



Standard Waveguide Detectors

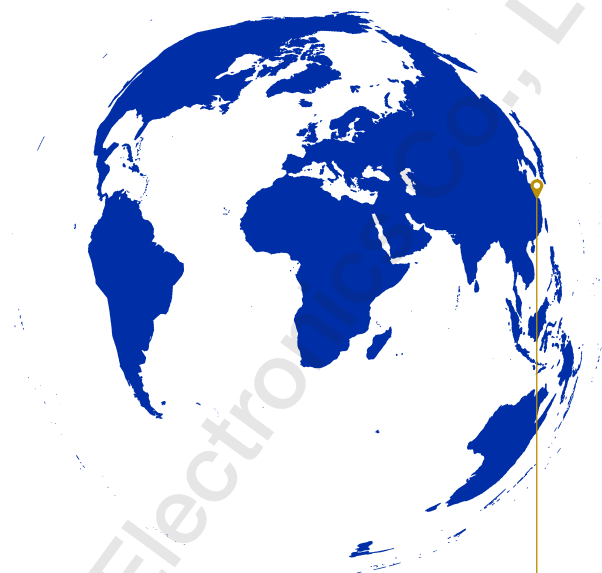
172 - 261 GHz



QR code



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



Company Profile

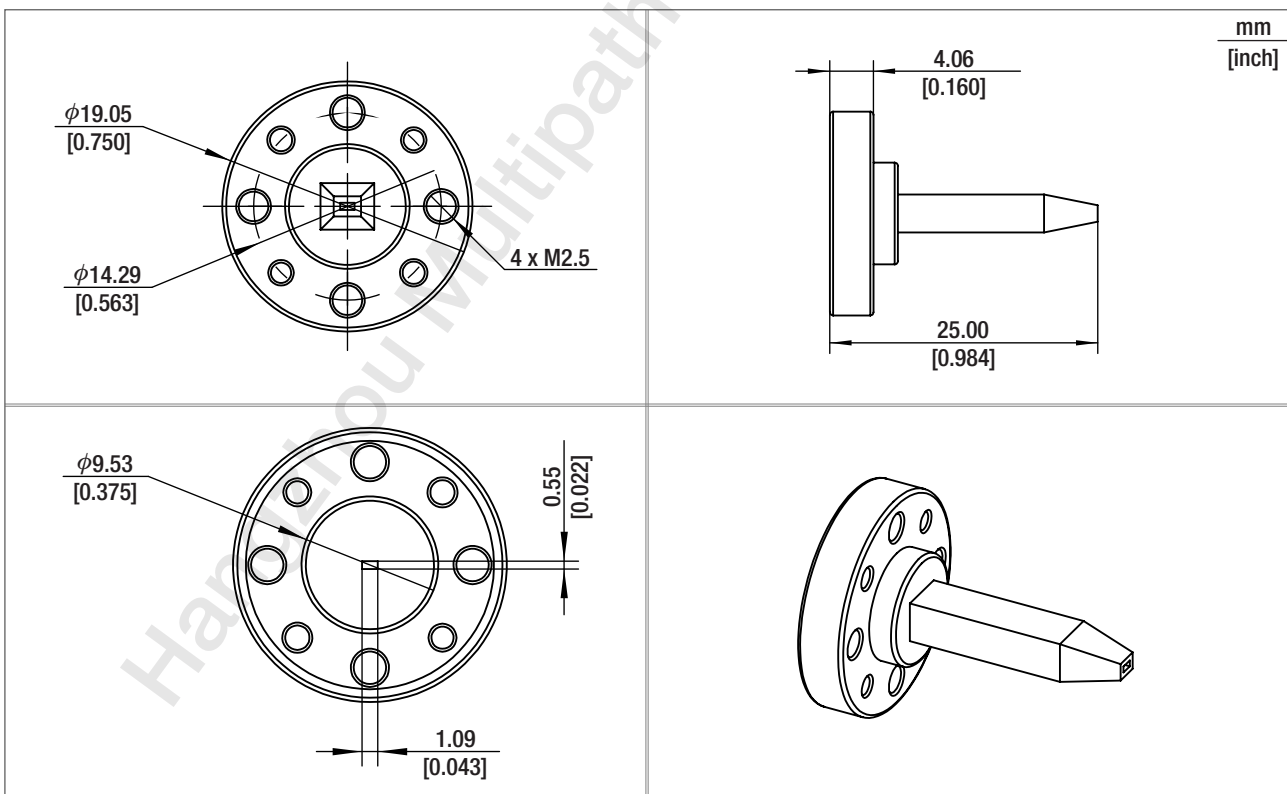
Hangzhou Multipath Electronics Co., Ltd. is a high-tech enterprise specializing in the research, production and sales of various high-performance standard gain horns, waveguide probes, transparent antennas, MIMO antennas for communication, and phased array radar antennas. The products cover various types 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

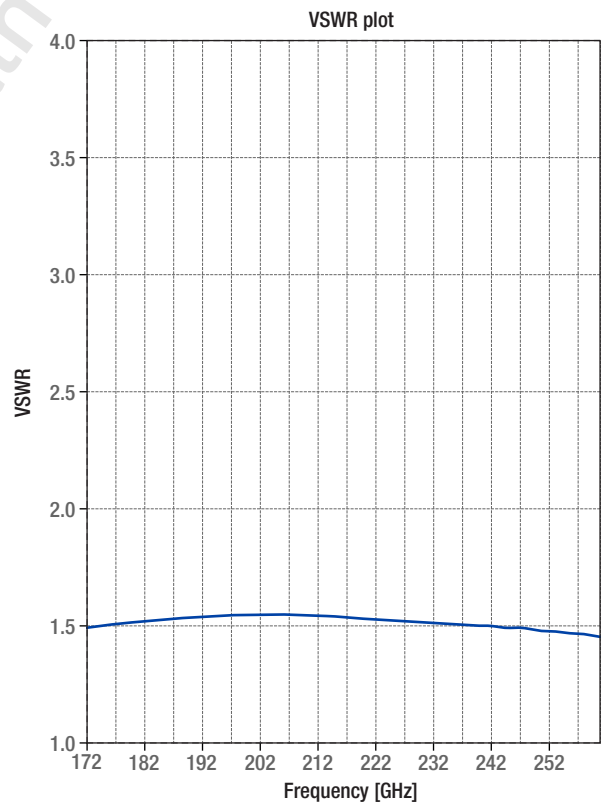
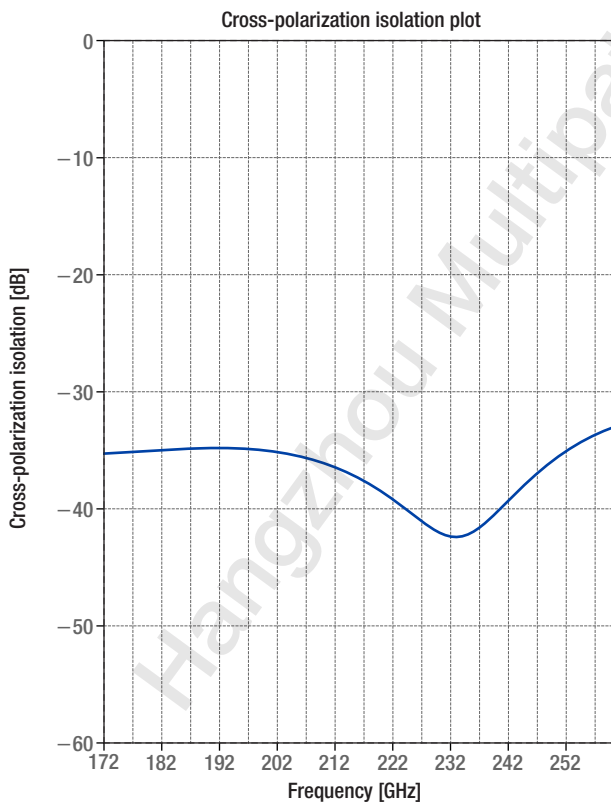
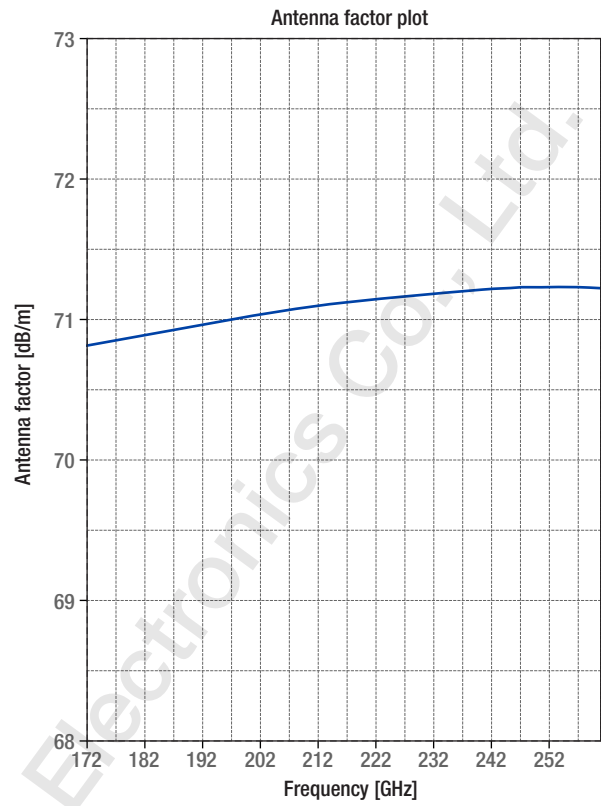
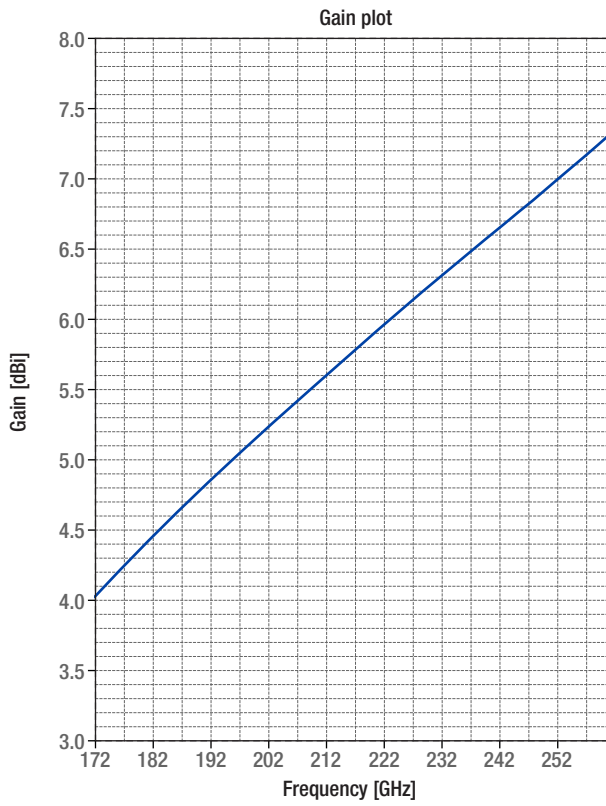
Part number	WD-WR4	Polarization	Single linear
Antenna type	Waveguide detector	Gain [dBi]	6 Typ.
Frequency range [GHz]	172 – 261	3dB beamwidth [deg]	E-plane: 97 Typ. H-plane: 67 Typ.
Waveguide band	WR4	Cross-polarization isolation [dB]	35 Typ.
Dimensions (H x W x L) [mm; inch]	19.05 x 19.05 x 25.00; 0.75 x 0.75 x 0.98	VSWR	1.5 Typ.
Weight (approx.) [kg; lb]	0.01; 0.022	RF connector	APF4
Material	Cu (Gold plated)		

• Dimensional drawing: detectors, WD-WR4



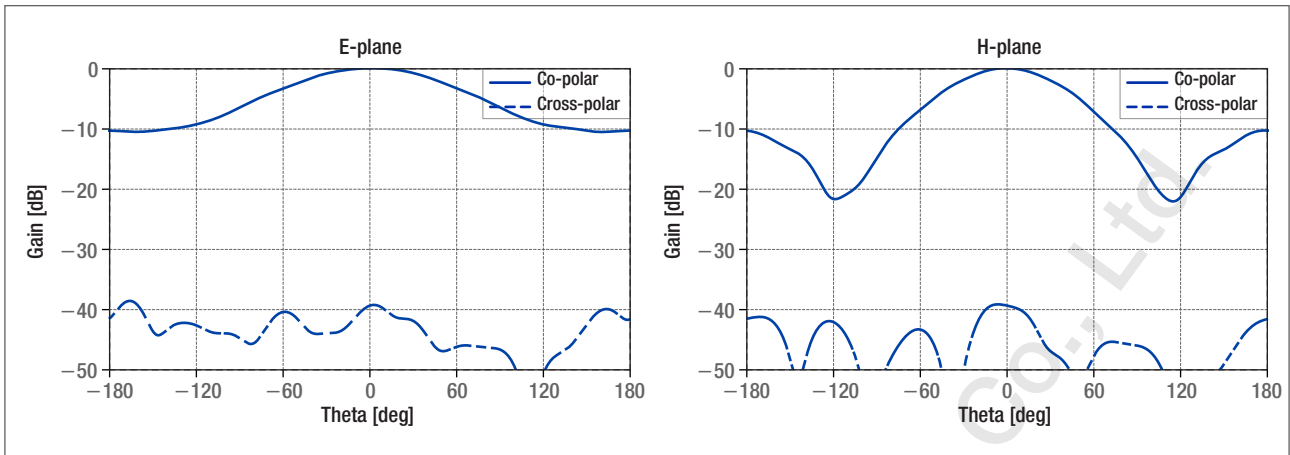
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

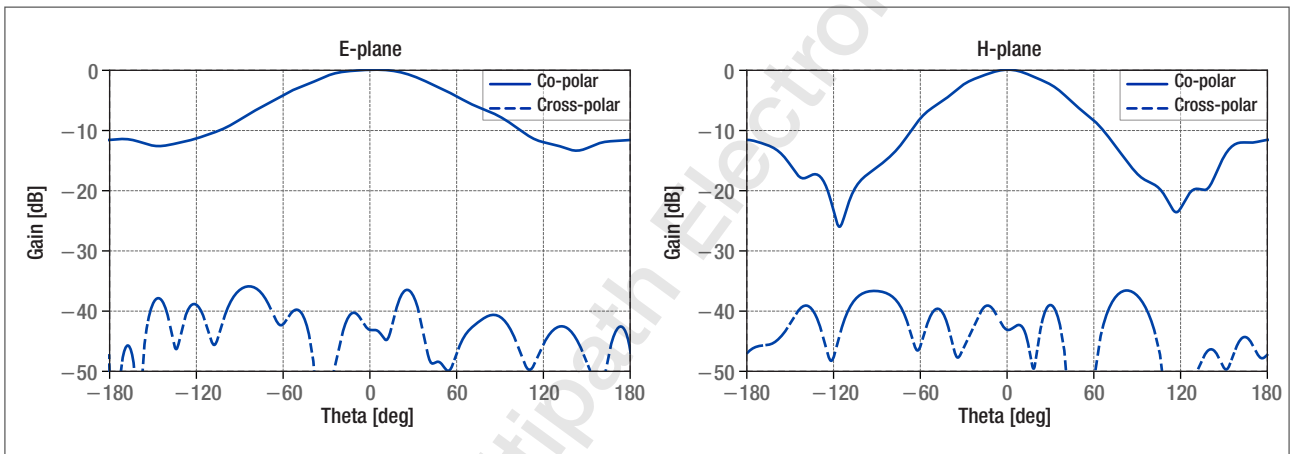


• Radiation patterns

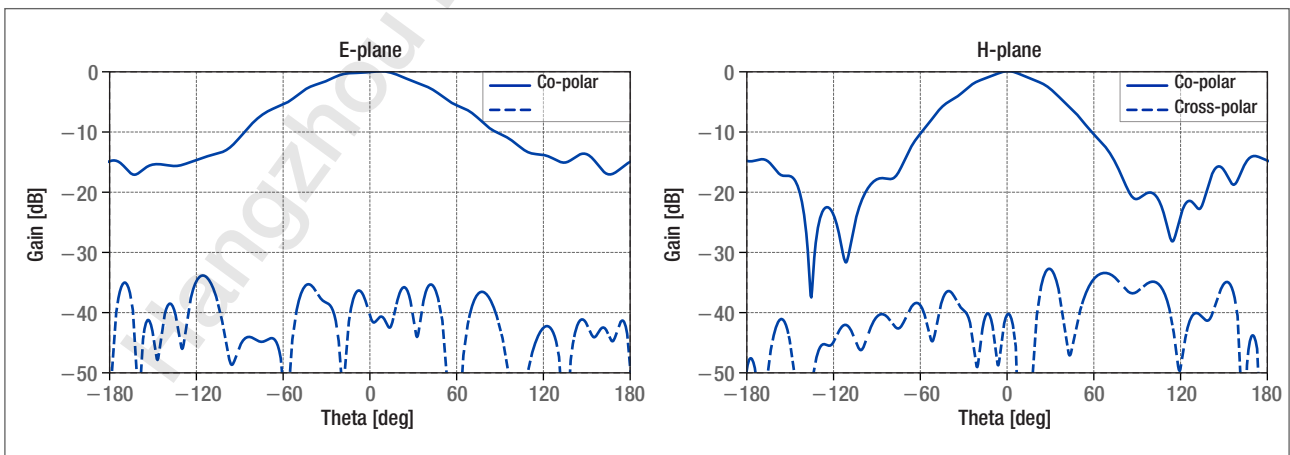
Patterns @ 172 GHz



Patterns @ 216 GHz



Patterns @ 261 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
172	4.07	70.83	-35.13	1.49
176	4.24	70.86	-35.02	1.51
180	4.41	70.89	-34.90	1.52
184	4.57	70.92	-34.78	1.53
188	4.73	70.95	-34.70	1.53
192	4.88	70.98	-34.67	1.54
196	5.03	71.00	-34.73	1.54
200	5.18	71.03	-34.90	1.55
204	5.32	71.06	-35.21	1.55
208	5.47	71.08	-35.67	1.55
212	5.61	71.11	-36.33	1.54
216	5.75	71.13	-37.20	1.54
220	5.89	71.14	-38.34	1.53
224	6.03	71.16	-39.72	1.52
228	6.17	71.18	-41.19	1.52
232	6.31	71.19	-42.21	1.51
236	6.44	71.21	-41.97	1.51
240	6.58	71.22	-40.46	1.50
244	6.71	71.23	-38.54	1.49
248	6.84	71.24	-36.74	1.49
252	6.98	71.24	-35.23	1.48
256	7.12	71.24	-34.03	1.47
260	7.25	71.24	-33.12	1.46

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
172	112.13°	76.37°
216	97.36°	66.86°
261	87.39°	58.56°



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