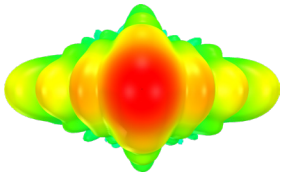
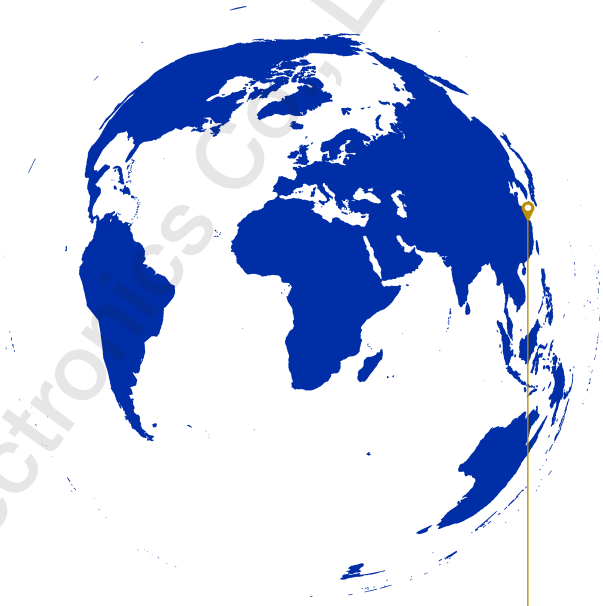
Standard Gain Horn Antennas

92.2 - 140.0 GHz, 20 dBi

Radiation pattern



QR code



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

Company Profile

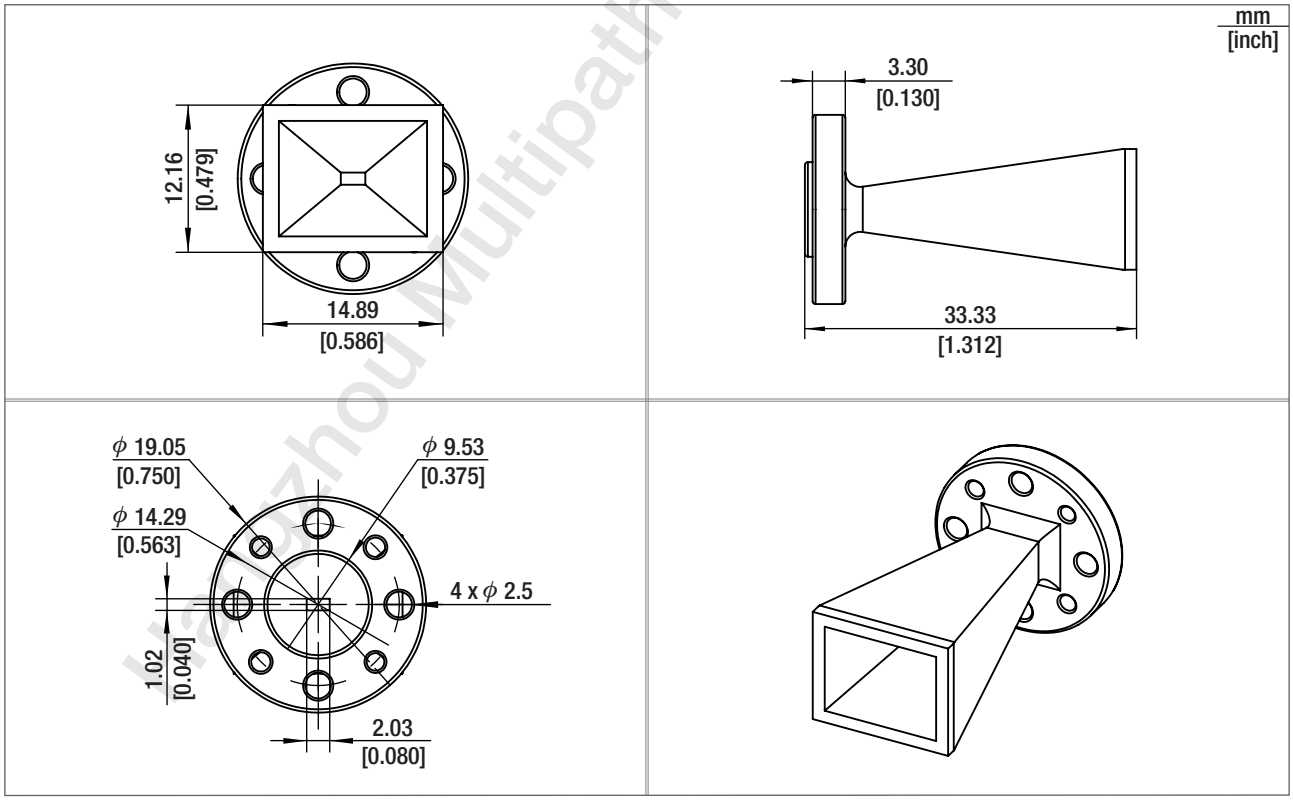
Hangzhou Multipath Electronics Co., Ltd. is a high-tech enterprise specializing in the research, production and sales of various high-performance standard gain horns, waveguide probes, transparent antennas, MIMO antennas for communication, and phased array radar antennas. The products cover various types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

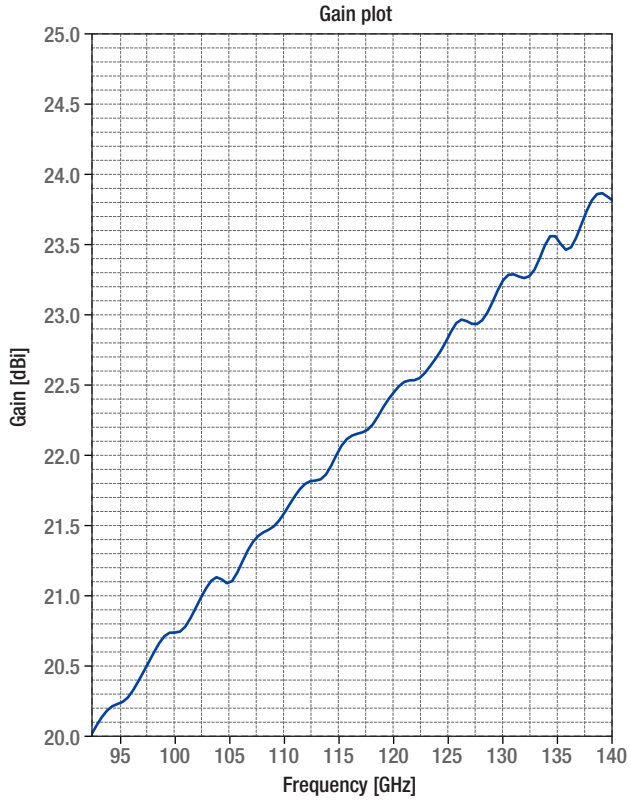
Part number	HA-WR8-20	**Polarization**	Single linear
Antenna type	Pyamidal horn	**Gain [dBi]**	20 Typ.
Frequency range [GHz]	92.2 – 140.0	**3dB beamwidth [deg]**	E-plane: 14 Typ. H-plane: 14 Typ.
Waveguide band	WR8	**Cross-polarization isolation [dB]**	60 Typ.
Dimensions (H x W x L) [mm; inch]	19.05 x 19.05 x 33.33; 0.75 x 0.75 x 1.31	**VSWR**	1.10 Typ.
Weight (approx.) [kg; lb]	0.02; 0.044	**RF connector**	UG-387/U-M
Material	Cu (Gold plated)		

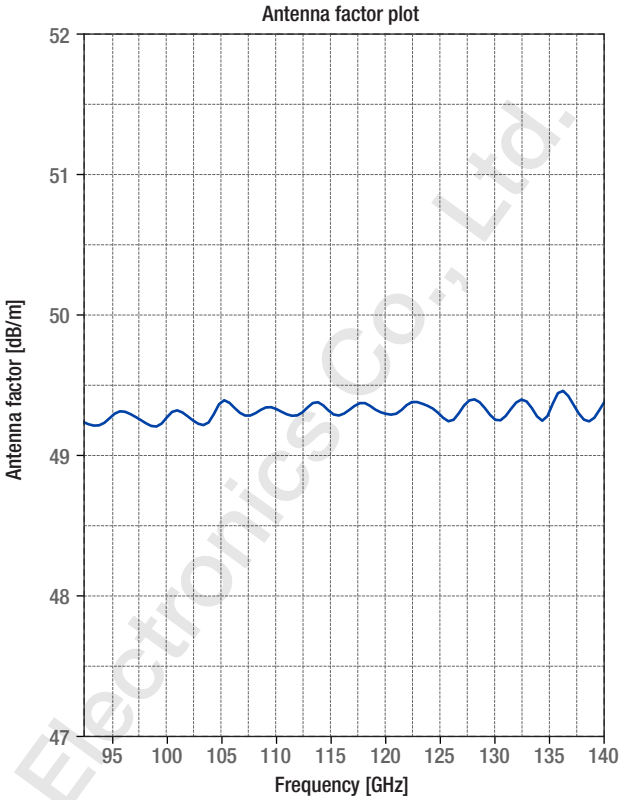
• Dimensional drawing: horn, HA-WR8-10

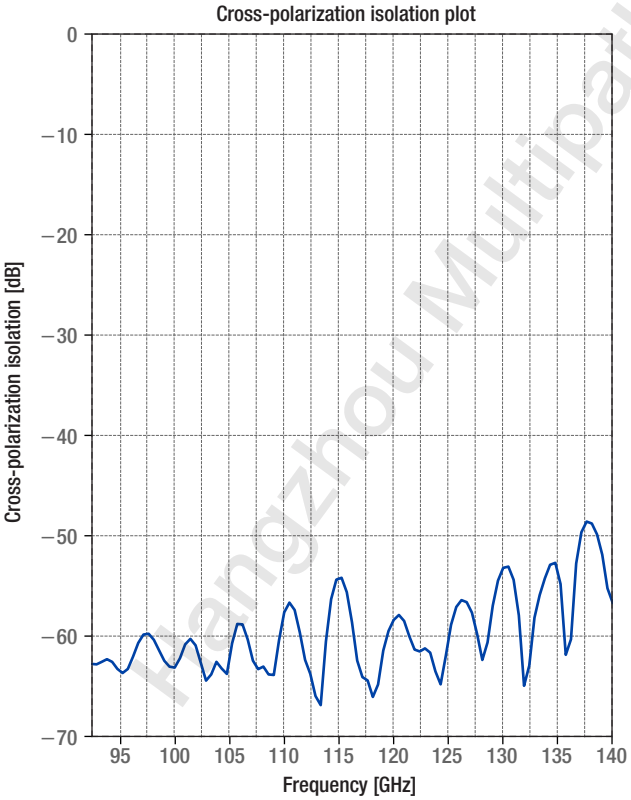


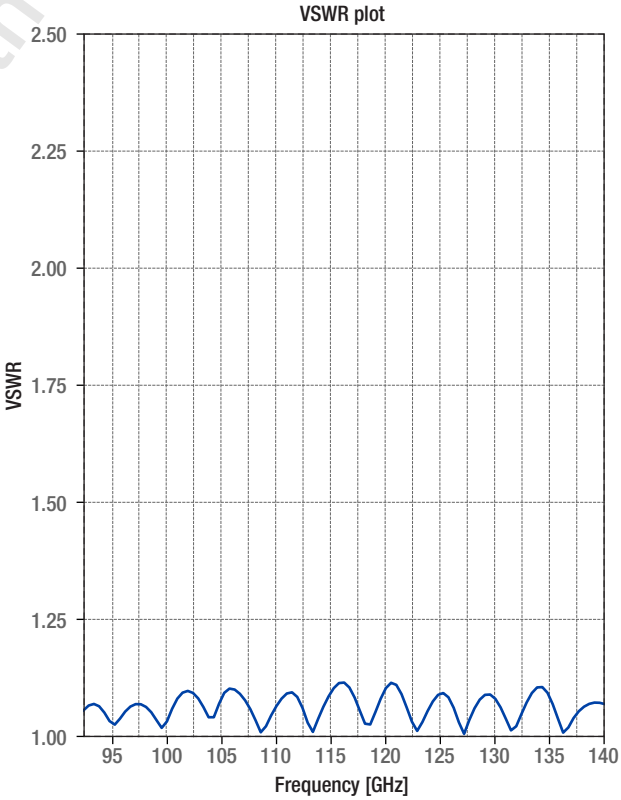
Electrical characteristics

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



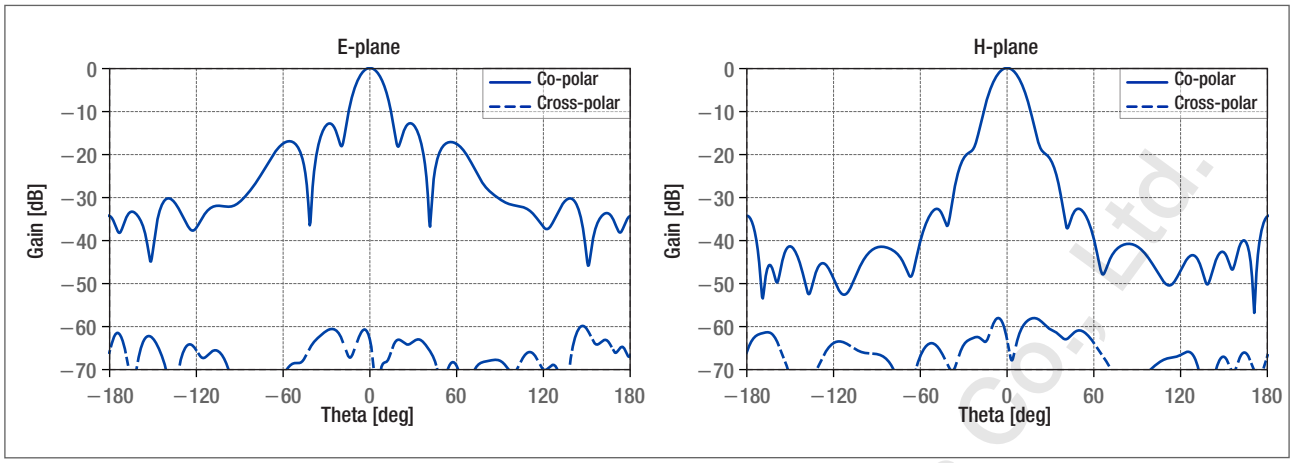




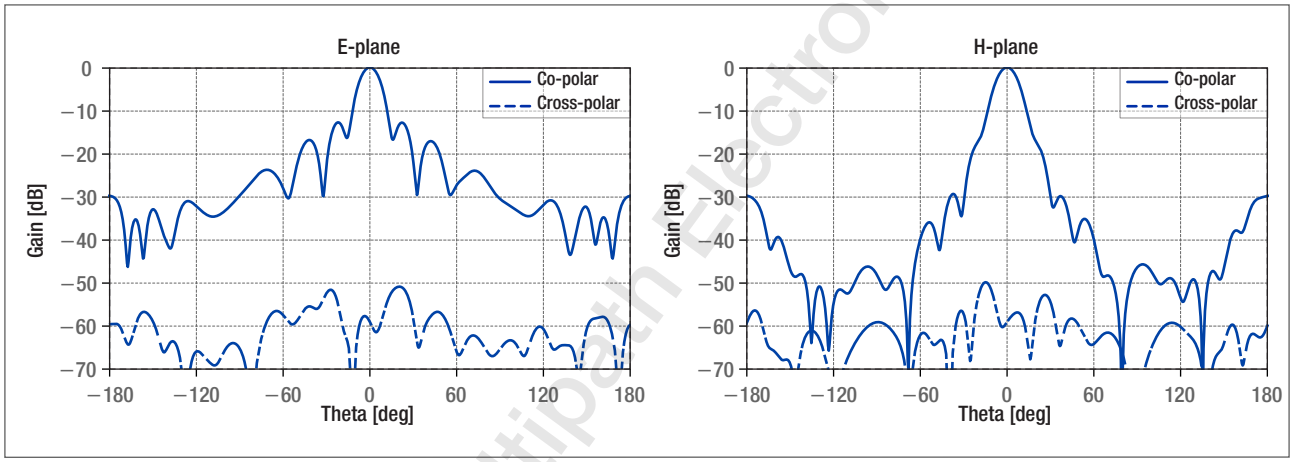


• Radiation patterns

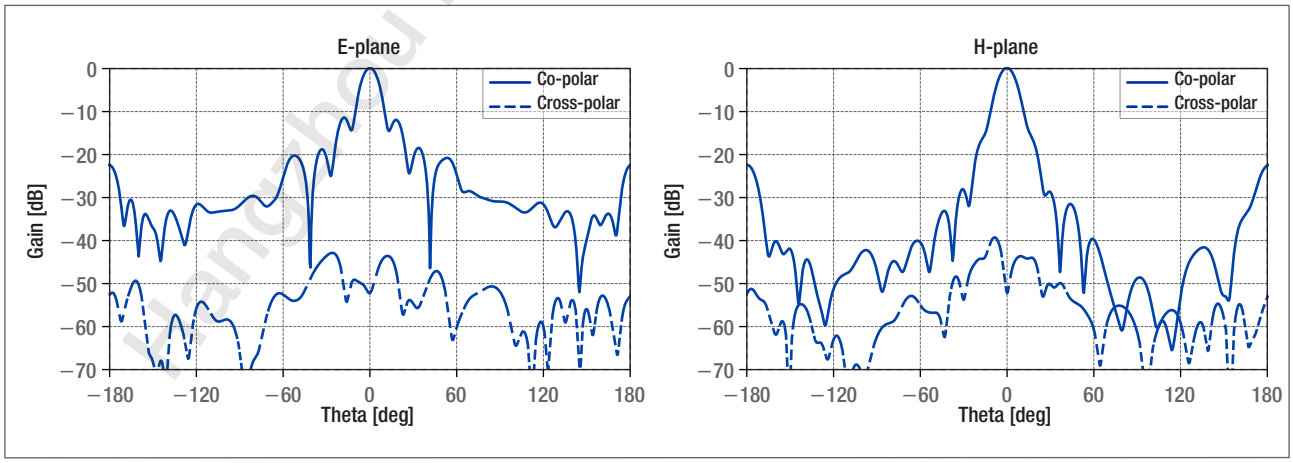
Patterns @ 93 GHz



Patterns @ 116 GHz



Patterns @ 140 GHz



• Data table

Frequency [GHz]	Gain [dBi]	Antenna factor [dB/m]	Cross-polarization isolation [dB]	VSWR
94	20.37	49.29	−63.92	1.02
96	20.57	49.26	−60.08	1.06
98	20.82	49.20	−62.70	1.03
100	20.88	49.31	−61.06	1.07
102	21.14	49.22	−64.68	1.07
104	21.18	49.35	−64.01	1.06
106	21.40	49.29	−60.58	1.08
108	21.55	49.31	−64.06	1.00
110	21.72	49.30	−56.89	1.07
112	21.88	49.30	−64.01	1.05
114	21.98	49.34	−56.54	1.05
116	22.19	49.29	−58.85	1.10
118	22.27	49.36	−66.31	1.02
120	22.49	49.29	−58.62	1.09
122	22.57	49.35	−61.58	1.05
124	22.72	49.34	−63.76	1.05
126	22.96	49.24	−57.32	1.07
128	22.96	49.38	−60.03	1.03
130	23.19	49.28	−54.69	1.08
132	23.28	49.32	−58.15	1.01
134	23.41	49.33	−56.13	1.08
136	23.51	49.35	−55.03	1.06
138	23.64	49.35	−49.85	1.03
140	23.85	49.26	−52.09	1.06

Frequency [GHz]	E-plane, 3dB beamwidth	H-plane, 3dB beamwidth
93	18.22°	17.11°
116	14.88°	13.96°
140	12.46°	11.54°

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