

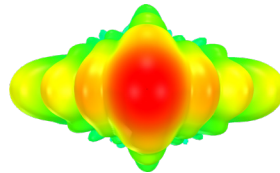


Standard Gain Horn Antennas

172 - 261 GHz, 20 dBi



Radiation pattern



QR code



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

Company Profile

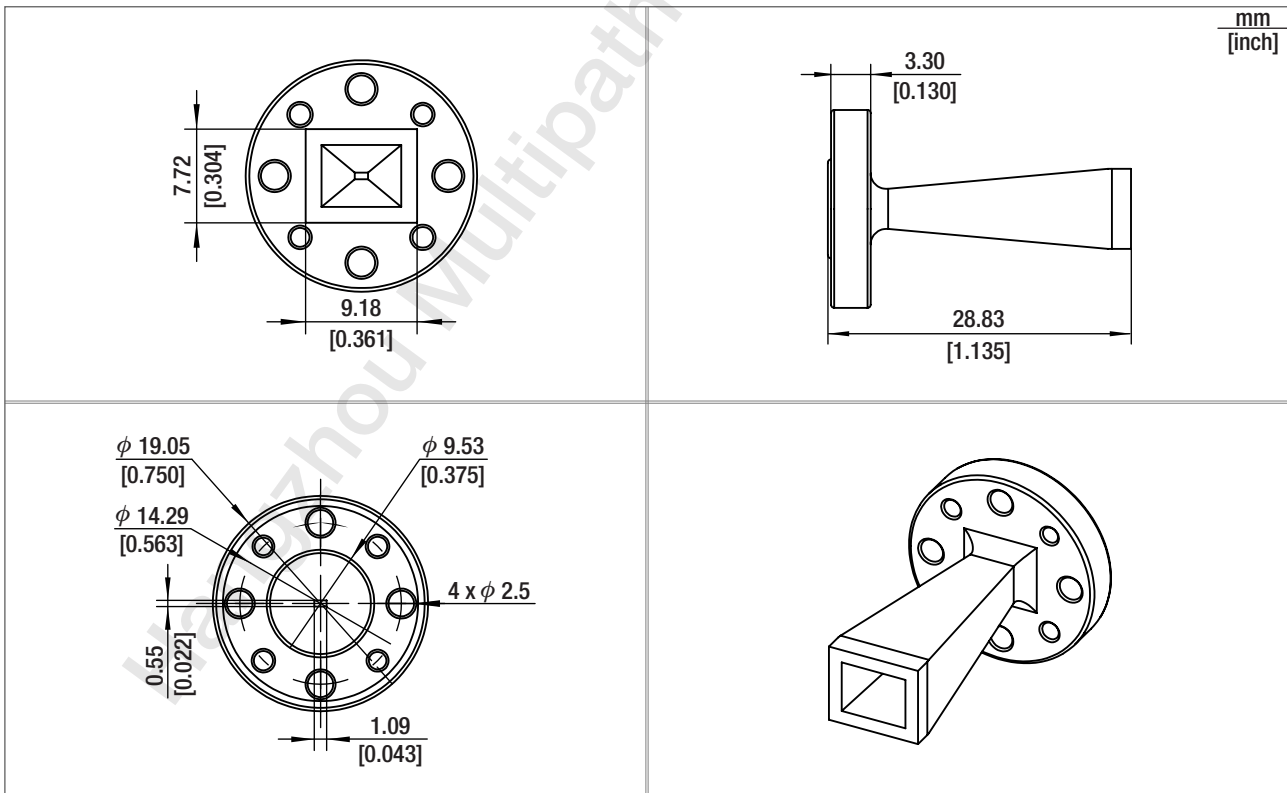
Hangzhou Multipath Electronics Co., Ltd. is a high-tech enterprise specializing in the research, production and sales of various high-performance standard gain horns, waveguide probes, transparent antennas, MIMO antennas for communication, and phased array radar antennas. The products cover various types of waveguide arrays, patch arrays, dipole arrays, and ultra-wideband angle scanning arrays, and the frequency range covers low frequency to millimeter waves. The founding team of the company has been deeply involved in the field of electromagnetic array structures for many years and has rich experience in array antenna design. The team first applied the principle of bionics to electromagnetic wave control, and the original wideband angle scanning, low loss, and high precision technology is at the leading level internationally, and related technologies have been applied in many large projects. The founding members currently have more than ten core invention patents in this field, and have published many SCI journal papers.

Hangzhou Multipath Electronics will be dedicated to the research of cutting-edge electromagnetic field technology, to be a leader in antenna arrays, to tap the potential of electromagnetic fields, and to contribute to the development of science and technology.

⚙️ Product specifications

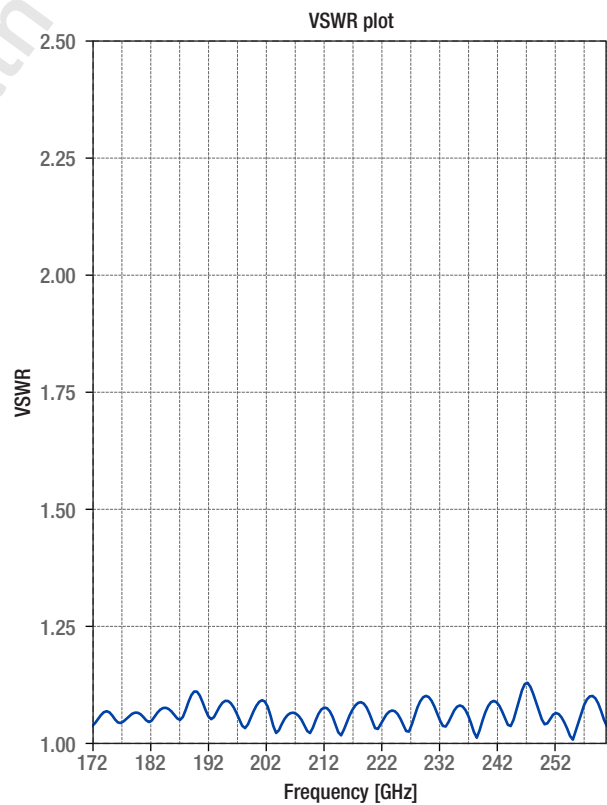
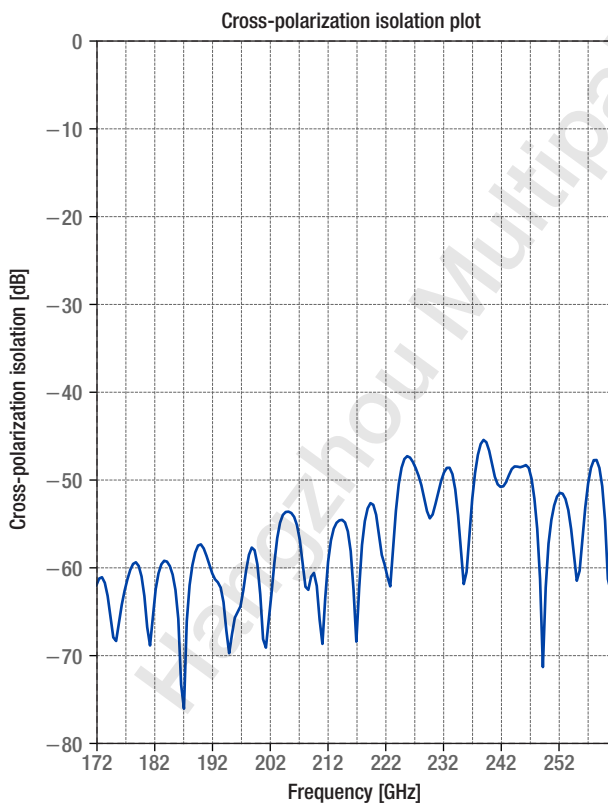
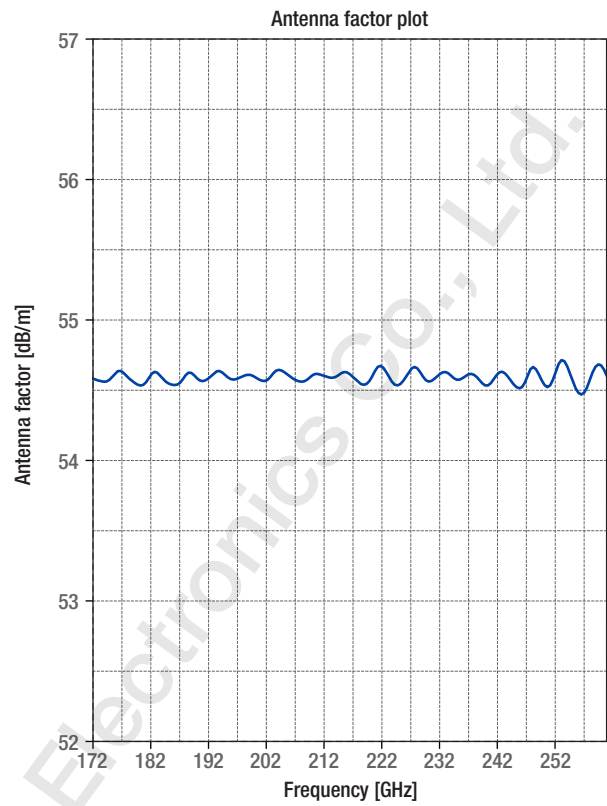
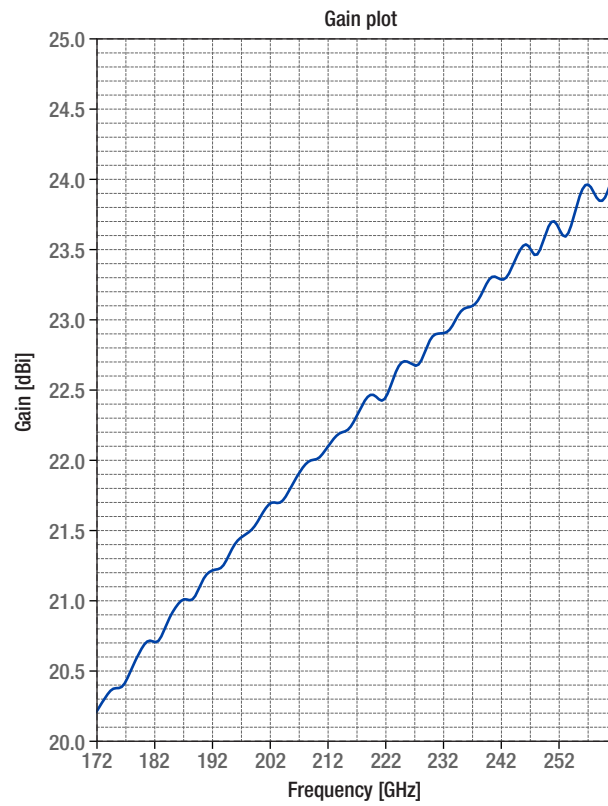
Part number	HA-WR4-20	Polarization	Single linear
Antenna type	Pyramidal horn	Gain [dBi]	20 Typ.
Frequency range [GHz]	172 – 261	3dB beamwidth [deg]	E-plane: 14 Typ. H-plane: 14 Typ.
Waveguide band	WR4	Cross-polarization isolation [dB]	55 Typ.
Dimensions (H x W x L) [mm; inch]	19.05 x 19.05 x 28.83; 0.75 x 0.75 x 1.14	VSWR	1.10 Typ.
Weight (approx.) [kg; lb]	0.01; 0.022	RF connector	APF4
Material	Cu (Gold plated)		

• Dimensional drawing: horn, HA-WR4-20



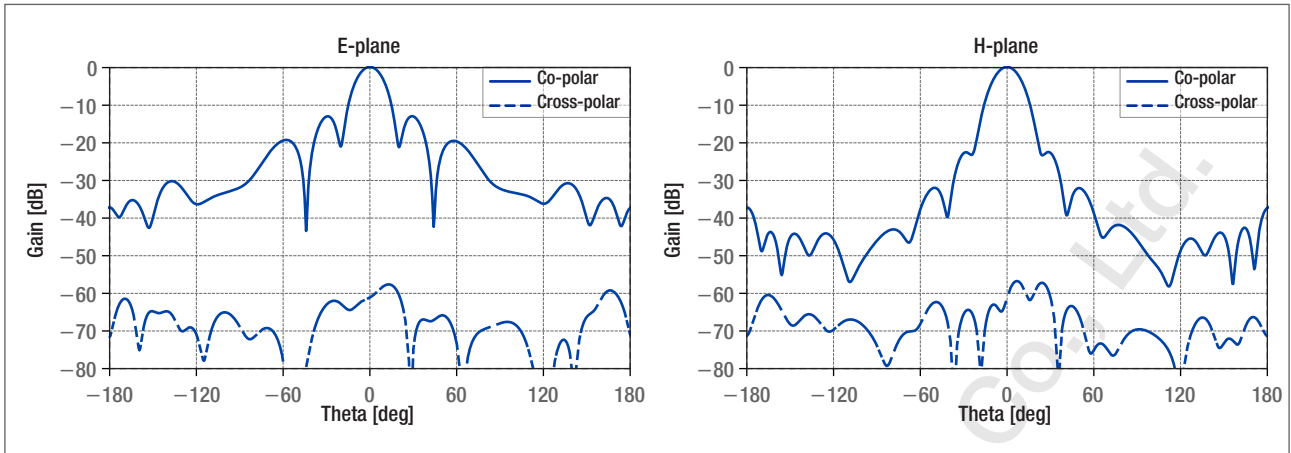
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

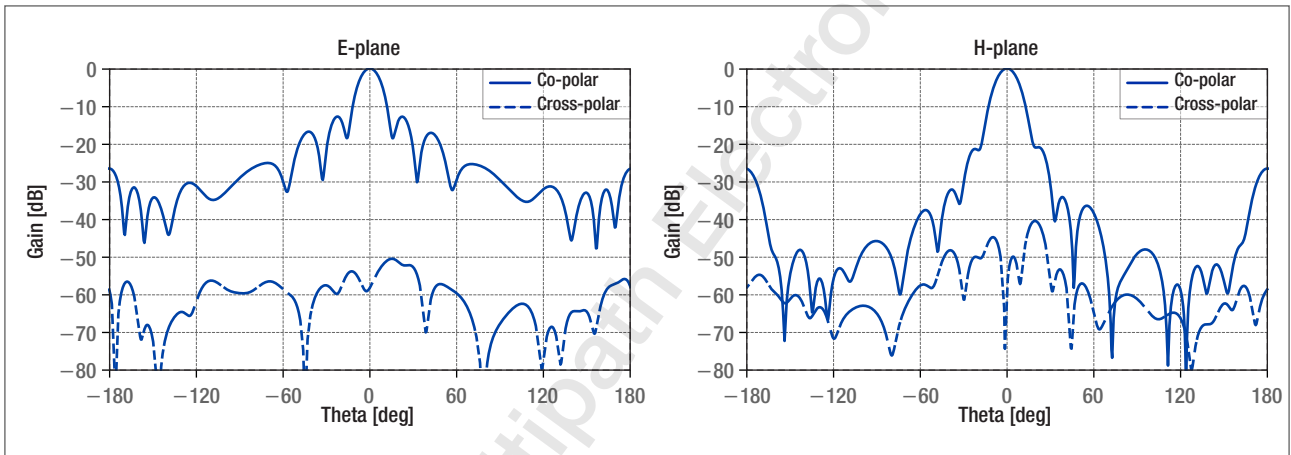


• Radiation patterns

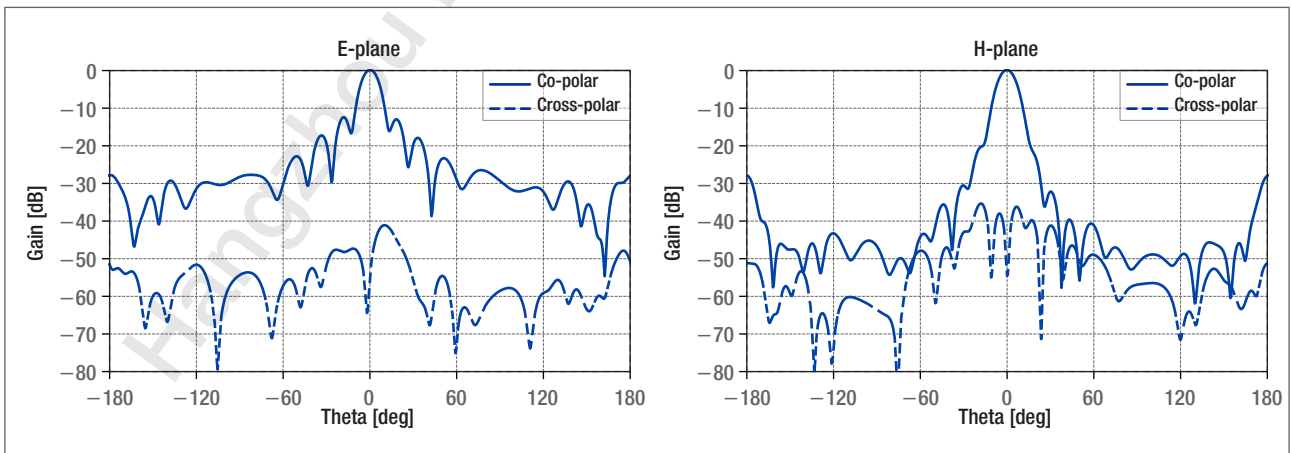
Patterns @ 172 GHz



Patterns @ 216 GHz



Patterns @ 261 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
172	20.34	54.56	-60.94	1.04
176	20.48	54.62	-62.48	1.04
180	20.77	54.53	-66.65	1.05
184	20.94	54.55	-59.66	1.07
188	21.06	54.61	-59.54	1.08
192	21.27	54.59	-61.17	1.04
196	21.47	54.56	-64.95	1.07
200	21.64	54.57	-62.89	1.07
204	21.75	54.63	-53.82	1.02
208	22.00	54.55	-62.03	1.04
212	22.13	54.59	-59.17	1.07
216	22.27	54.61	-57.96	1.04
220	22.49	54.55	-52.67	1.06
224	22.65	54.55	-53.34	1.06
228	22.70	54.65	-49.33	1.05
232	22.91	54.59	-49.93	1.06
236	23.09	54.56	-61.72	1.07
240	23.26	54.54	-45.52	1.04
244	23.33	54.61	-49.27	1.04
248	23.49	54.59	-49.68	1.12
252	23.70	54.52	-52.73	1.04
256	23.81	54.55	-61.34	1.00
260	23.84	54.65	-48.45	1.09

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
172	18.06°	17.58°
216	14.56°	14.01°
261	12.36°	11.67°



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