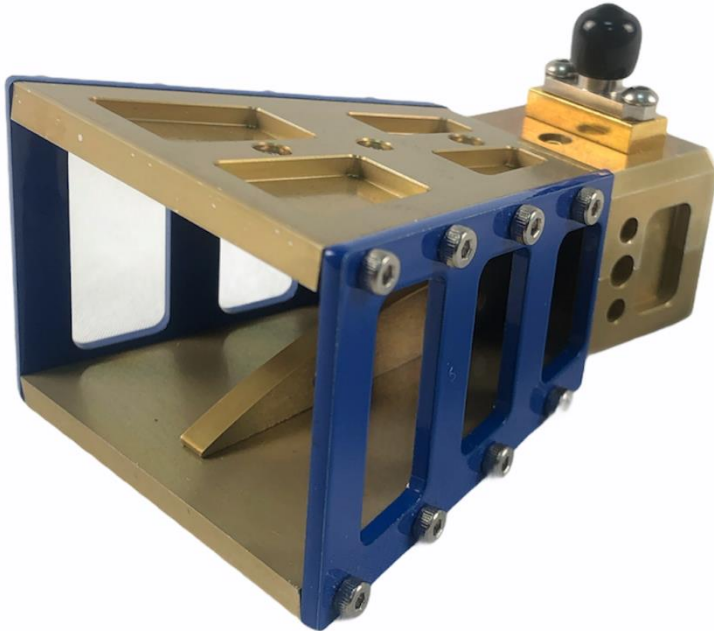


10GHz to 40GHz Double Ridged Broadband Waveguide Horn Antenna



Applications:

- 10GHz to 40GHz Double Ridged Broadband Waveguide Horn Antenna
- 6061 Aluminum metal alloy
- Stainless Steel 2.92mm-female

Features:

- High Power 100W (peak)
- DC Short lighting protection
- Low VSWR
- Uniform Gain
- Consolidated performance data base

Model: HA-1040GA1-KF

LxWxH: 74x55x38mm

Connector: 2.92mm-Female

Styling: Double Ridged Horn

Gain: 7dbi-17dBi

-3db Beamwidth: Horz.29 Deg Vert.25 Deg

N.W.: 90g

Frequency: 10-40GHz

Polarization: Vertical or Horizontal

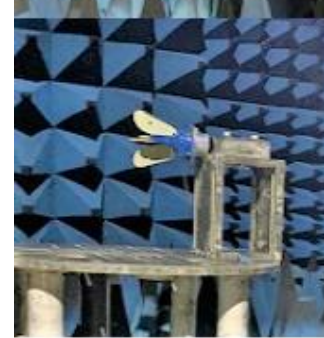
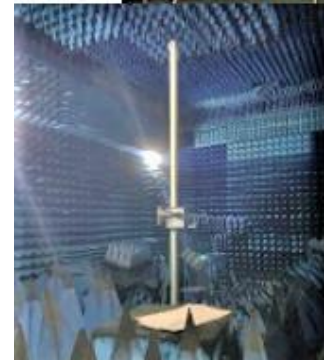
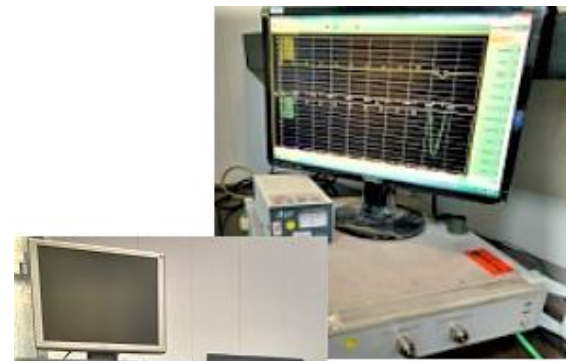
Max Power: 100W (peak)

Electrical Specifications

Frequency Range	10GHz - 40GHz
V.S.W. R	2.5 :1 (Avg)
Antenna Type	Horn
Radiation	Directional
Gain	7-17 dBi
Antenna Factor	40 – 52 dB/m
Polarization	Vertical or Horizontal
Maximum Power	100 Watts
Vertical Beamwidth	25 Deg
Horizontal Beamwidth	29 Deg
Impedance	50 Ohm
FBR	24 db
Antenna Design	Double-Ridge
Connector	2.92mm-Female

Mechanical Specifications

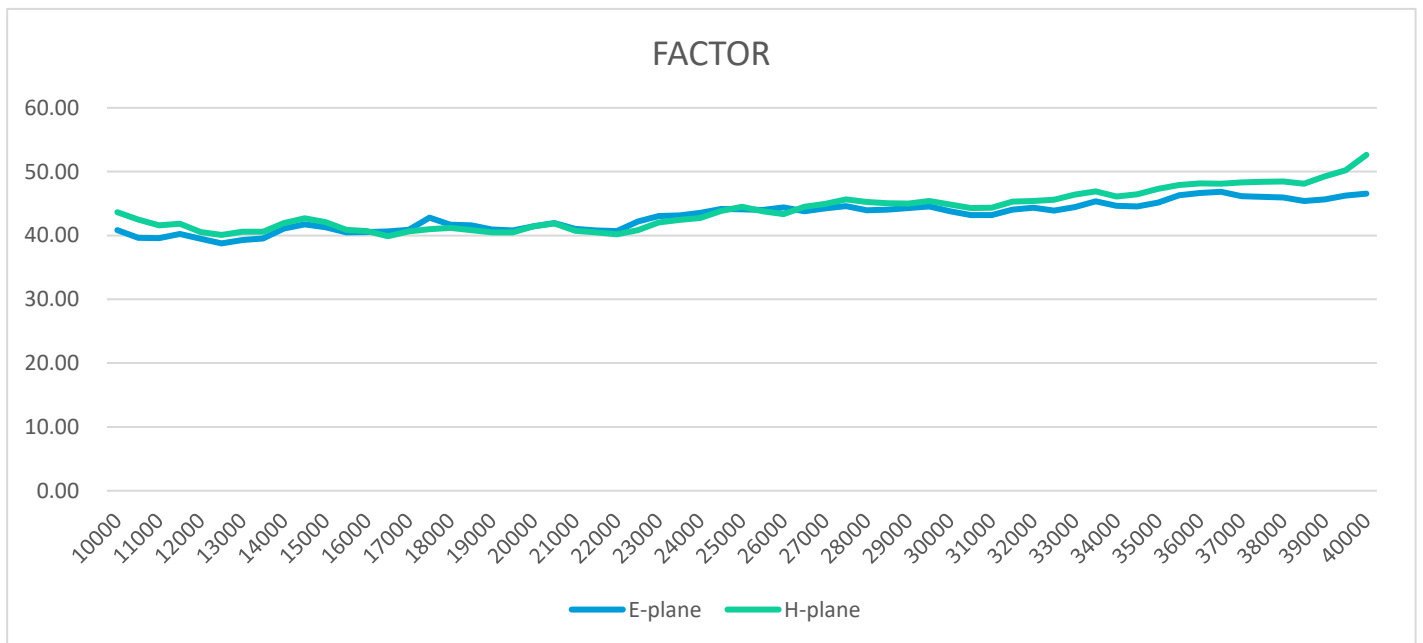
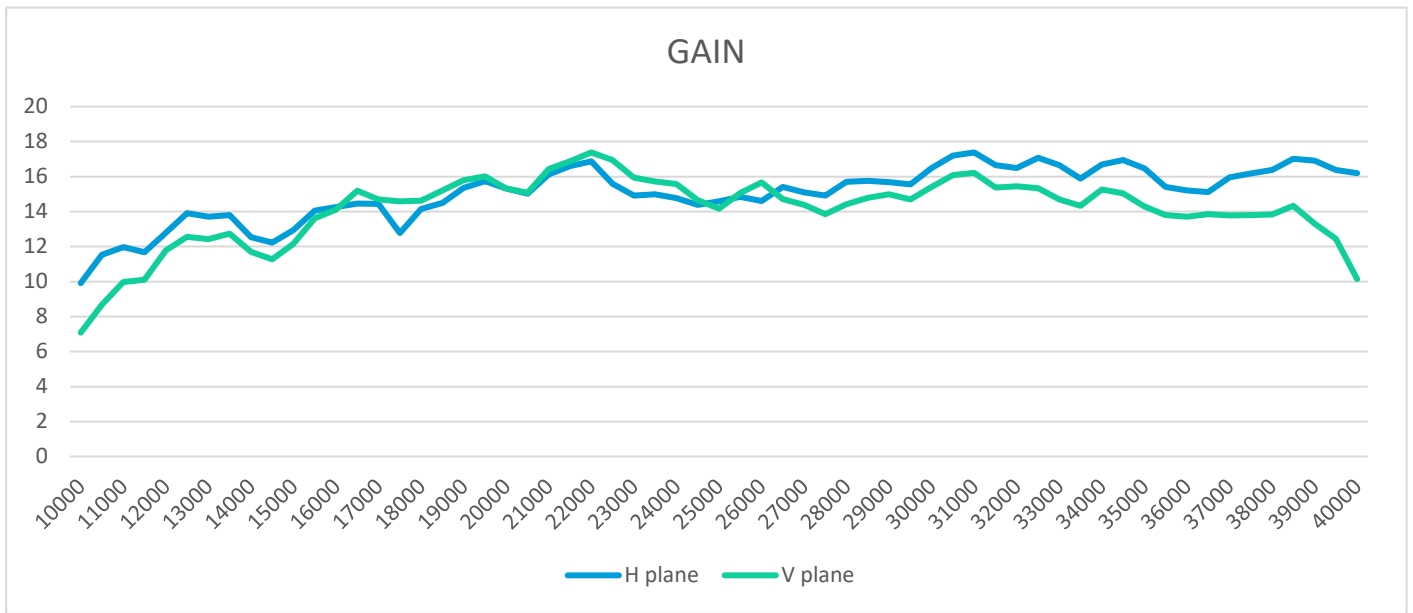
Antenna Dimension	74x55x38 mm
Antenna Weight (N.W)	90 g
Accessories	1 x Small L Type Aluminum bracket M2.5x0.4xL5 socket head cap screws
Application	Indoor
Parts Material	Aluminum
L Mount Style	M4 or 4mm
Mounting	L Type Aluminum
Mount Style	Antenna Mounting M2.5mm
Storage Temperature	-20 to +80
Operating Temperature	-10 to +60
Operating Humidity	10%~70% non-condensing
Storage Humidity	5%~50% non-condensing
Safety, Emission and other	RoHS, WEEE, CE, FCC



1MHz to 70GHz Antenna R&D. Manufacturing. OEM. ODM
Meet Various International Standards
High-Quality Made in Taiwan Antenna Products



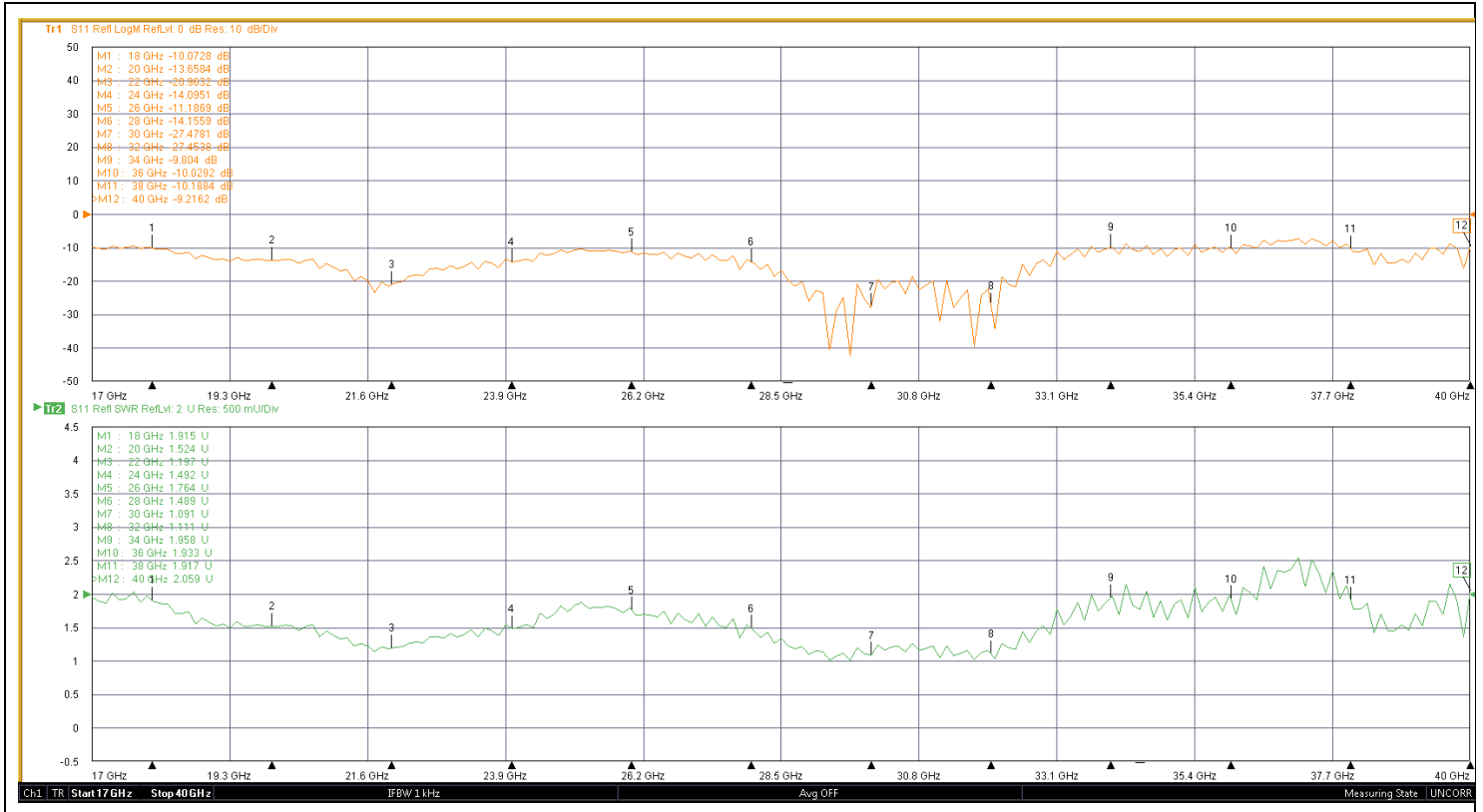
Antenna Gain



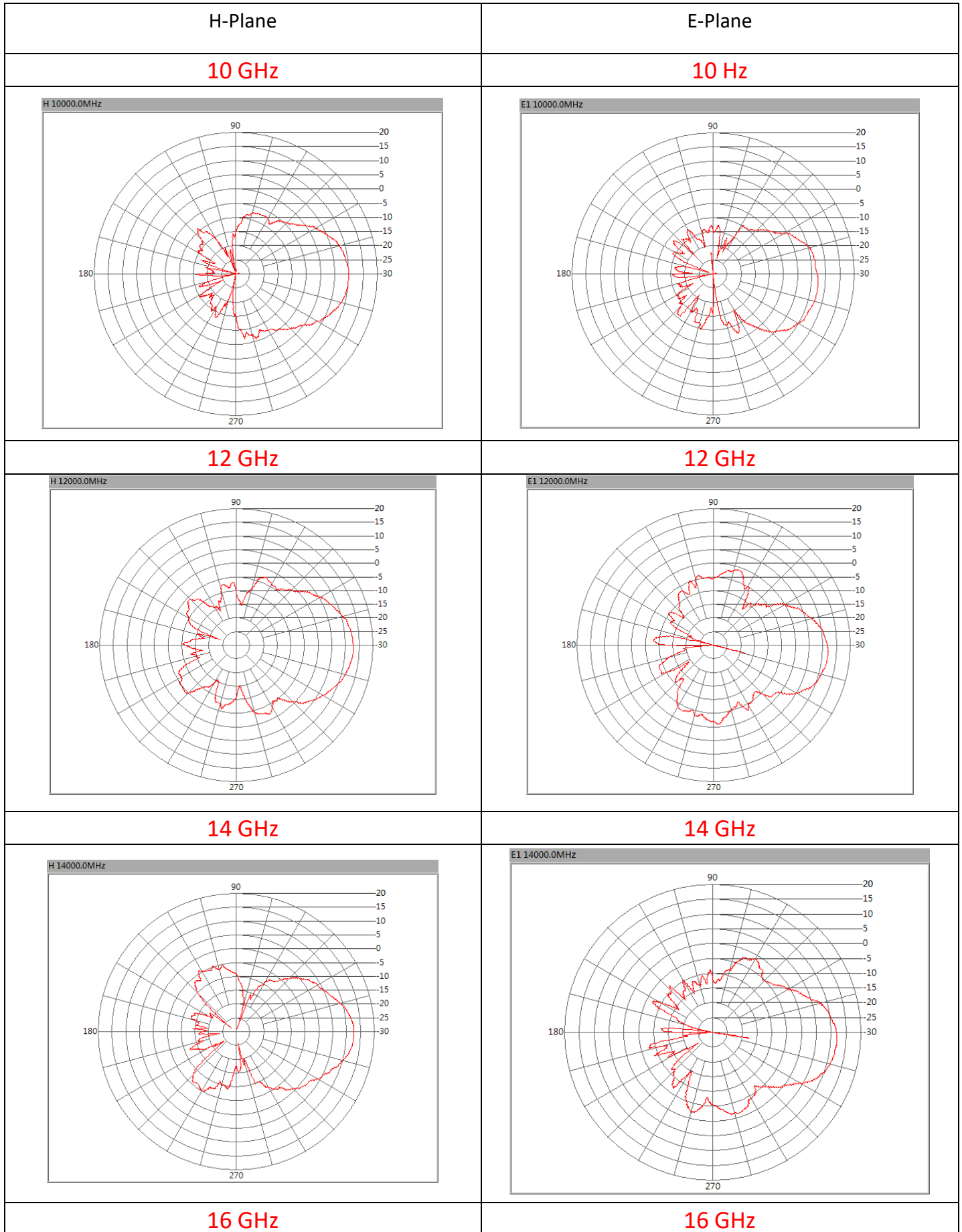
Antenna VSWR and Return loss

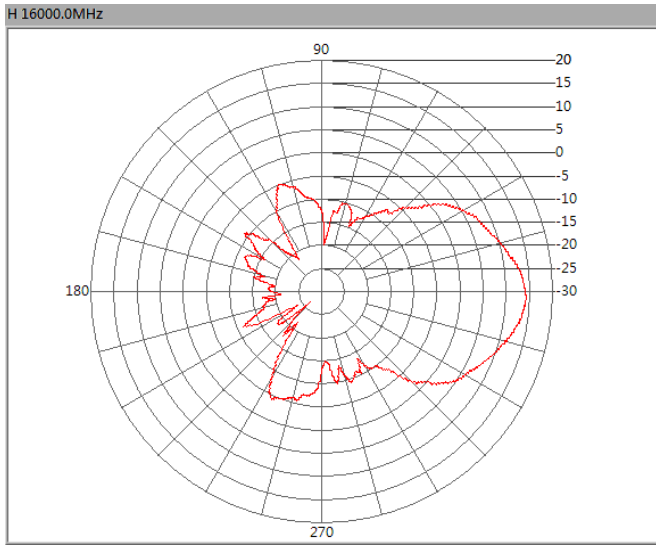
Test Equipment	Anritsu MS4632A 10Mhz-40Ghz
Test Equipment Cable	100cm 2.92 Male to 2.92 Female
RF connector Adapter	N/A
Correction	3652A-DC-40Ghz
Test Model	HA-1040GA1-KF
Test Port	S11

Return Loss & VSWR

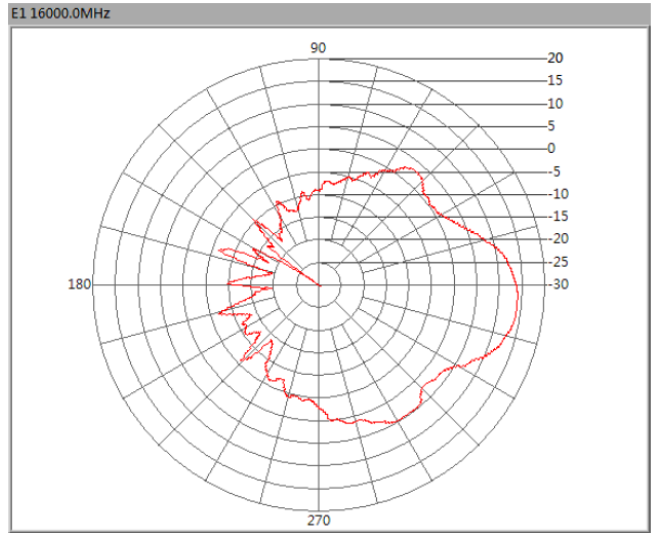


Antenna Pattern

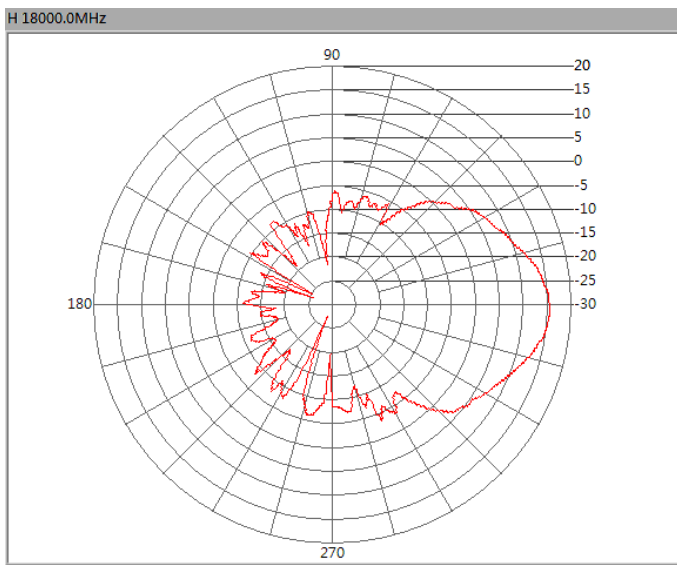




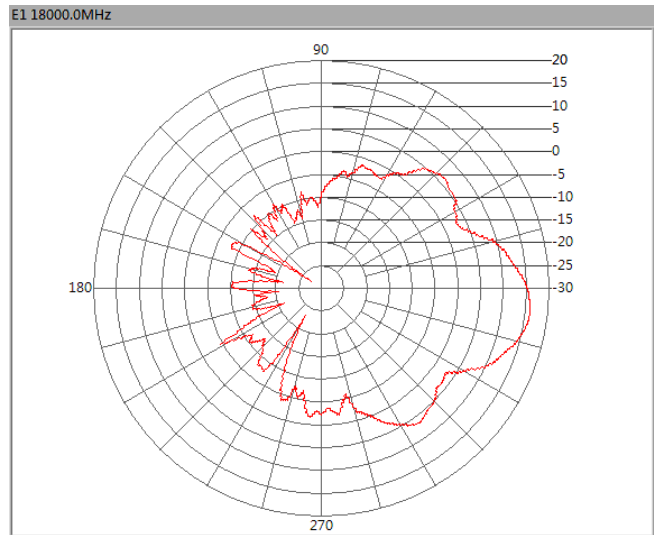
18 GHz



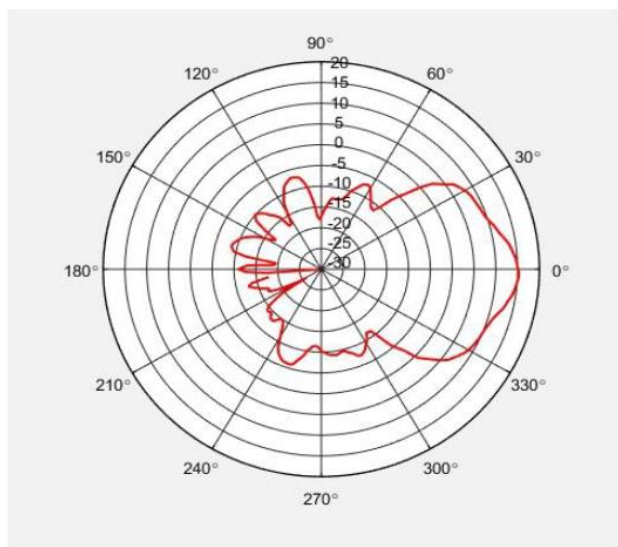
18 GHz



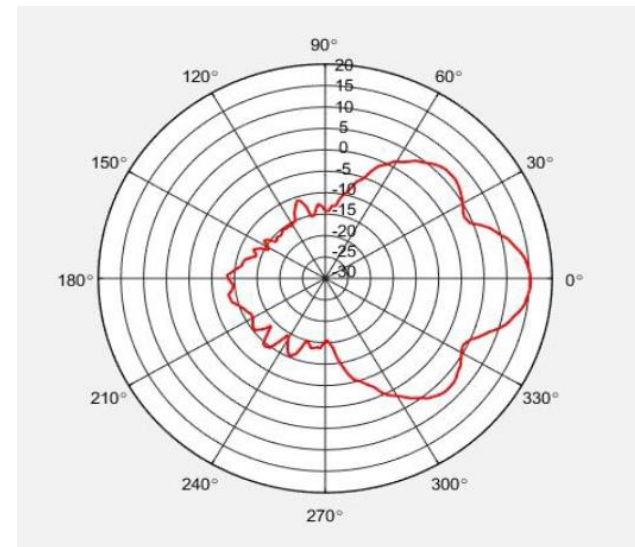
20 GHz



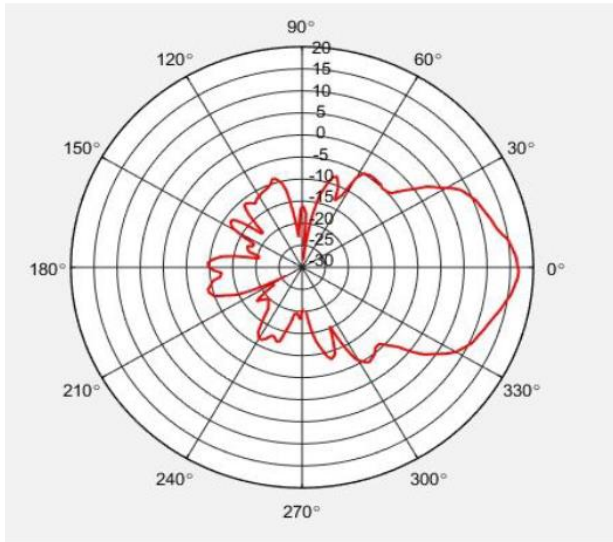
20 GHz



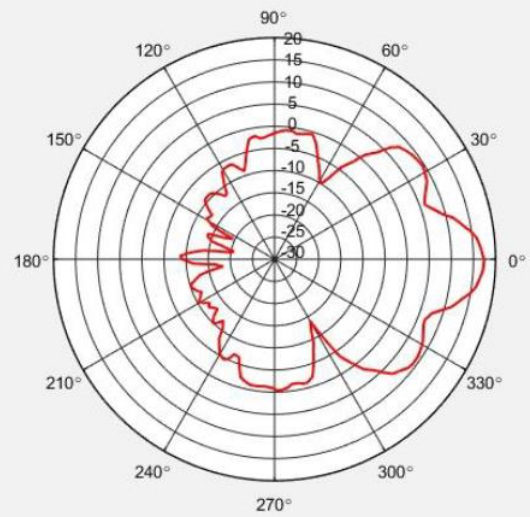
22 GHz



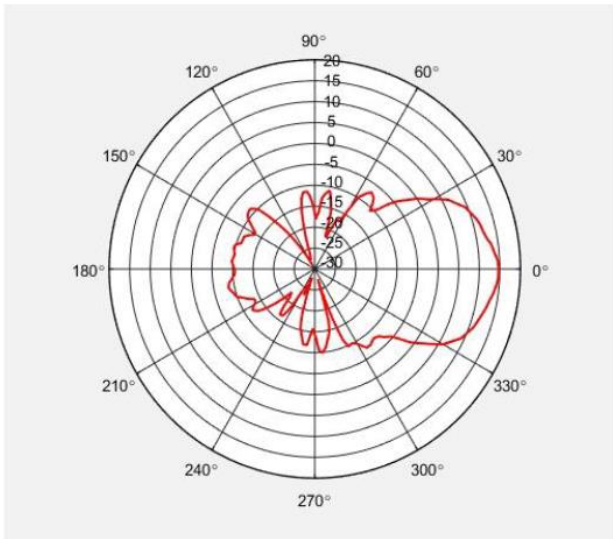
22 GHz



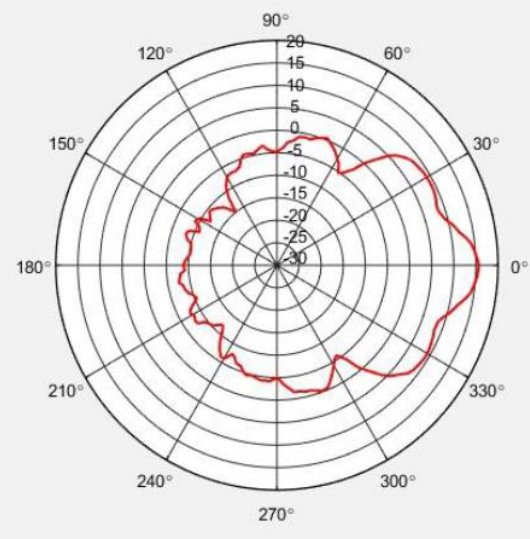
24 GHz



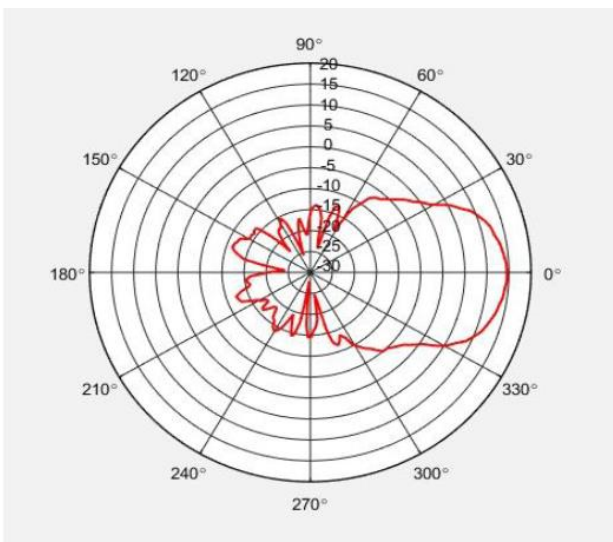
24 GHz



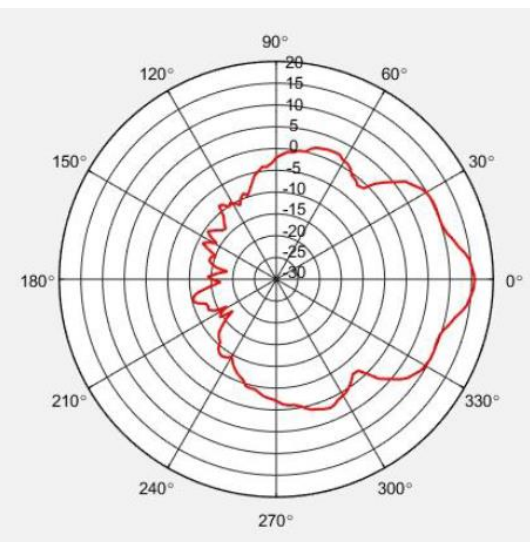
26 GHz



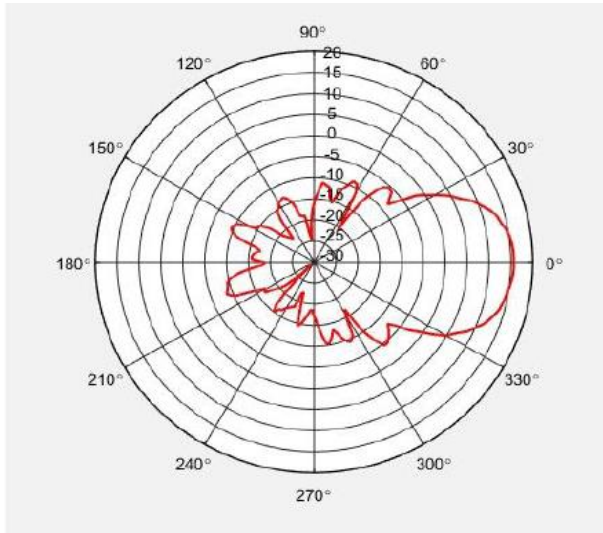
26 GHz



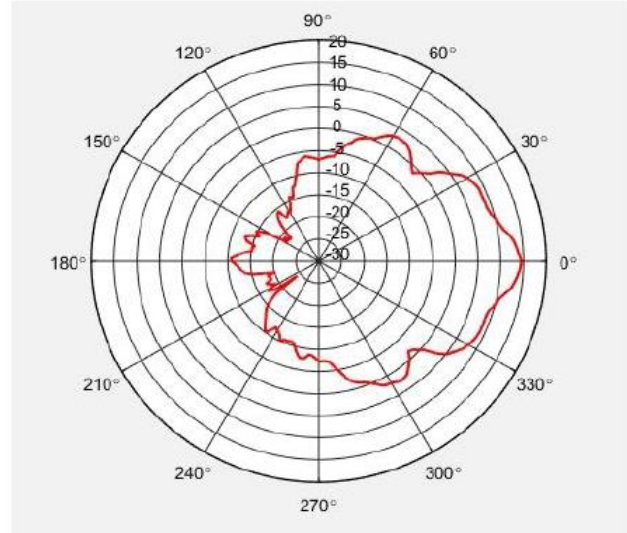
28 GHz



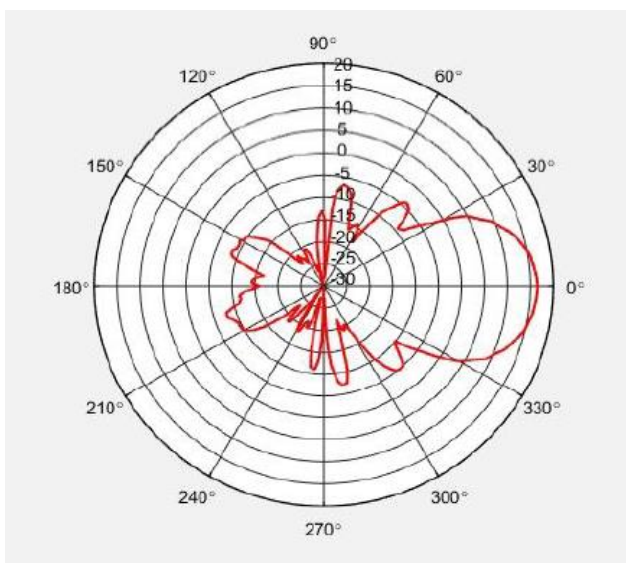
28 GHz



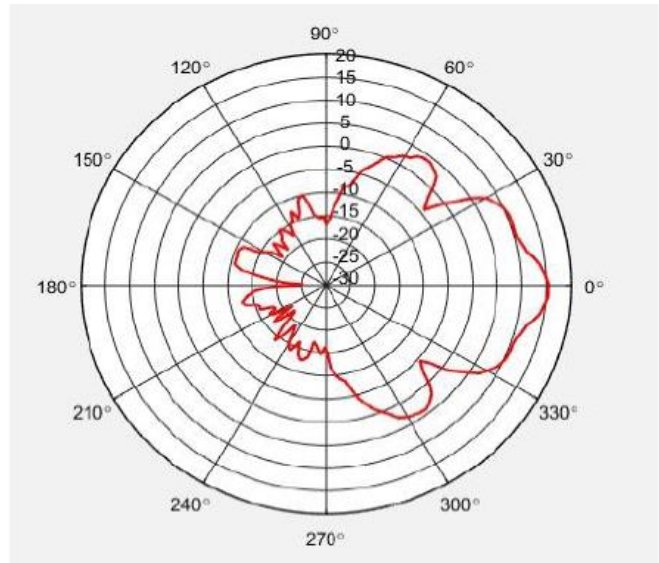
30 GHz



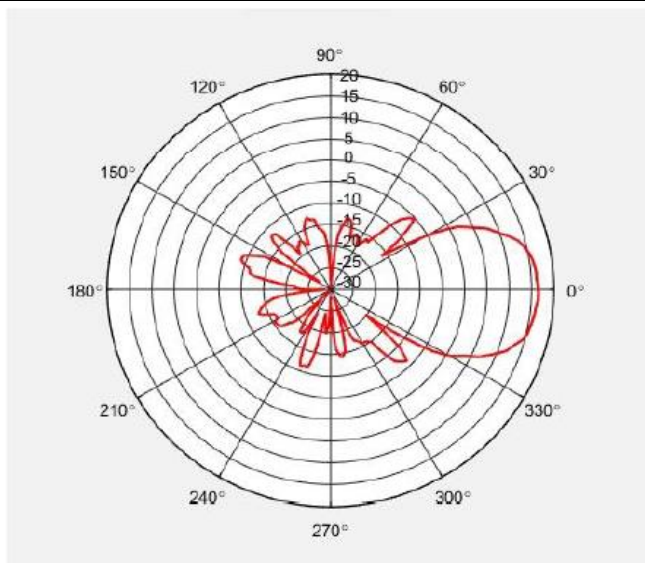
30 GHz



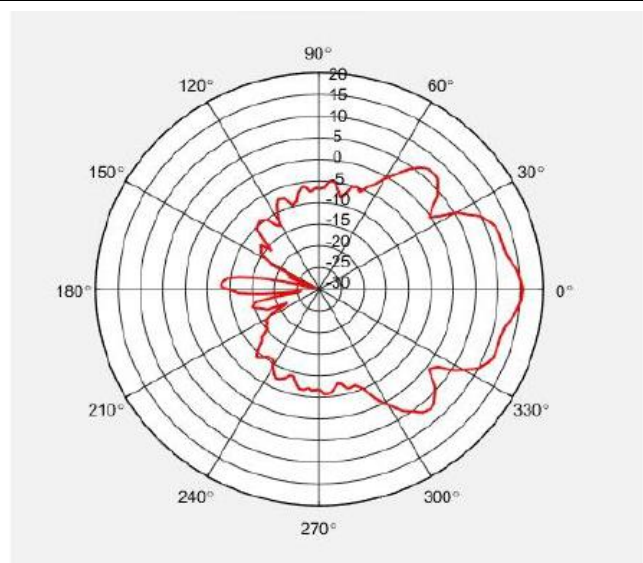
32 GHz



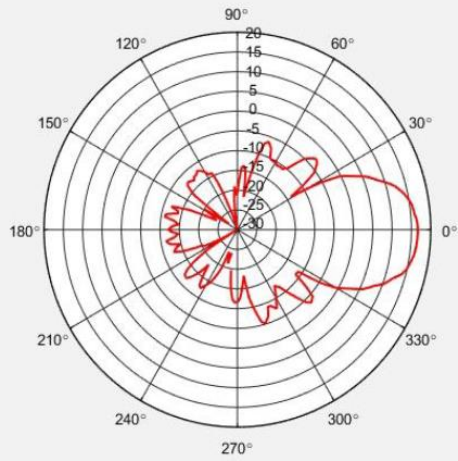
32 GHz



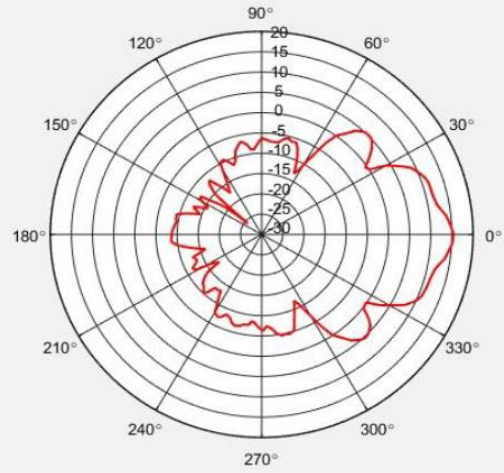
34 GHz



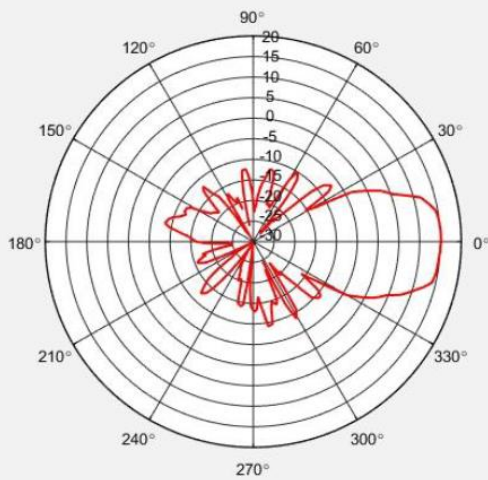
34 GHz



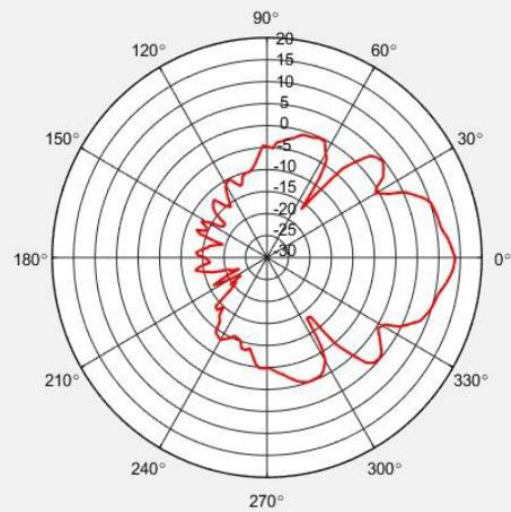
36 GHz



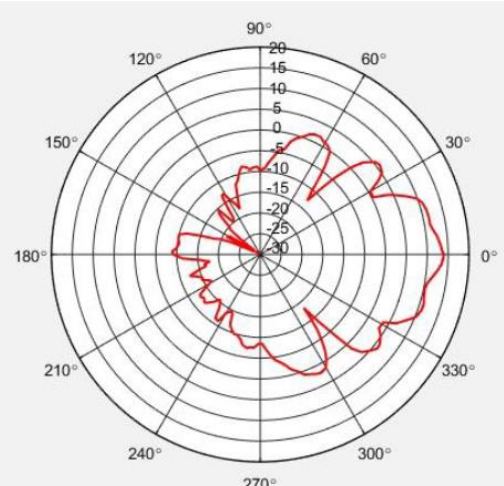
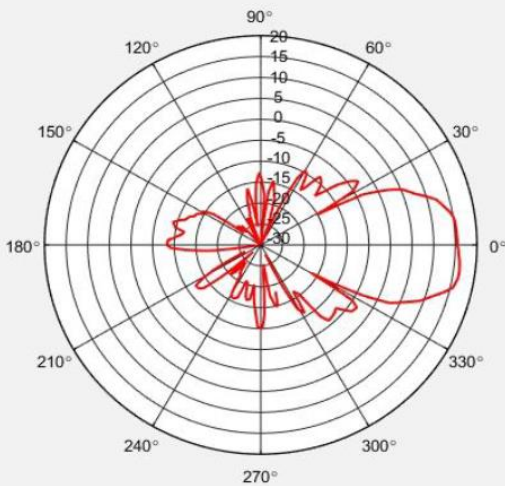
36 GHz



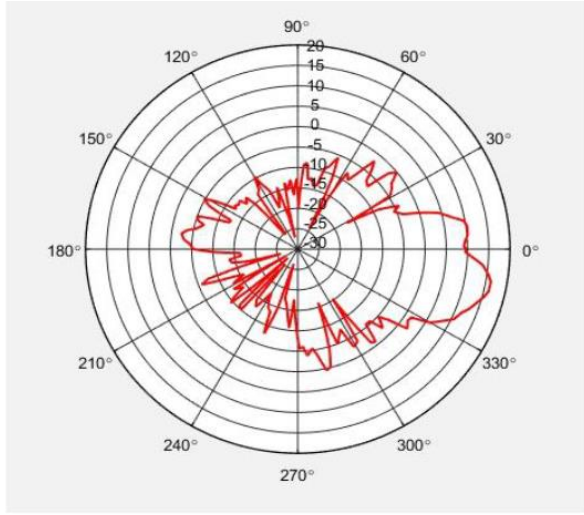
38 GHz



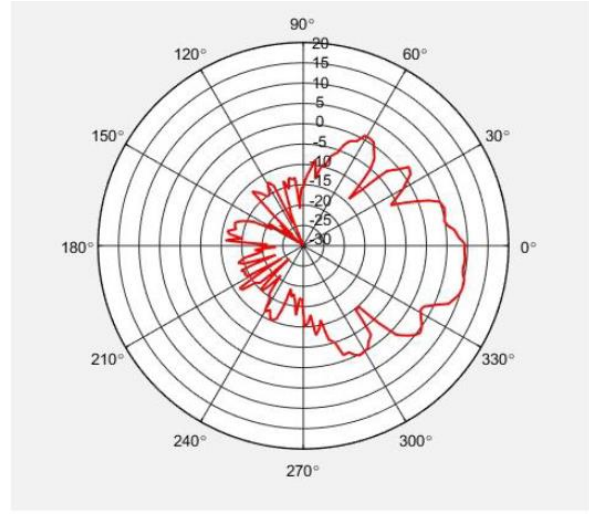
38 GHz



40 GHz



40 GHz



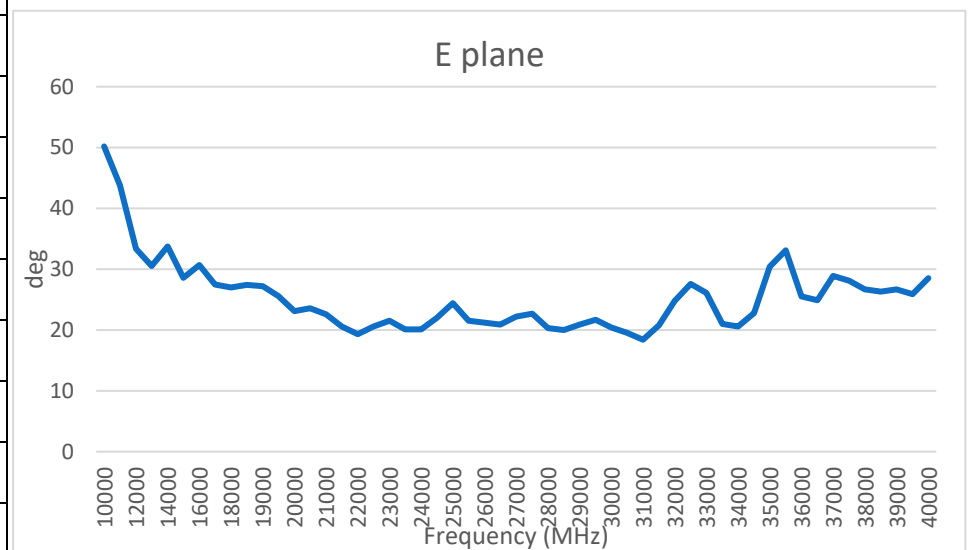
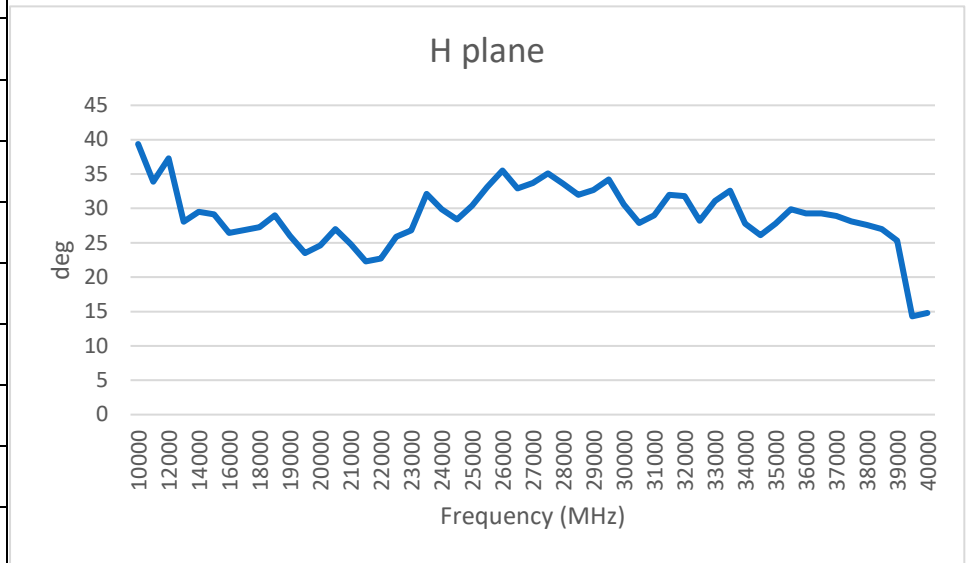
Antenna Gain

	H plane	E plane	H plane	E plane
Freq (GHz)	Gain (1M)	Gain (1M)	Factor (1M)	Factor (1M)
10	9.91	7.08	40.81	43.64
10.5	11.53	8.67	39.62	42.48
11	11.97	9.97	39.58	41.58
11.5	11.68	10.11	40.26	41.83
12	12.8	11.79	39.51	40.52
12.5	13.9	12.56	38.76	40.10
13	13.71	12.42	39.29	40.58
13.5	13.8	12.74	39.53	40.59
14	12.54	11.69	41.11	41.96
14.5	12.23	11.28	41.72	42.67
15	12.94	12.15	41.31	42.10
15.5	14.06	13.62	40.47	40.91
16	14.25	14.1	40.56	40.71
16.5	14.45	15.19	40.62	39.88
17	14.44	14.7	40.89	40.63
17.5	12.78	14.58	42.80	41.00
18	14.15	13.65	41.68	42.18
18.5	14.5	14	41.57	42.07
19	15.35	14.65	40.95	41.65
19.5	15.73	15.23	40.79	41.29
20	15.31	15.1	41.43	41.64
20.5	15.02	14.52	41.94	42.44
21	16.13	15.14	41.04	42.03
21.5	16.6	16.1	40.77	41.27
22	16.87	16.37	40.70	41.20
22.5	15.59	15.09	42.18	42.68
23	14.91	14.41	43.05	43.55
23.5	14.98	14.48	43.16	43.66
24	14.77	14.27	43.56	44.06
24.5	14.38	13.88	44.13	44.63
25	14.58	14.08	44.10	44.60
25.5	14.84	14.34	44.01	44.51
26	14.6	14.5	44.42	44.52
26.5	15.4	15.3	43.79	43.89
27	15.09	14.59	44.26	44.76

27.5	14.92	14.42	44.59	45.09
28	15.7	15.2	43.97	44.47
28.5	15.76	15.16	44.06	44.66
29	15.69	15.19	44.28	44.78
29.5	15.55	15.05	44.57	45.07
30	16.49	15.99	43.78	44.28
30.5	17.2	16.7	43.21	43.71
31	17.38	16.55	43.17	44.00
31.5	16.65	16.15	44.04	44.54
32	16.48	15.98	44.35	44.85
32.5	17.07	16.27	43.89	44.69
33	16.65	16.15	44.44	44.94
33.5	15.88	15.38	45.34	45.84
34	16.68	16.18	44.67	45.17
34.5	16.95	16.45	44.53	45.03
35	16.46	15.96	45.14	45.64
35.5	15.4	14.9	46.33	46.83
36	15.2	14.7	46.65	47.15
36.5	15.12	14.62	46.85	47.35
37	15.95	15.45	46.14	46.64
37.5	16.17	15.67	46.03	46.53
38	16.38	15.88	45.94	46.44
38.5	17.01	16.11	45.42	46.32
39	16.9	16.4	45.64	46.14
39.5	16.38	15.88	46.28	46.78
40	16.2	15.7	46.56	47.06

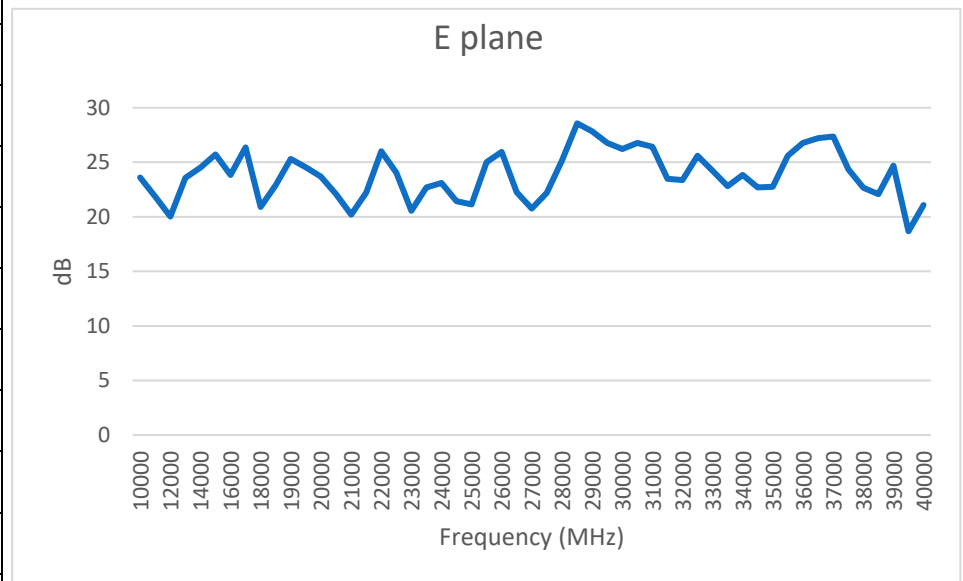
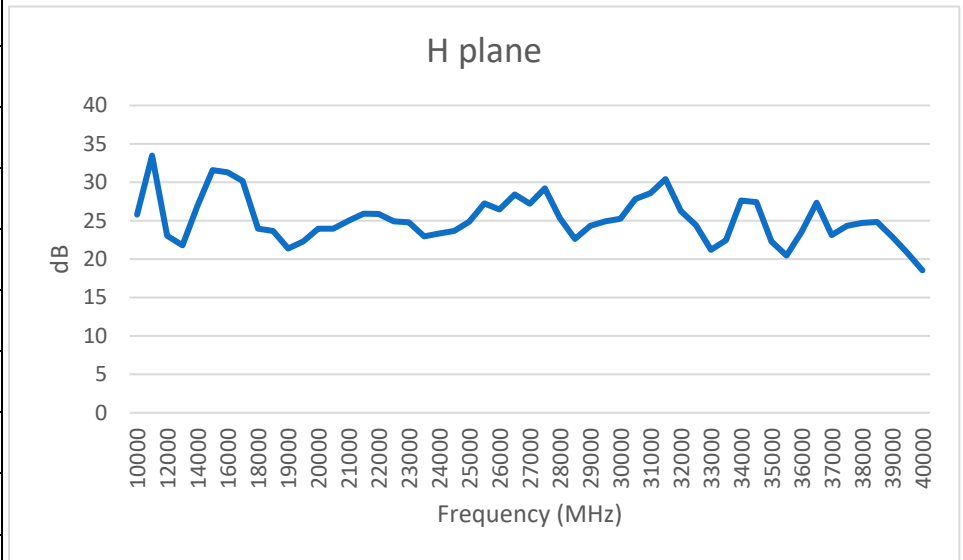
Antenna -3dB Beamwidth Curve

Frequency (MHz)	H-Plane (DEG)	E-plane (DEG)
10000	39.37	50.18
12000	37.29	33.37
14000	29.5	33.73
16000	26.43	30.66
18000	26.84	27
19000	26	27.2
20000	24.6	23.1
21000	24.8	22.6
22000	22.7	19.3
23000	26.8	21.5
24000	29.9	20.1
25000	30.4	24.4
26000	35.5	21.2
27000	33.7	272.2
28000	33.6	20.3
29000	32.7	20.9
30000	30.6	20.4
31000	29	18.4
32000	31.8	24.8
33000	31.1	26.1
34000	27.8	20.6
35000	27.8	30.4
36000	29.3	25.5
37000	28.9	28.9
38000	27.6	26.7
39000	14.3	26.7
40000	14.8	28.5

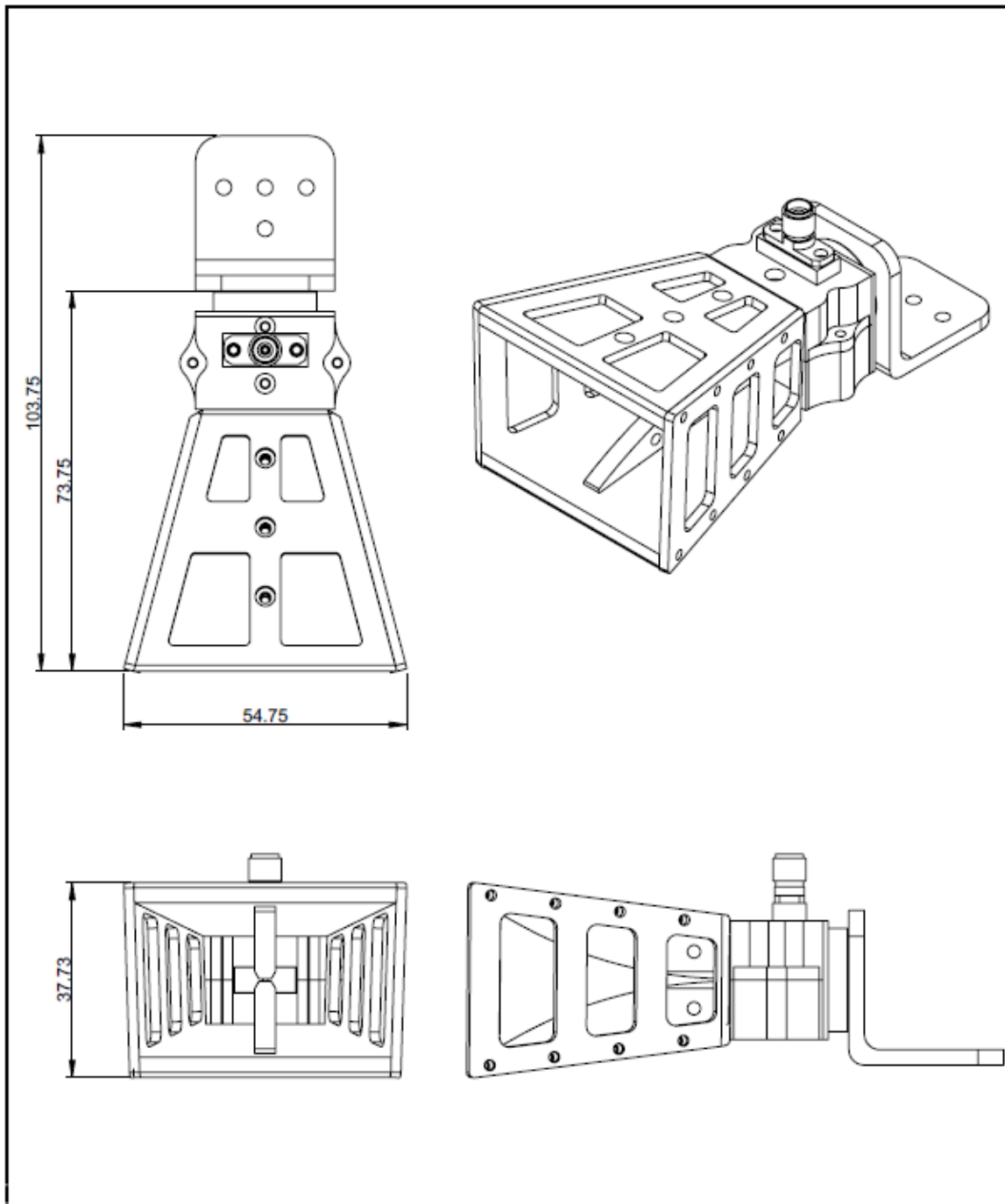



Antenna FBR Curve

Frequency (MHz)	H-Plane (db)	E-plane (db)
10000	25.78	23.61
12000	23.05	20.04
14000	26.97	24.51
16000	31.29	23.84
18000	23.97	20.91
19000	21.36	25.3
20000	23.98	23.68
21000	24.99	20.2
22000	25.87	26.02
23000	24.81	20.56
24000	23.35	23.11
25000	14.86	21.13
26000	16.48	25.94
27000	27.2	20.77
28000	25.32	25.13
29000	24.35	28.57
30000	25.24	23.36
31000	28.59	26.43
32000	26.26	23.36
33000	21.2	24.22
34000	27.61	23.85
35000	22.31	22.76
36000	23.53	23.85
37000	23.13	27.36
38000	24.72	22.68
39000	22.9	24.68
40000	18.54	21.09


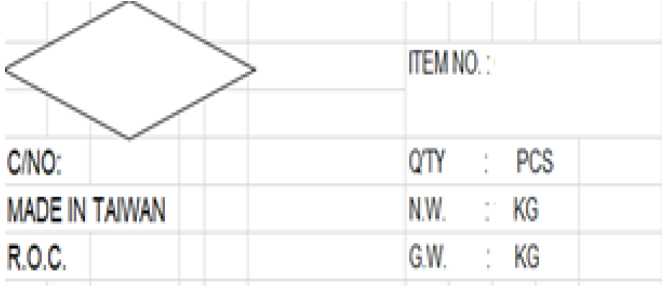


Antenna Dimensions



NAME		#.5		DATE		MATERIAL				 飛騰無線科技有限公司 Fei Teng Wireless Technology CO.,LTD	
DRAWER		TSAI		2021/4/15		WEIGHT (g)		11.61			
CONFIRM				2021/4/15		MATERIAL SUPPLIER				EDITION V1	
APPROVED		Jackie		2021/4/15		PRODUCTION METHODS				TITLE	
PROCESS		XinYing		2021/4/15		SUPPLIER					
QA				2021/4/15		FINISH MANUFACTURER				HA-1040GA1-KF	
PACKAGE DELIVERY NOTE						FINISH					
EDITION		DATE		MODIFY CONTENT		EDITION		DATE		MODIFY CONTENT	
V1										PART NO.	
V2										DEPARTMENT	
										SHIPPING NOTE	
										POSITION	
										DATE	
										2021/4/15	
										TEL	
										03-5882899	
										DATE	
										2021/4/15	
										FAX	
										03-5882879	
										Make in Taiwan For FT-RF Design	
File No.		O:\SOP-PM\PM-2021\HA-1040G1-KF\									
		SHEET 2 OF 2									
		SCALE: 1:1									
		A4									

Packing List & Label List

FT-RF's P/N: HA-1040GA1-KF	Customer's P/N: Please inform us when you make an order			
	Carton quantity	1 pcs		
	Accessories	Small L Type Aluminum bracket	1 pcs	
		M2.5x0.4xL5 socket head cap screws	8 pcs	
	Carton dimension	182x137x200 mm		
	N. W	0.09	KG	
	G. W	0.2	KG	
Carton Label (100x150mm)	Antenna Label (10x30mm)			
	HA-1040GA1-KF			
Custom carton Label	Custom Antenna Label			
** Following the customer requirements. Please inform us when you make an order	** Following the customer requirements. Please inform us when you make an order			

RoHs and WEEE Status (RoHs and WEEE Compliant)

Certificate of Compliance

Date:

To: Whom It May Concern

FT-RF hereby certifies that product:

Model	Product
HA-1040GA1-KF	10GHz to 40GHz Double Ridged Broadband Waveguide Horn Antenna

Is in conformance with the requirements of the European RoHS Directive 2011/65/EU and the European WEEE Directive 2012/19/EU, all materials referenced therein are in concentrations below the maximum allowable levels specified. Products manufactured by FT-RF bear the CE marking and have FCC certificate. FT-RF has been assessed and found to be in accordance with the requirements of ISO 14001:2015 and ISO 9001:2015 standards, scope of Design and Manufacture of Antenna.

Our statements in this letter regarding RoHS and WEEE compliance do not extend to, or apply to any product subjected to unintended contamination, misuse, neglect, accident, improper installation, or to use in violation of instructions furnished by FT-RF.

Sincerely,

FT-RF (Fei Teng Wireless Technology CO., LTD)

The information contained in this letter is being provided for informational purposes only and to clarify certain information concerning FT-RF products. Nothing provided in this letter is:

- (1) a representation, warranty, or agreement to indemnification by FT-RF.
- (2) a statement which may form the basis of reliance by FT-RF,
- (3) a modification of any of the terms and conditions of sale agreed to in writing between FT-RF and its customers with respect to any FT-RF products, whether previously sold or to be sold in the future.