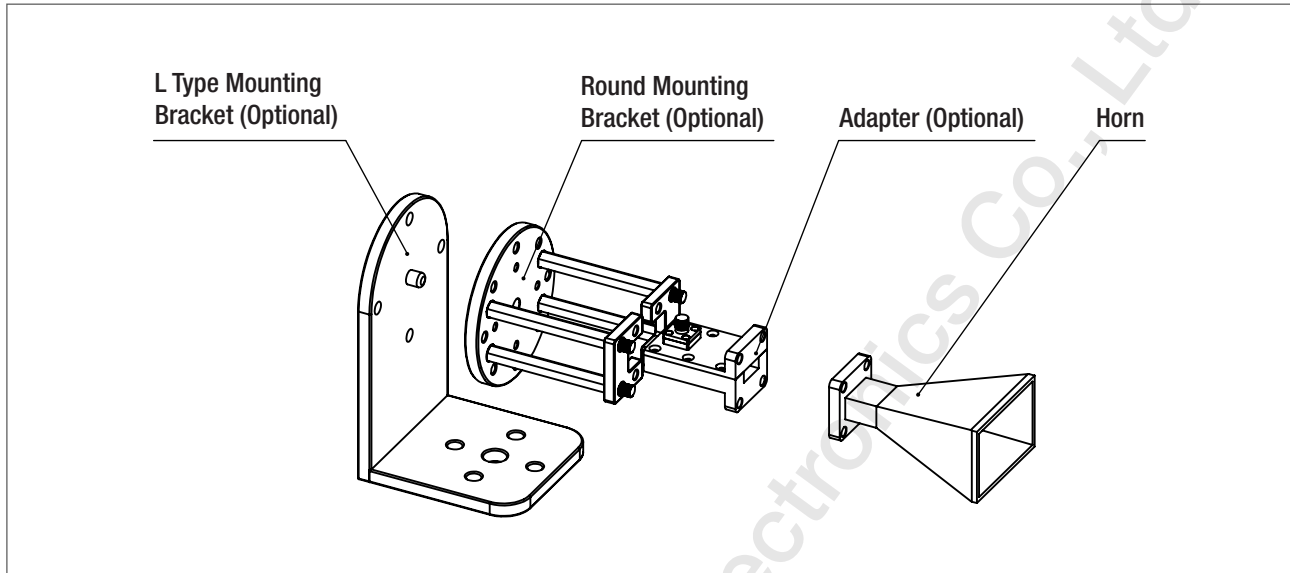
## ⚙️ Product specifications

Part number	HA-WR42-15	Polarization	Single linear
Antenna type	Pyamidal horn	Gain [dBi]	15 Typ.
Frequency range [GHz]	17.6 – 26.7	3dB beamwidth [deg]	E-plane: 25 Typ. H-plane: 25 Typ.
Waveguide band	WR42	Cross-polarization isolation [dB]	35 Typ.
Dimensions (H x W x L) [mm; inch]	41.0 x 27.5 x 94.8; 1.61 x 1.08 x 3.73	VSWR	1.25 Typ.
Weight (approx.) [kg; lb]	0.06; 0.132	Impedance [Ohms]	50
Material	Aluminum	RF connector	2.4-Female

## Outline dimensions

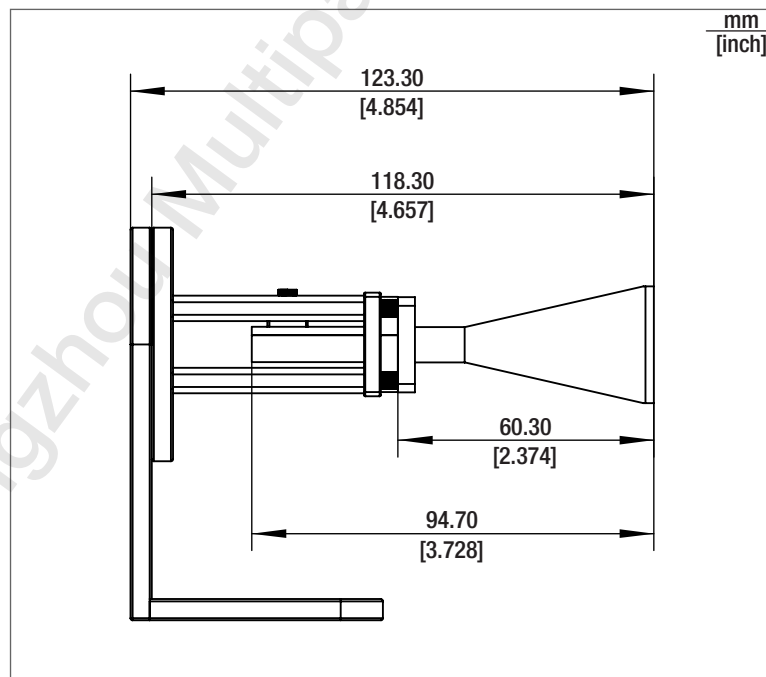
### • Assembly dimensional drawing

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.

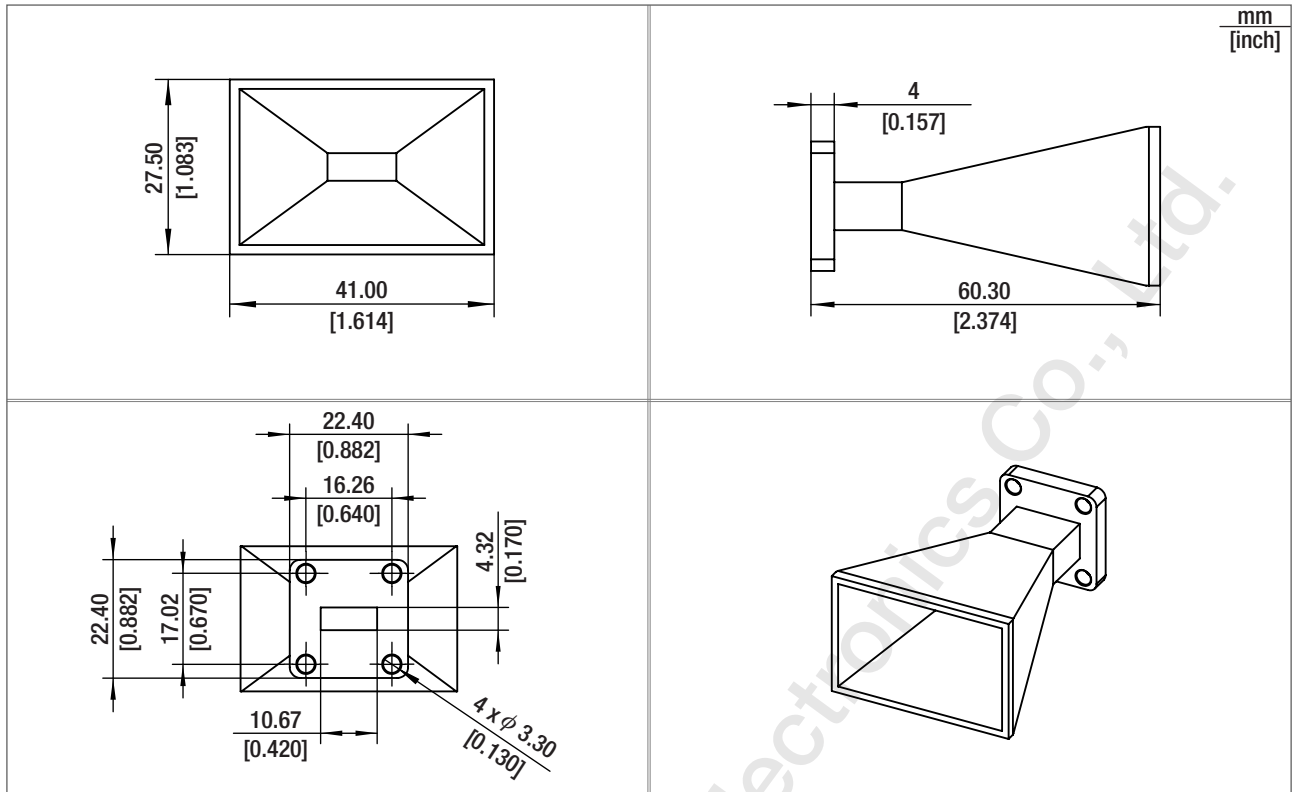


Side view of the mounting system.

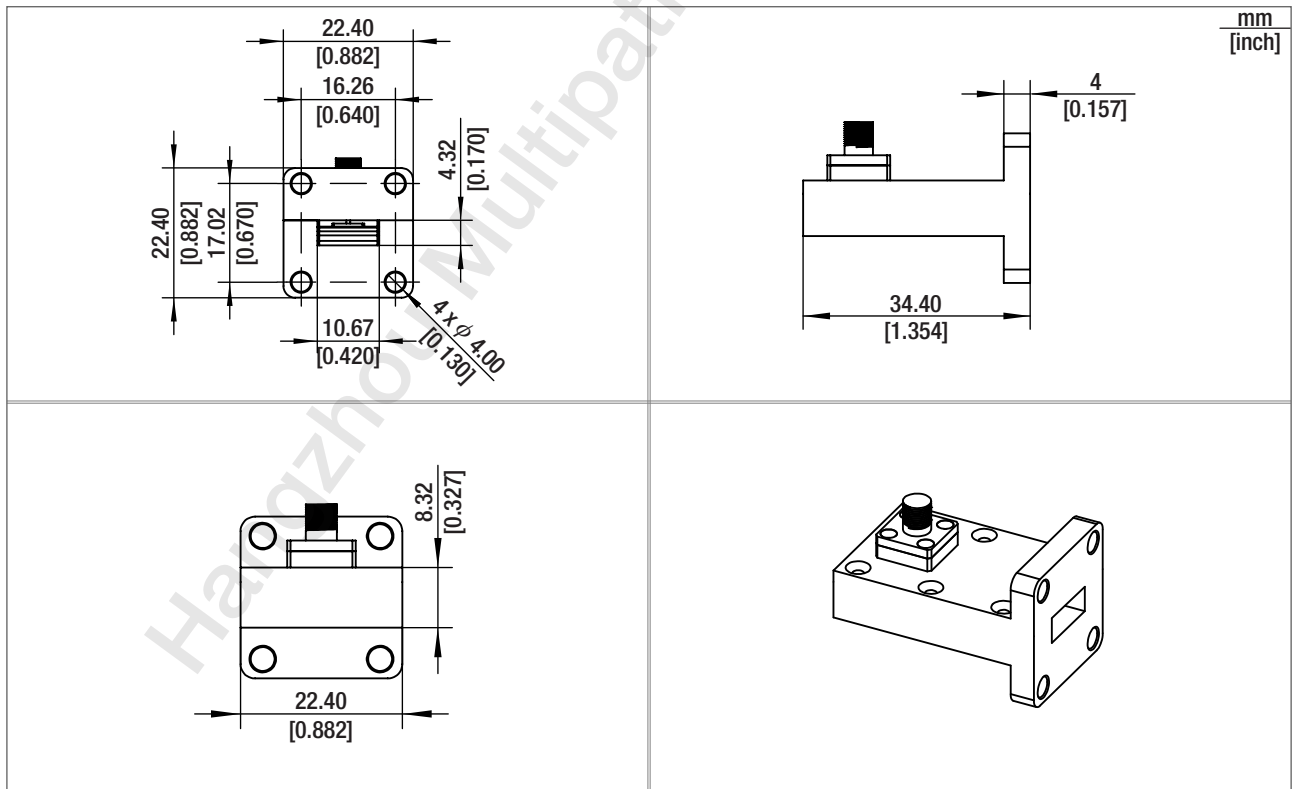
Detailed dimensions of the components will be given in subsequent diagrams.



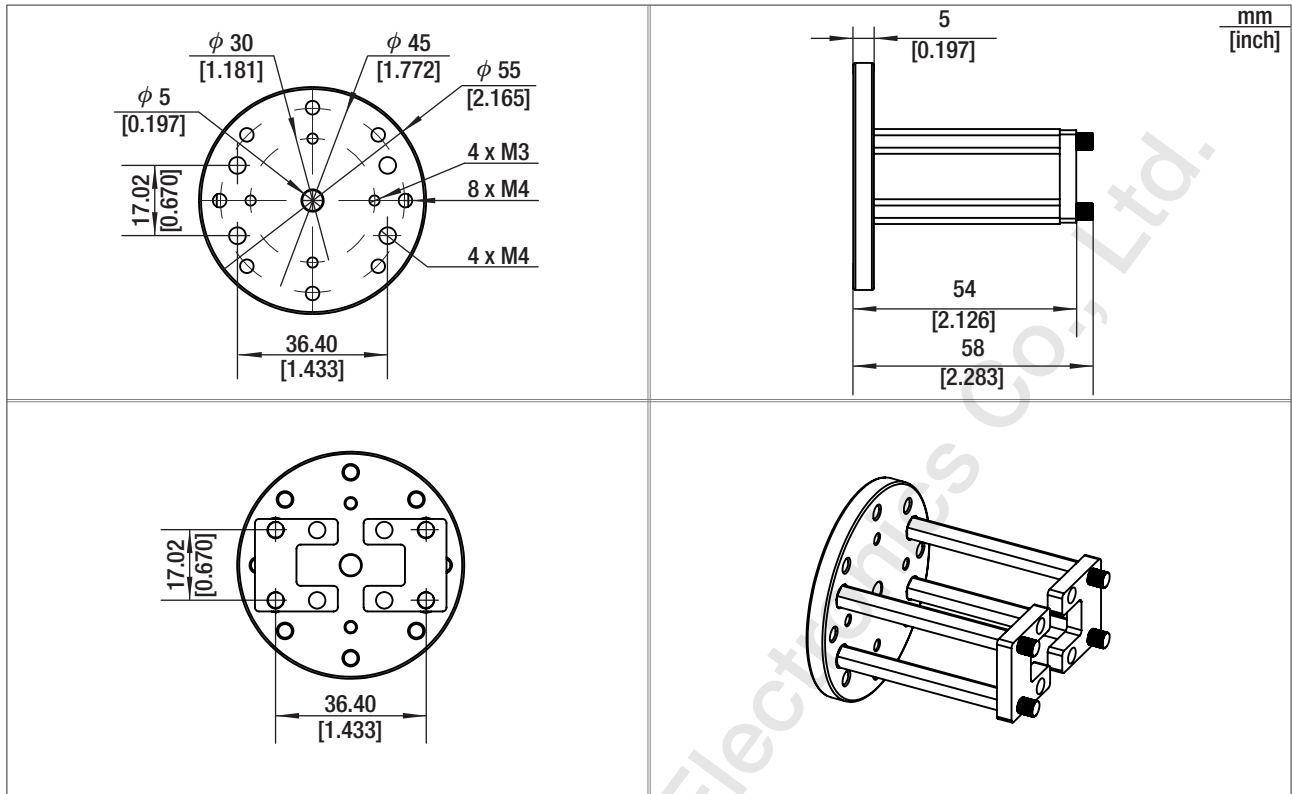
• Dimensional drawing: horn, HA-WR42-15



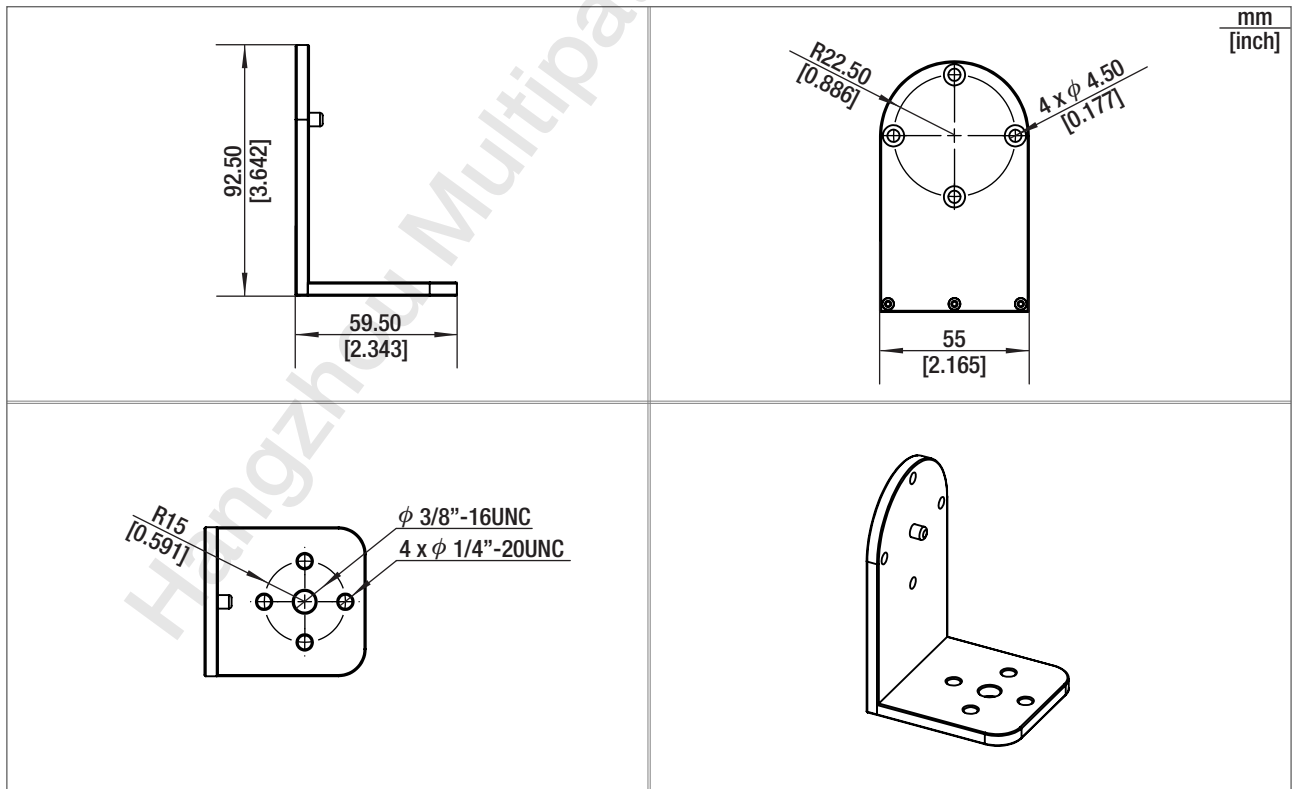
• Dimensional drawing: adapter, WR42-SMA-F (Optional)



• Dimensional drawing: round mounting bracket (Optional)

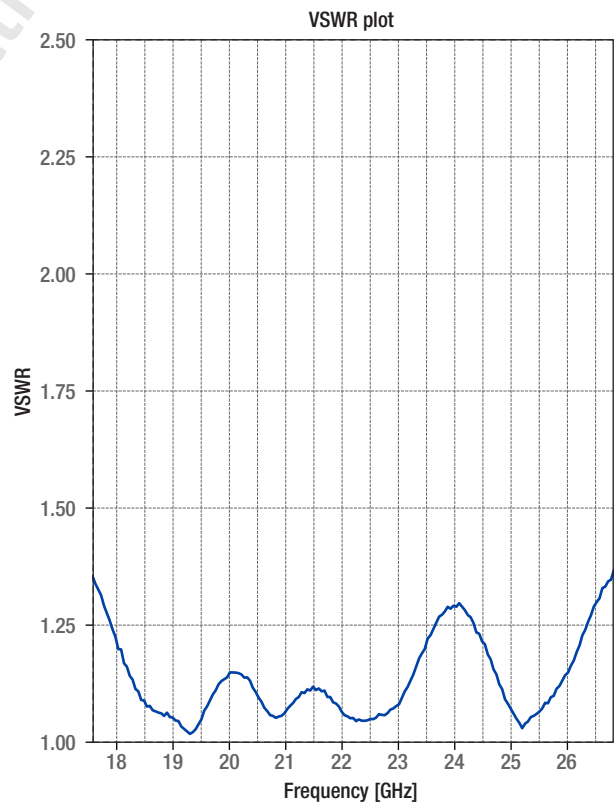
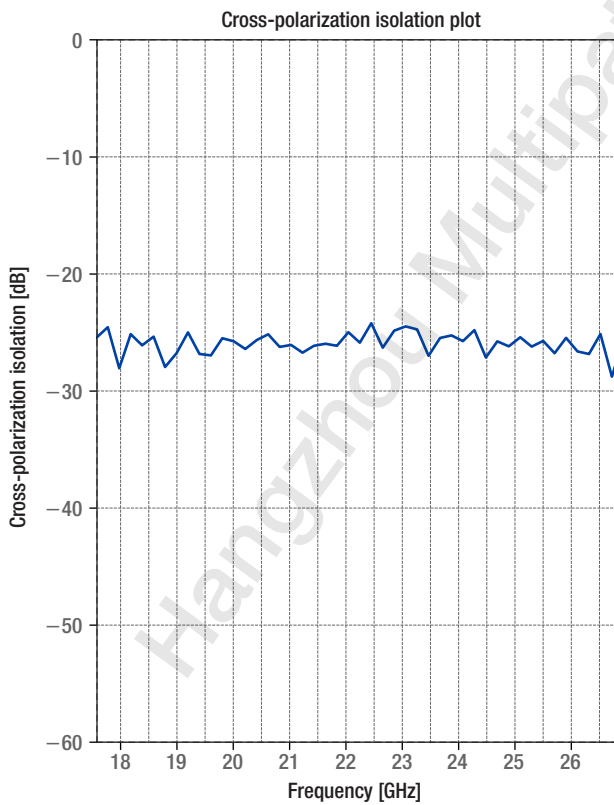
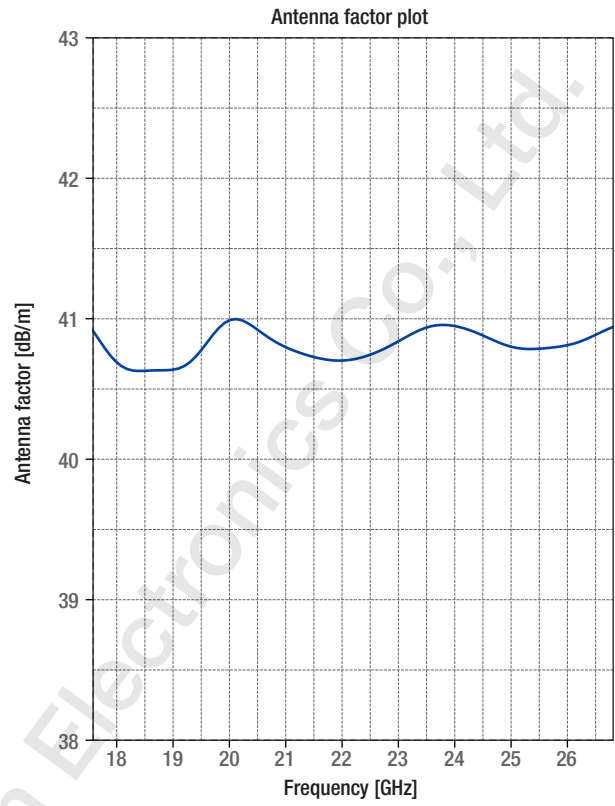
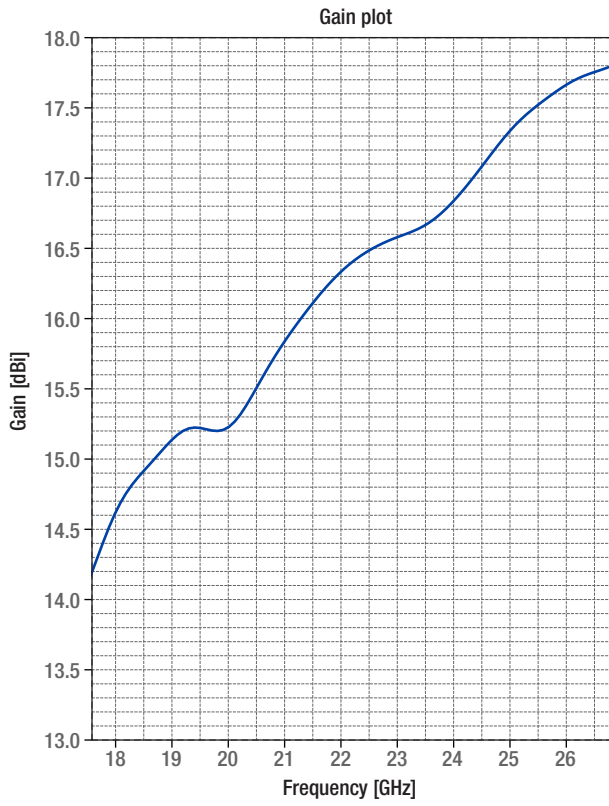


• Dimensional drawing: L type mounting bracket (Optional)



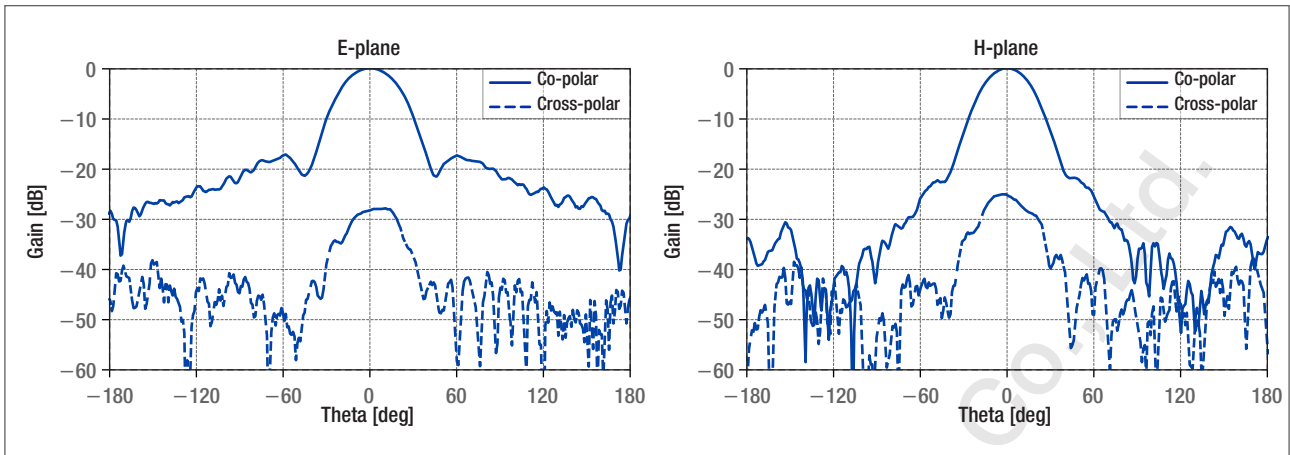
## Electrical characteristics

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

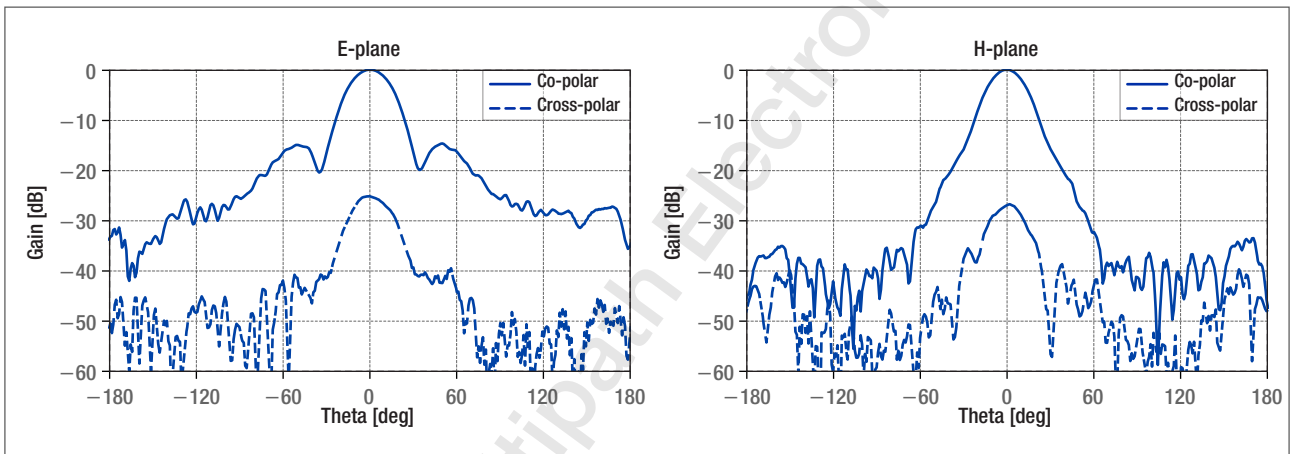


## • Radiation patterns

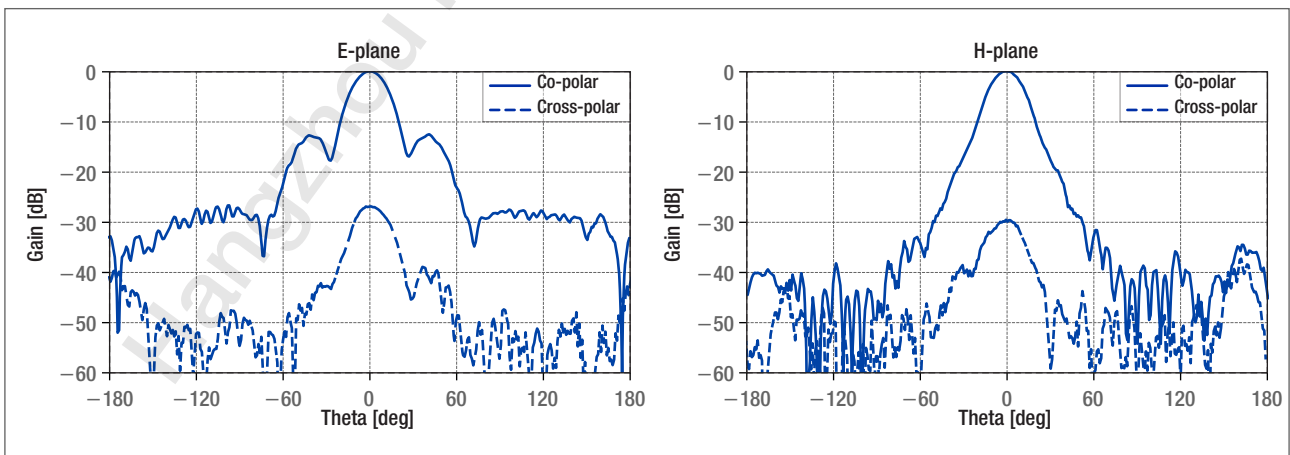
Patterns @ 18.0 GHz



Patterns @ 22.0 GHz



Patterns @ 26.0 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
17.6	14.20	40.90	-25.57	1.35
18.1	14.69	40.65	-26.70	1.19
18.6	14.96	40.62	-25.47	1.07
19.1	15.18	40.63	-25.99	1.04
19.6	15.22	40.82	-27.06	1.07
20.1	15.27	40.98	-26.19	1.14
20.6	15.60	40.87	-25.27	1.07
21.1	15.91	40.76	-26.50	1.08
21.6	16.18	40.70	-26.07	1.10
22.1	16.38	40.69	-25.54	1.04
22.6	16.52	40.76	-26.41	1.05
23.1	16.60	40.86	-24.73	1.11
23.6	16.71	40.94	-25.58	1.25
24.1	16.91	40.92	-25.38	1.27
24.6	17.18	40.83	-25.87	1.15
25.1	17.41	40.77	-25.92	1.02
25.6	17.57	40.78	-26.88	1.09
26.1	17.70	40.82	-26.84	1.20
26.6	17.78	40.91	-28.87	1.33

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
18.0	35.91°	30.93°
22.0	28.29°	24.99°
26.0	23.32°	22.85°



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