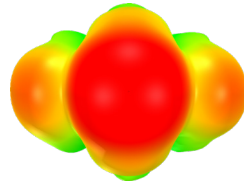




Standard Gain Horn Antennas

113 - 173 GHz, 15 dBi

Radiation pattern



QR code



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

Company Profile

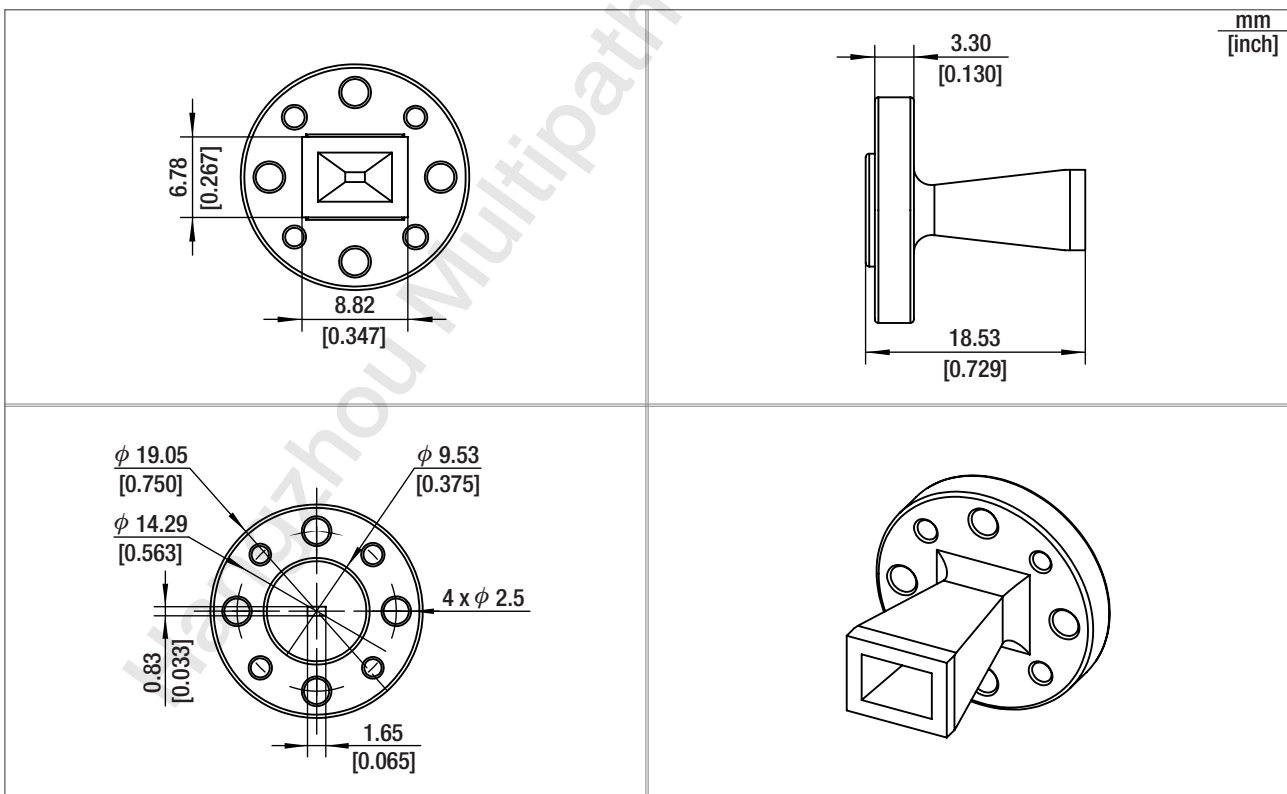
Hangzhou Multipath Electronics Co., Ltd. is a high-tech enterprise specializing in the research, production and sales of various high-performance standard gain horns, waveguide probes, transparent antennas, MIMO antennas for communication, and phased array radar antennas. The products cover various types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

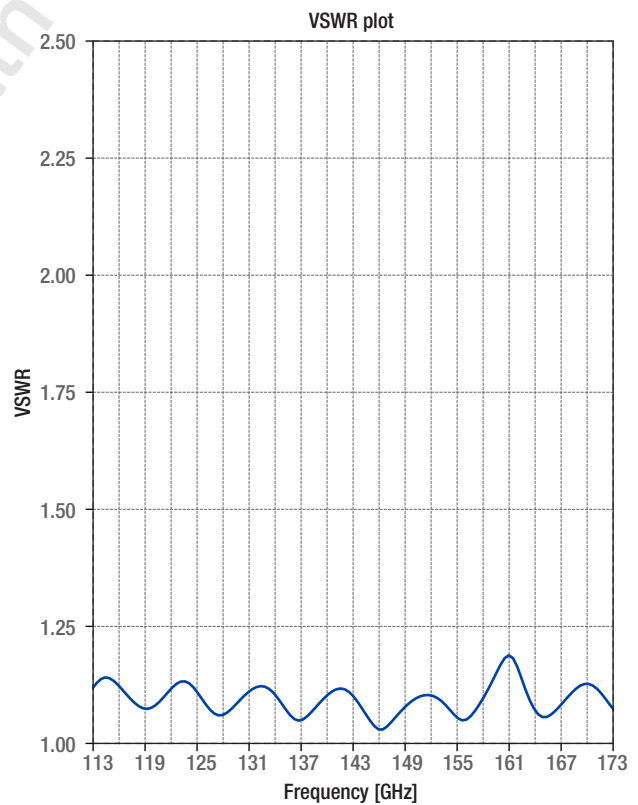
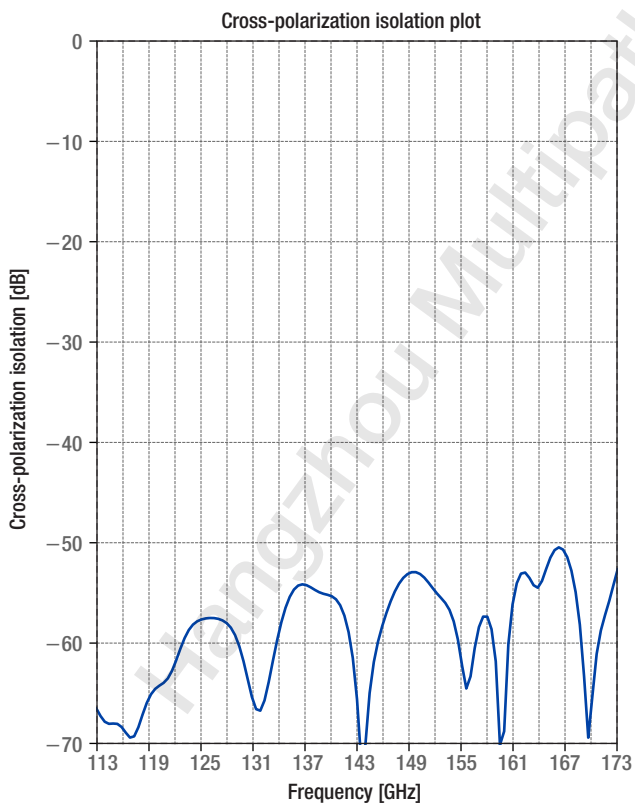
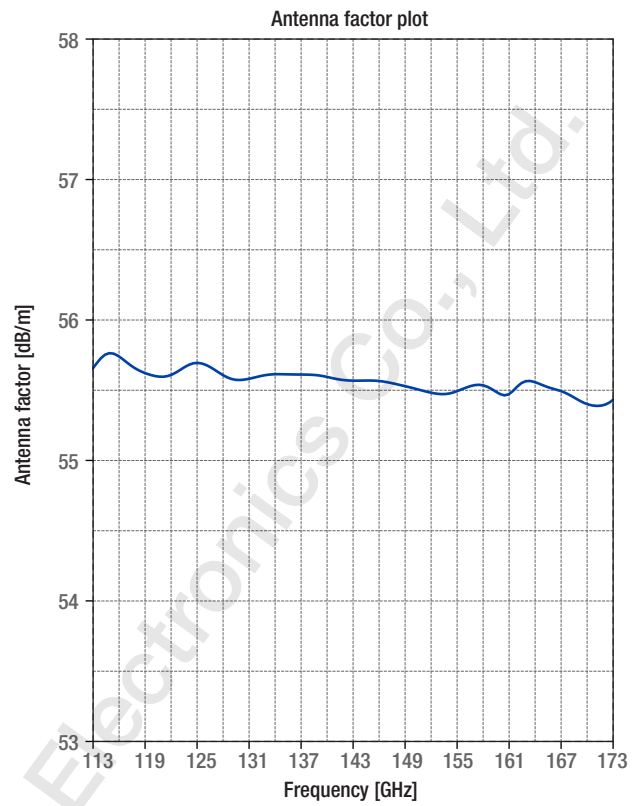
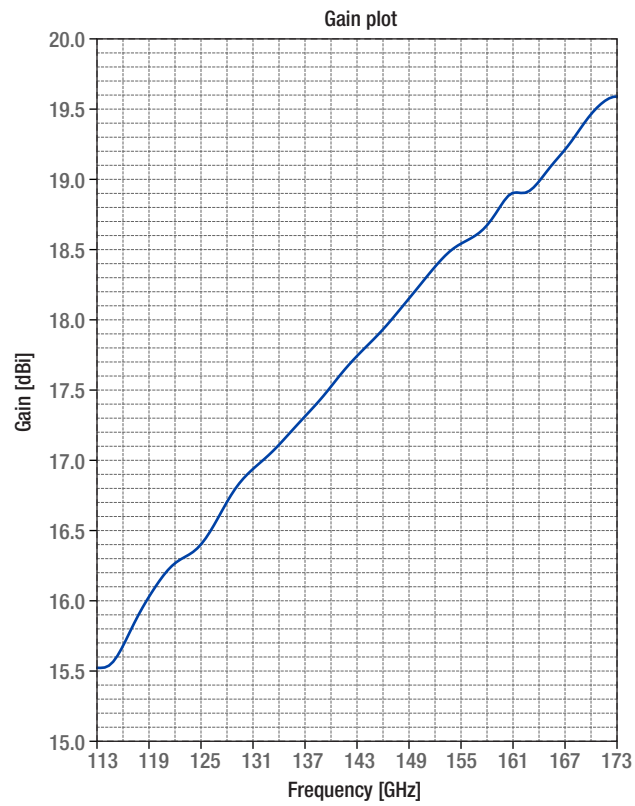
Part number	HA-WR7-15	Polarization	Single linear
Antenna type	Pyramidal horn	Gain [dBi]	15 Typ.
Frequency range [GHz]	113 – 173	3dB beamwidth [deg]	E-plane: 25 Typ. H-plane: 25 Typ.
Waveguide band	WR7	Cross-polarization isolation [dB]	60 Typ.
Dimensions (H x W x L) [mm; inch]	19.05 x 19.05 x 18.53; 0.75 x 0.75 x 0.73	VSWR	1.15 Typ.
Weight (approx.) [kg; lb]	0.01; 0.022	RF connector	UG-387/U-M
Material	Cu (Gold plated)		

• Dimensional drawing: horn, HA-WR7-15



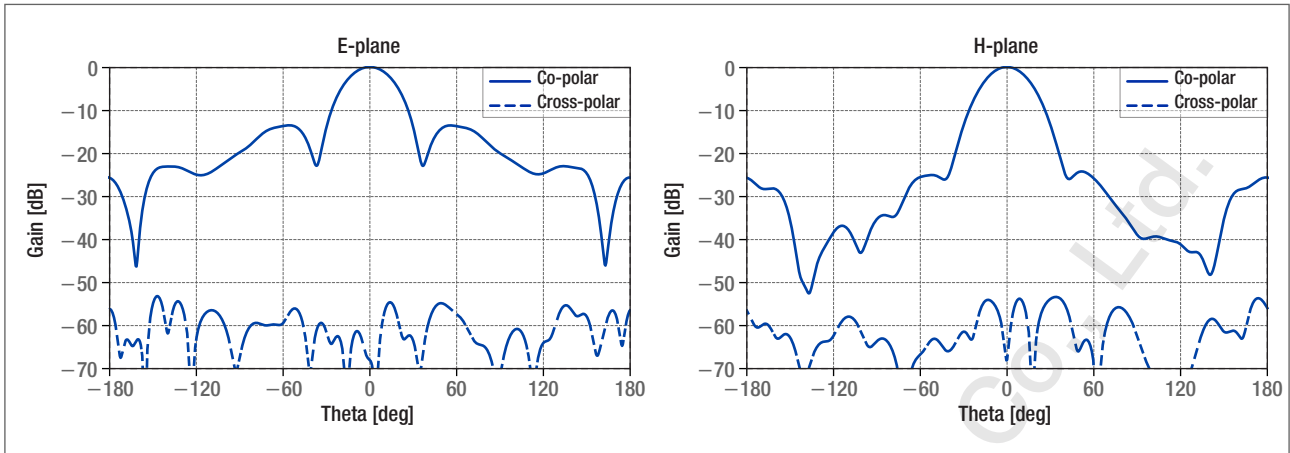
Electrical characteristics

Gain & Antenna factor & Cross-polarization isolation & VSWR

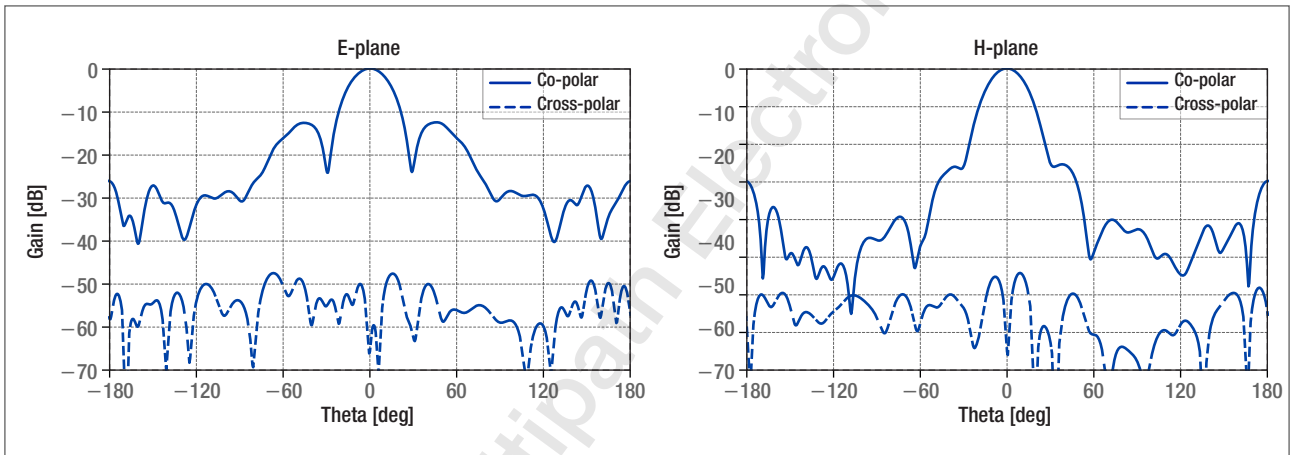


• Radiation patterns

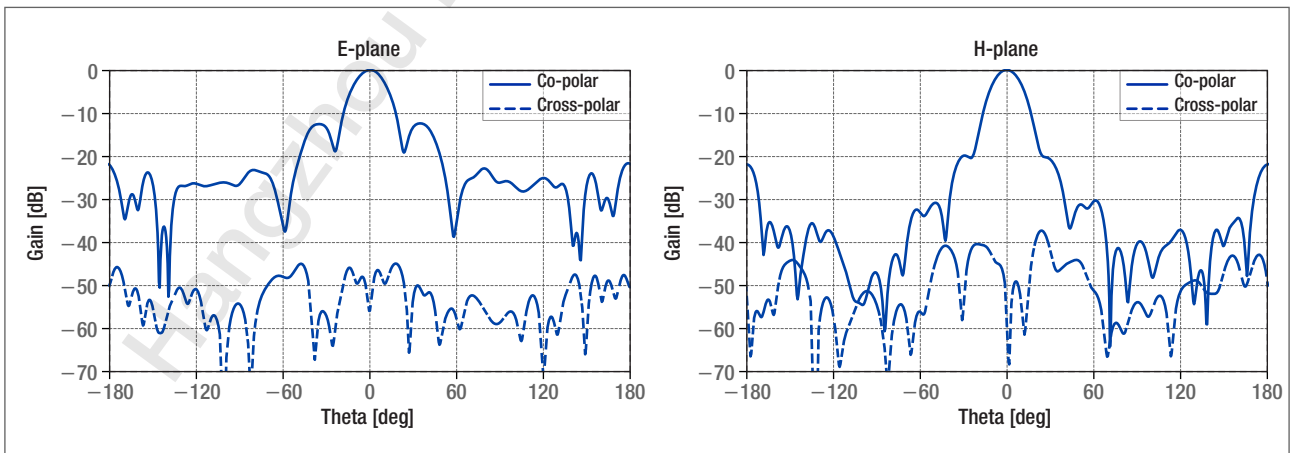
Patterns @ 113 GHz



Patterns @ 143 GHz



Patterns @ 173 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
113	15.54	55.71	-67.76	1.13
116	15.79	55.69	-69.34	1.10
119	16.11	55.59	-64.48	1.07
122	16.30	55.61	-60.45	1.12
125	16.45	55.68	-57.44	1.09
128	16.76	55.58	-58.36	1.06
131	16.96	55.57	-66.50	1.11
134	17.13	55.60	-57.83	1.09
137	17.33	55.60	-54.11	1.04
140	17.53	55.58	-55.22	1.09
143	17.74	55.55	-65.50	1.09
146	17.93	55.55	-58.20	1.02
149	18.14	55.52	-53.01	1.07
152	18.36	55.47	-54.40	1.09
155	18.53	55.47	-59.56	1.05
158	18.64	55.52	-57.25	1.07
161	18.88	55.45	-60.00	1.17
164	18.94	55.55	-54.12	1.08
167	19.15	55.49	-50.33	1.06
170	19.39	55.41	-63.19	1.11
173	19.57	55.38	-55.68	1.09

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
113	29.51°	31.07°
143	23.28°	25.31°
173	18.98°	20.47°



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