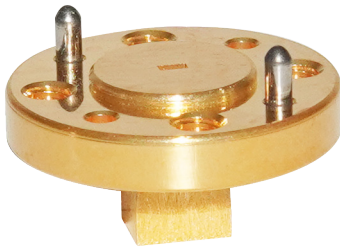


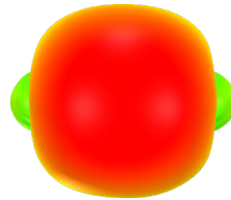


# Standard Gain Horn Antennas

113 - 173 GHz, 10 dBi



Radiation pattern



QR code



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

## Company Profile

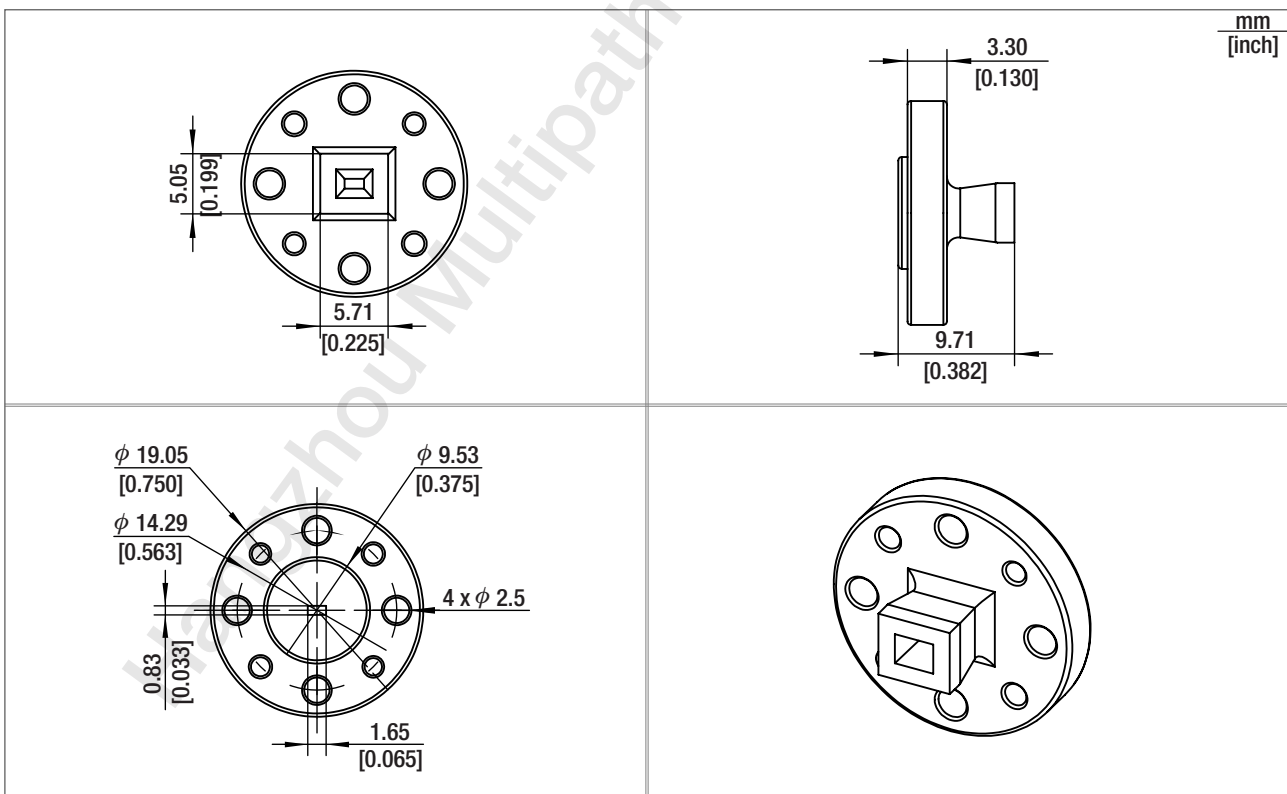
Hangzhou Multipath Electronics Co., Ltd. is a high-tech enterprise specializing in the research, production and sales of various high-performance standard gain horns, waveguide probes, transparent antennas, MIMO antennas for communication, and phased array radar antennas. The products cover various types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

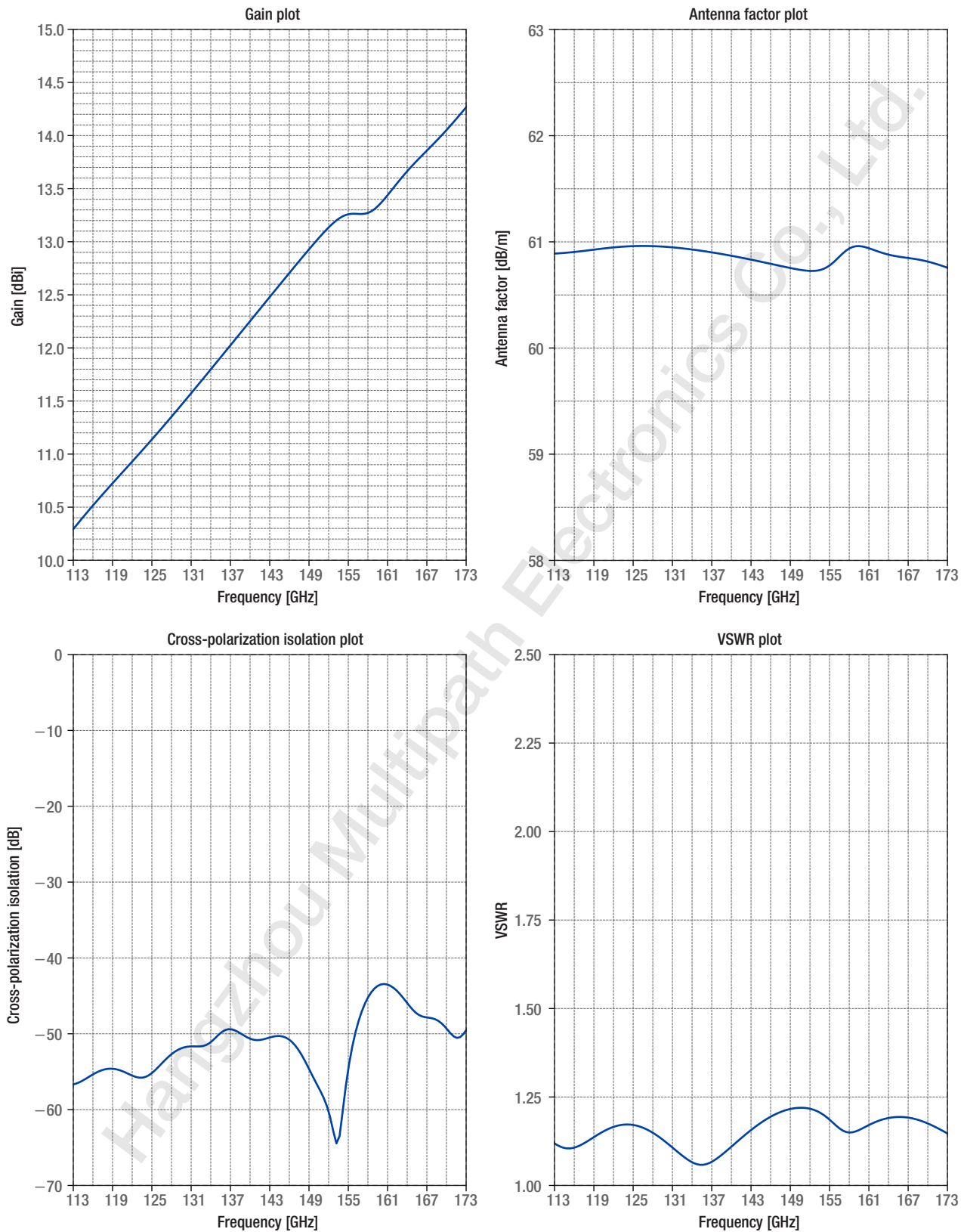
<b>Part number</b>	HA-WR7-10	<b>Polarization</b>	Single linear
<b>Antenna type</b>	Pyramidal horn	<b>Gain [dBi]</b>	10 Typ.
<b>Frequency range [GHz]</b>	113 – 173	<b>3dB beamwidth [deg]</b>	E-plane: 45 Typ. H-plane: 45 Typ.
<b>Waveguide band</b>	WR7	<b>Cross-polarization isolation [dB]</b>	50 Typ.
<b>Dimensions (H x W x L) [mm; inch]</b>	19.05 x 19.05 x 9.71; 0.75 x 0.75 x 0.38	<b>VSWR</b>	1.15 Typ.
<b>Weight (approx.) [kg; lb]</b>	0.01; 0.022	<b>RF connector</b>	UG-387/U-M
<b>Material</b>	Cu (Gold plated)		

• Dimensional drawing: horn, HA-WR7-10



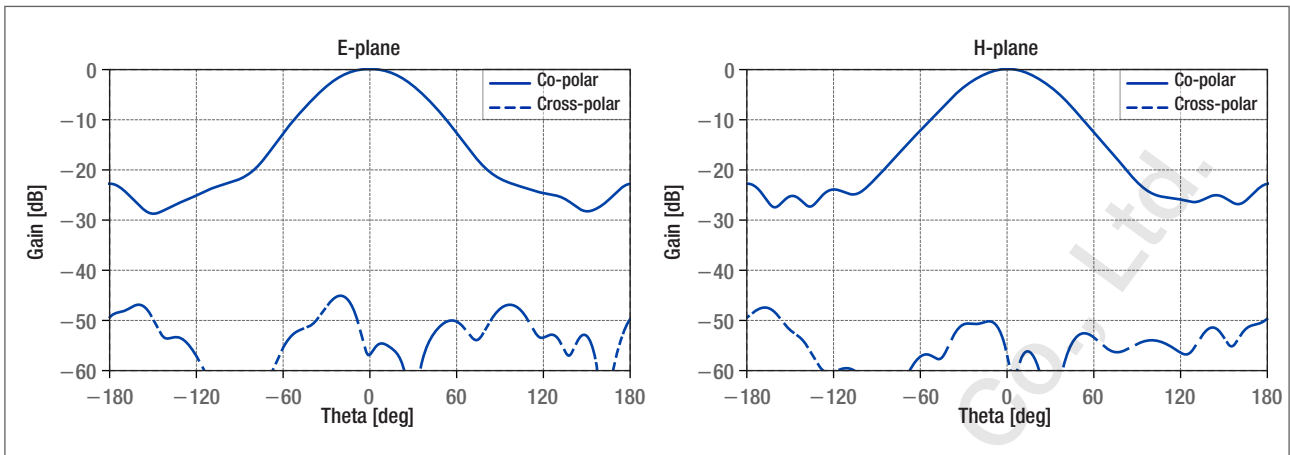
## Electrical characteristics

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

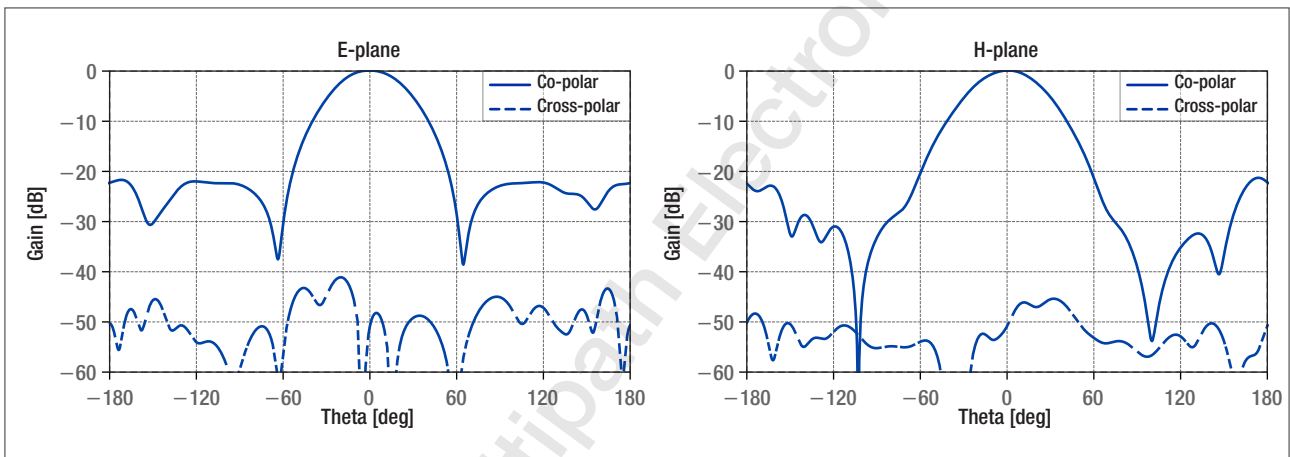


## • Radiation patterns

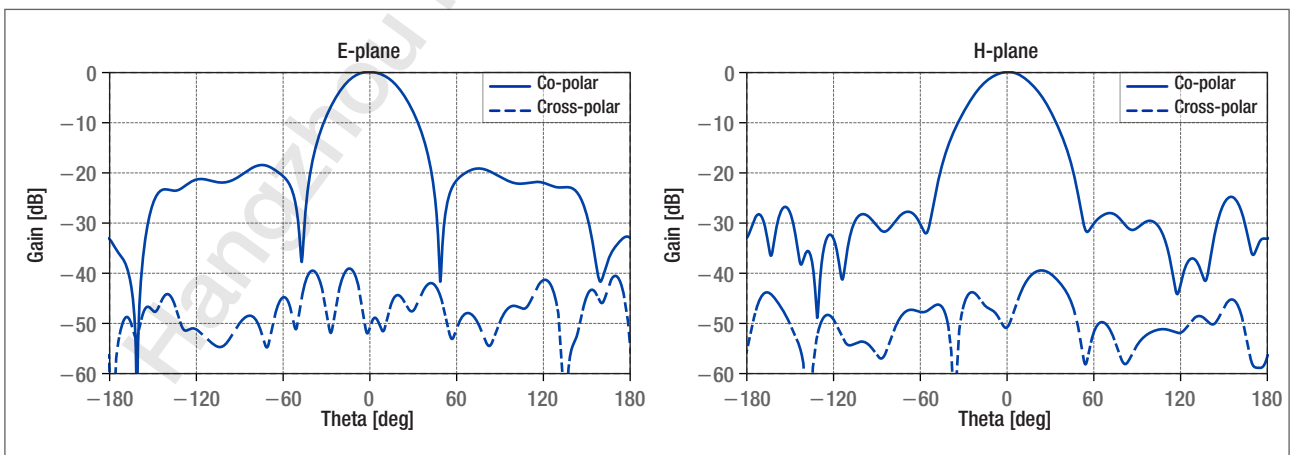
Patterns @ 113 GHz



Patterns @ 143 GHz



Patterns @ 173 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
113	10.37	60.88	-56.63	1.10
116	10.58	60.90	-55.21	1.10
119	10.78	60.92	-54.93	1.14
122	10.98	60.94	-55.93	1.16
125	11.18	60.95	-54.99	1.16
128	11.39	60.94	-52.61	1.13
131	11.60	60.93	-51.87	1.09
134	11.82	60.91	-51.10	1.05
137	12.04	60.88	-49.62	1.06
140	12.26	60.85	-50.88	1.10
143	12.48	60.82	-50.69	1.15
146	12.70	60.78	-50.93	1.18
149	12.91	60.74	-54.53	1.21
152	13.11	60.71	-59.75	1.21
155	13.25	60.75	-56.98	1.18
158	13.26	60.90	-46.19	1.14
161	13.39	60.93	-43.62	1.16
164	13.61	60.88	-45.45	1.18
167	13.80	60.84	-47.91	1.18
170	13.99	60.81	-48.78	1.17
173	14.19	60.76	-50.63	1.15

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
113	54.34°	56.30°
143	44.64°	45.12°
173	37.23°	37.89°



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