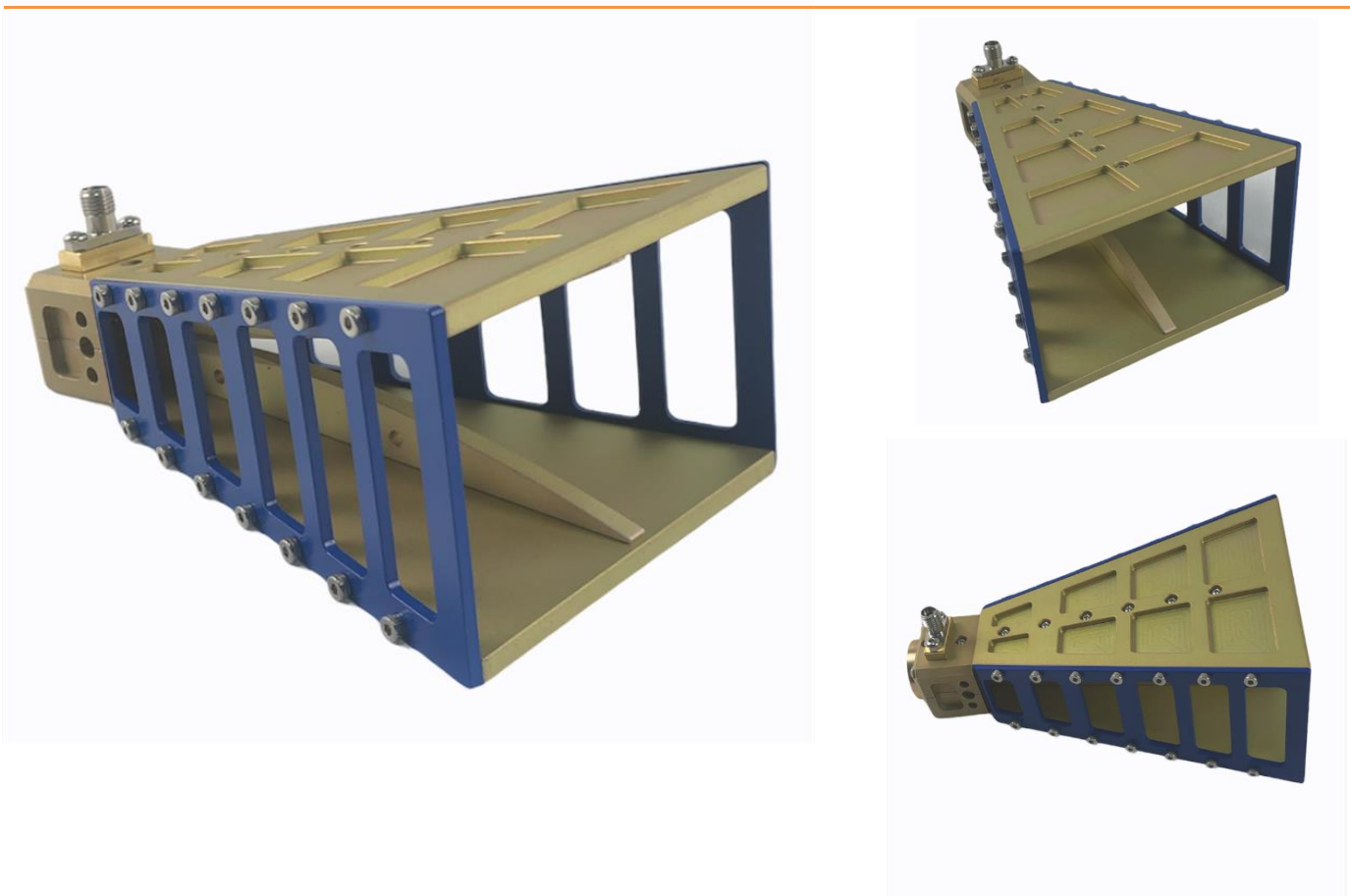


18GHz to 40GHz Double Ridged Broadband Waveguide Horn Antenna,

K-Female connector



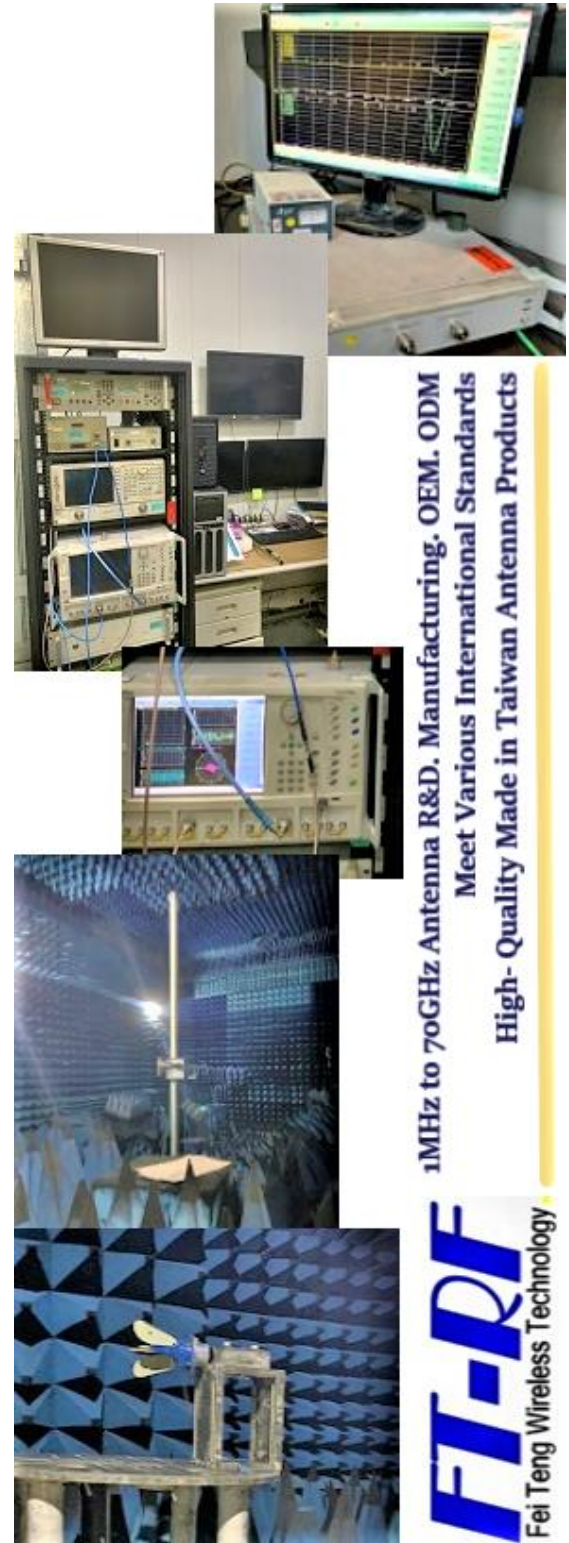
<p><b>Applications:</b></p> <ul style="list-style-type: none"> <li>● 18 GHz to 40 GHz</li> <li>● 6061 Aluminum metal alloy</li> <li>● Stainless Steel 2.92mm Female</li> </ul>		<p><b>Features:</b></p> <ul style="list-style-type: none"> <li>● DC Short lighting protection</li> <li>● Low VSWR</li> <li>● Uniform Gain</li> <li>● Consolidated performance data base</li> </ul>	
<p>Model: HA-1840GA3-KF</p> <p>LxWxH: 153x81x51mm</p> <p>Connector: 2.92mm Female</p> <p>Styling: Double Ridged Horn</p> <p>Gain: 16dbi-19dBi</p>	<p>-3db Beamwidth: Hor. 23 deg - Ver. 17deg</p> <p>N.W.: 157g</p> <p>Frequency: 18GHz - 40GHz</p> <p>Polarization: Vertical or Horizontal</p> <p>Max Power: 25W</p>		

**Electrical Specifications**

Frequency Range	18GHz - 40GHz
V.S.W. R	2.5 :1 (Avg)
Antenna Type	Horn
Radiation	Directional
Gain	16-19 dBi
Antenna Factor	38- 47 dB/m
Polarization	Vertical or Horizontal
Maximum Power	25W
Vertical Beamwidth	17 Deg
Horizontal Beamwidth	23 Deg
Impedance	50 Ohm
FBR	27 db
Antenna Design	Double-Ridged
Internal Material	Aluminum
Connector	2.92mm- Female

**Mechanical Specifications**

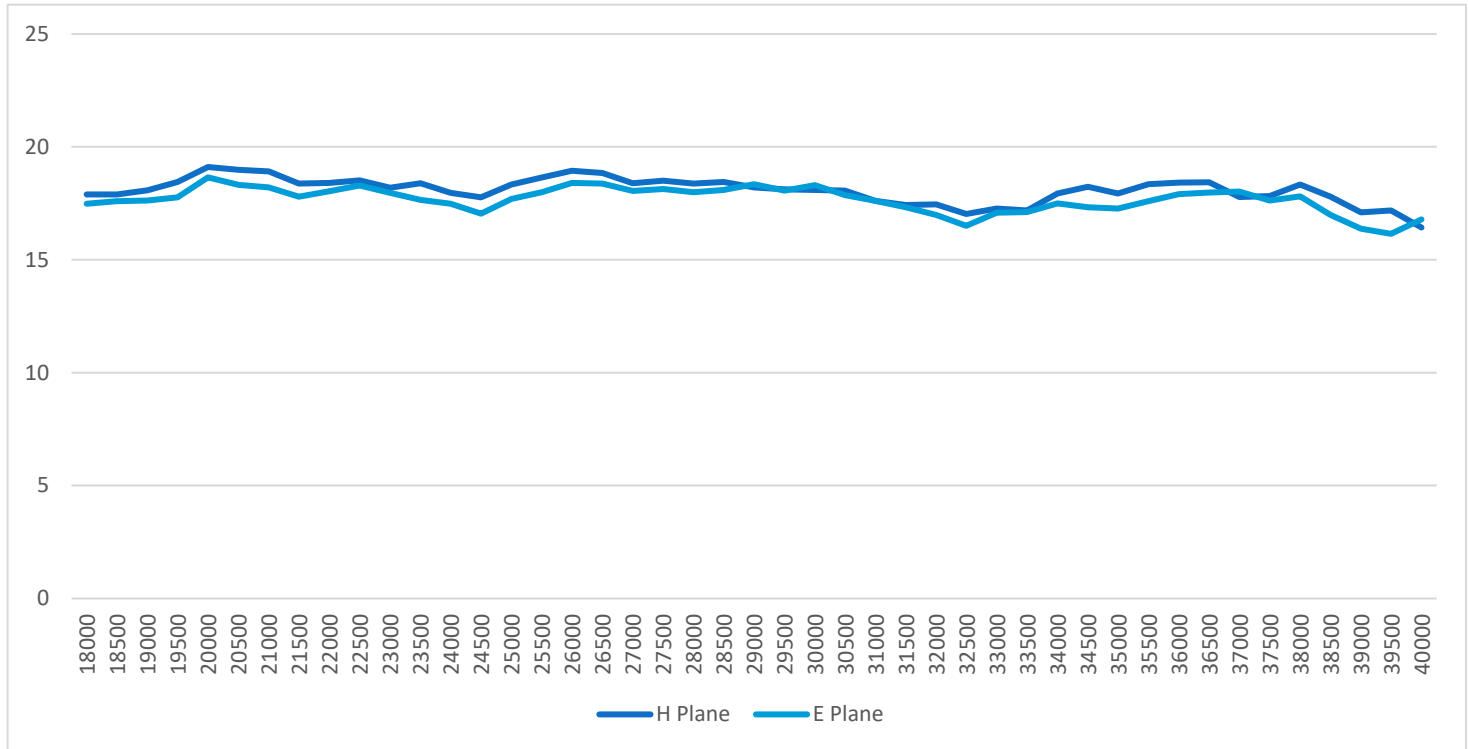
Length x Width (MAX)	153 x 81 mm
Height (MAX)	51 mm
Antenna Weight (G.W)	157 g
Accessories	1 x Small L Type Aluminum bracket 8 x M2.5x0.4xL5 socket head cap screws
Application	Indoor
Parts Material	Aluminum
L Mount Style	M5 or 5mm
Mounting	L Type Aluminum
Mount Style	Antenna Mounting M2.5mm
Storage Temperature	-20 to +80
Operating Temperature	-10 to +60
Operating Humidity	10%~70% non-condensing
Storage Humidity	5%~50% non-condensing



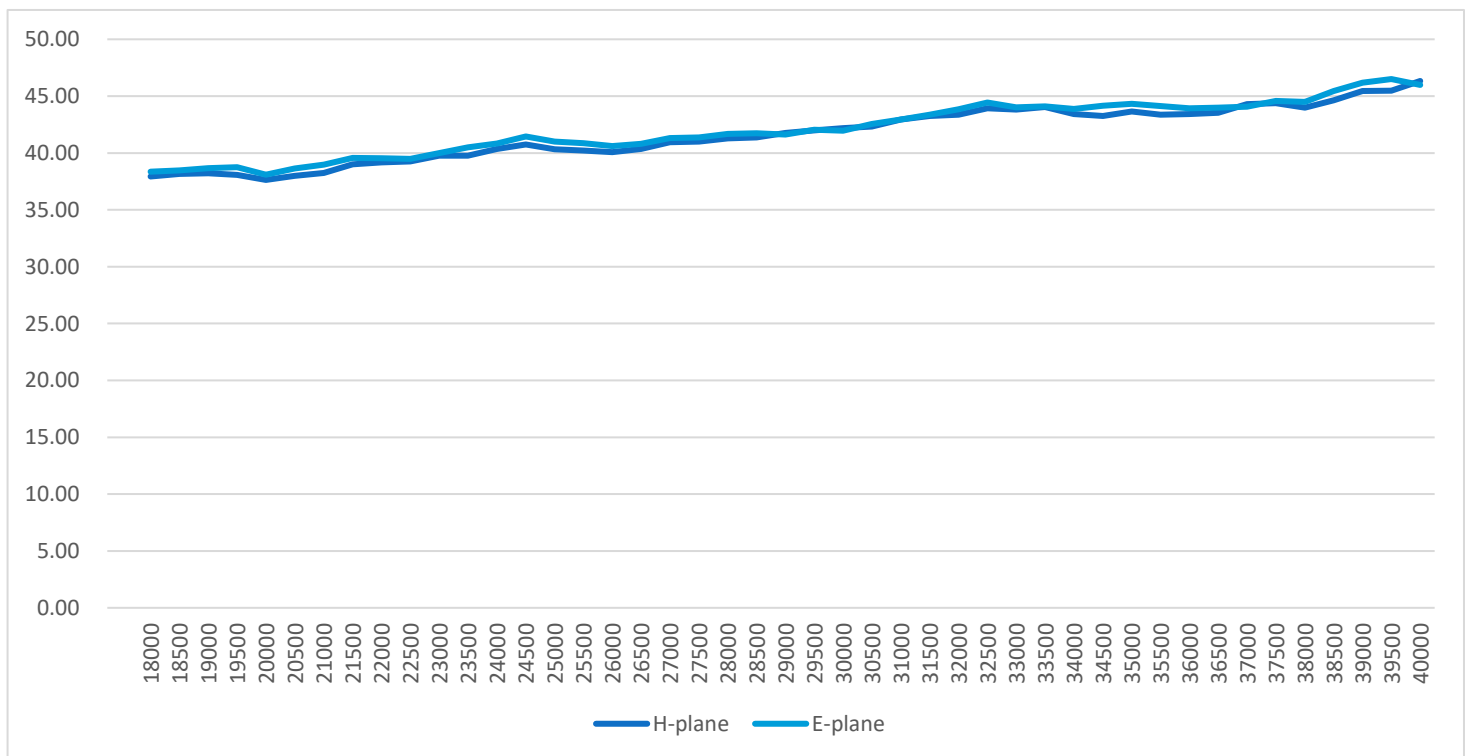
1MHz to 70GHz Antenna R&D, Manufacturing. OEM, ODM  
Meet Various International Standards  
High-Quality Made in Taiwan Antenna Products

## Antenna Gain and Factor

Gain



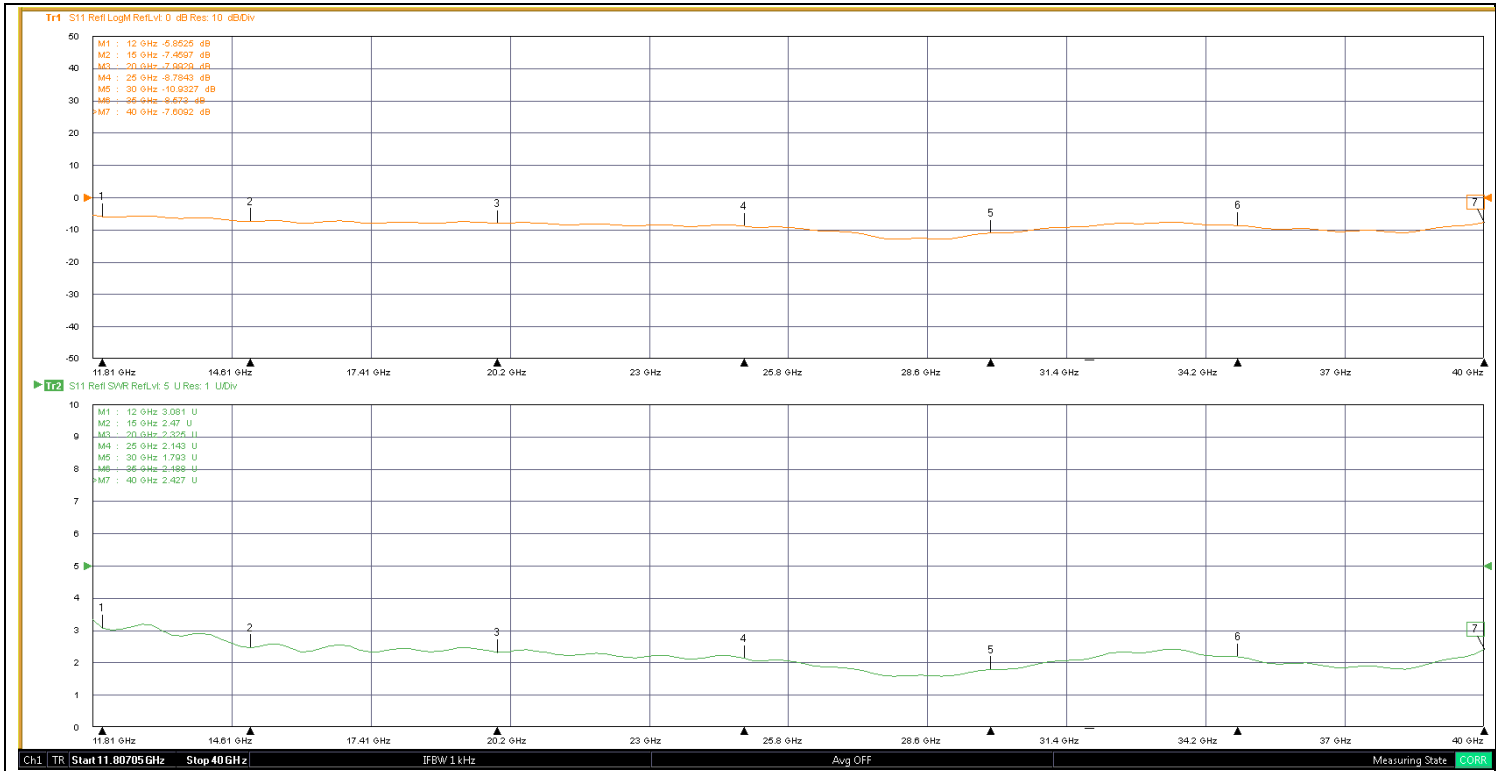
Factor



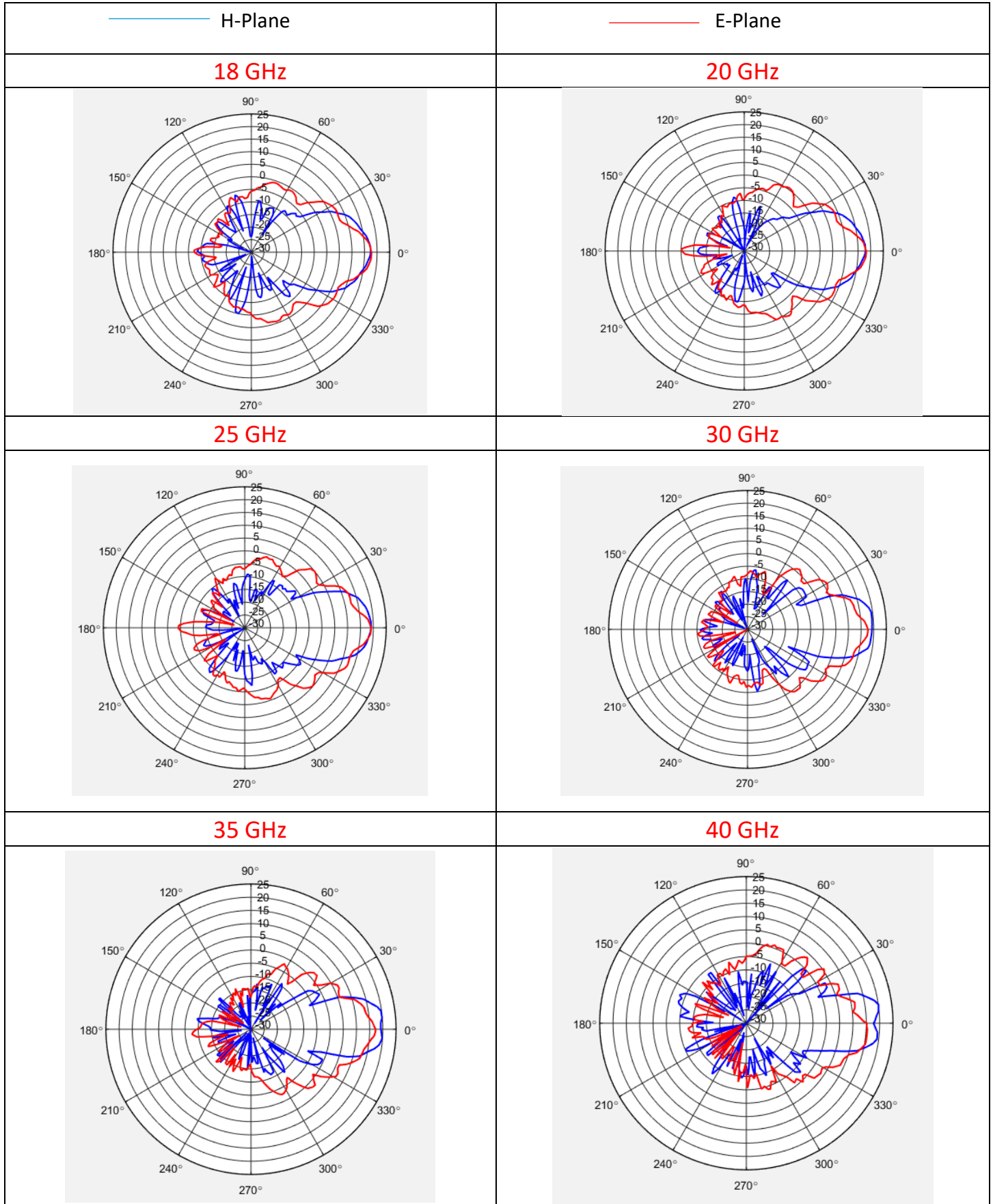
## Antenna VSWR and Return loss

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-1840GA3-KF
Test Port	S11

### Return Loss & VSWR



Antenna Pattern



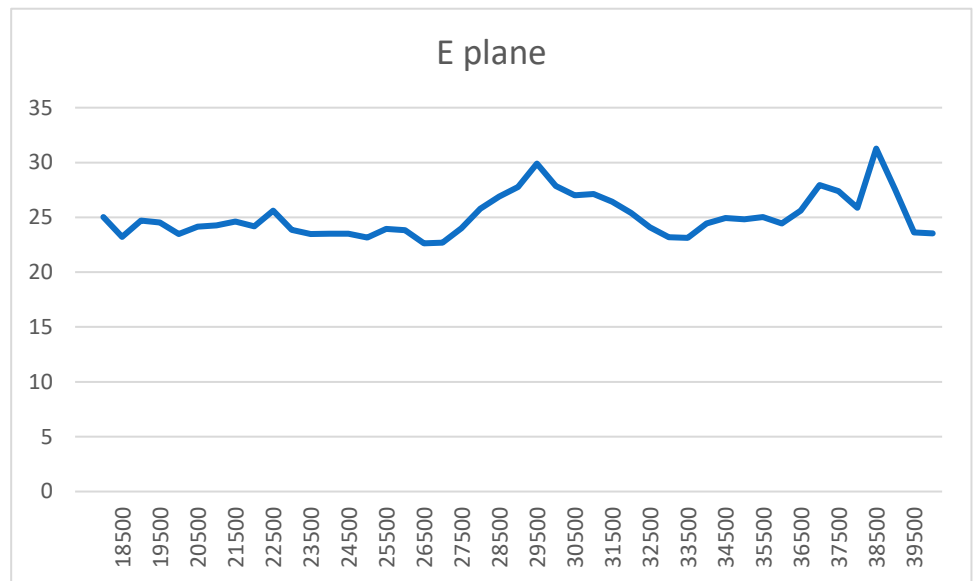
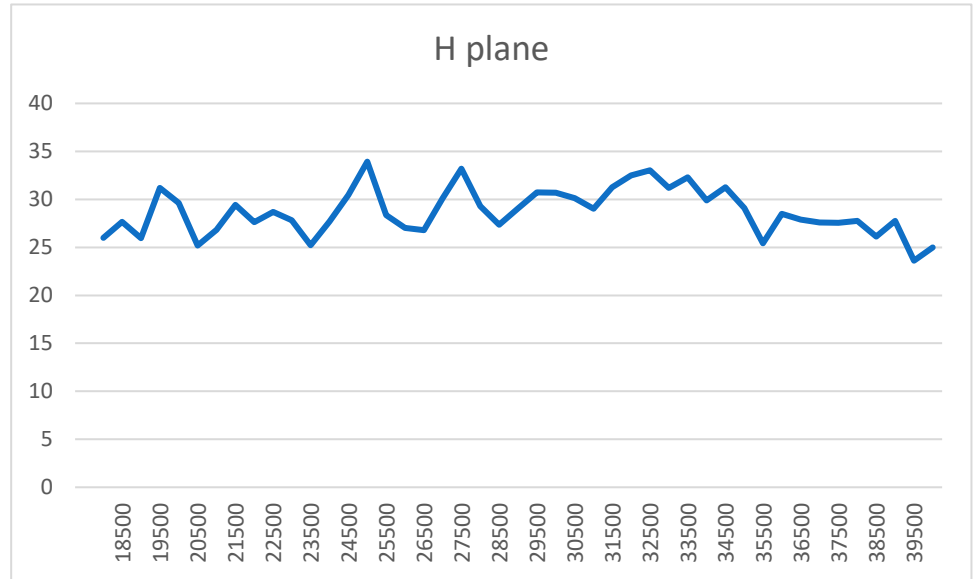
## Antenna Gain

	H plane	E plane	H plane	E plane
Freq (MHz)	Gain (1M)	Gain (1M)	Factor (1M)	Factor (1M)
18000	17.89	17.48	37.94	38.35
18500	17.9	17.6	38.17	38.47
19000	18.08	17.63	38.22	38.67
19500	18.44	17.76	38.08	38.76
20000	19.11	18.65	37.63	38.09
20500	18.98	18.32	37.98	38.64
21000	18.92	18.2	38.25	38.97
21500	18.38	17.8	38.99	39.57
22000	18.4	18.04	39.17	39.53
22500	18.52	18.29	39.25	39.48
23000	18.19	17.96	39.77	40.00
23500	18.39	17.65	39.75	40.49
24000	17.96	17.48	40.37	40.85
24500	17.76	17.04	40.75	41.47
25000	18.34	17.69	40.34	40.99
25500	18.65	18	40.20	40.85
26000	18.94	18.4	40.08	40.62
26500	18.84	18.37	40.35	40.82
27000	18.39	18.05	40.96	41.30
27500	18.5	18.14	41.01	41.37
28000	18.38	18	41.29	41.67
28500	18.45	18.09	41.37	41.73
29000	18.2	18.35	41.77	41.62
29500	18.12	18.07	42.00	42.05
30000	18.09	18.3	42.18	41.97
30500	18.07	17.86	42.34	42.55
31000	17.61	17.61	42.94	42.94
31500	17.43	17.32	43.26	43.37
32000	17.45	16.98	43.38	43.85
32500	17.03	16.51	43.93	44.45
33000	17.27	17.09	43.82	44.00
33500	17.19	17.12	44.03	44.10
34000	17.94	17.49	43.41	43.86
34500	18.23	17.33	43.25	44.15
35000	17.94	17.27	43.66	44.33

35500	18.35	17.6	43.38	44.13
36000	18.42	17.91	43.43	43.94
36500	18.43	17.98	43.54	43.99
37000	17.78	18.02	44.31	44.07
37500	17.83	17.62	44.37	44.58
38000	18.33	17.81	43.99	44.51
38500	17.8	16.98	44.63	45.45
39000	17.1	16.37	45.44	46.17
39500	17.18	16.15	45.48	46.51
40000	16.43	16.79	46.33	45.97

## Antenna FBR Curve

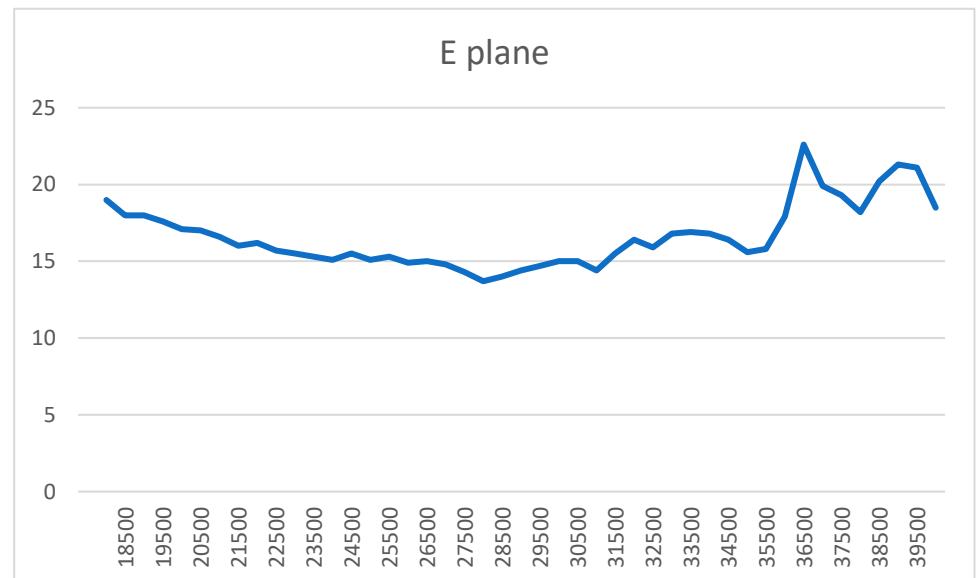
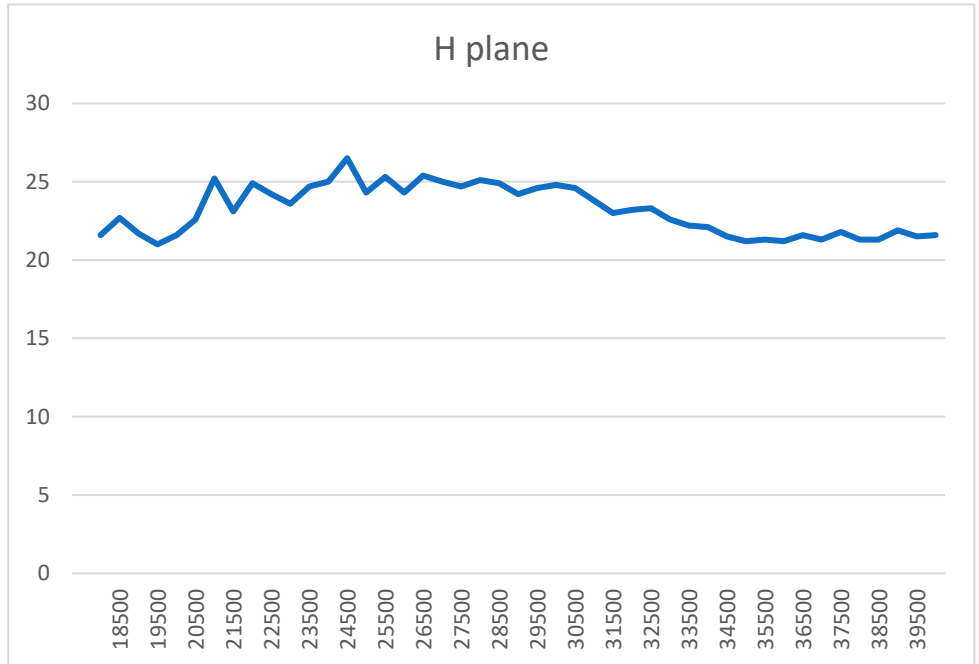
Frequency (MHz)	H-Plane (db)	E-plane (db)
18000	26	25.03
18500	27.65	23.23
19500	31.21	24.53
20500	25.19	24.14
21500	29.44	24.61
22500	28.69	25.62
23500	25.23	23.47
24500	30.47	23.5
25500	28.35	23.94
26500	26.79	22.63
27500	33.18	24
28500	27.35	26.89
29500	30.73	29.89
30500	30.14	27.02
31500	31.25	26.42
32500	33.04	24.09
33500	32.29	23.13
34500	31.27	24.95
35500	25.42	25.02
36500	27.89	25.61
37500	27.56	27.39
38500	26.14	31.27
39500	23.61	23.63
40000	24.98	23.54
AVG	28.73	25.09



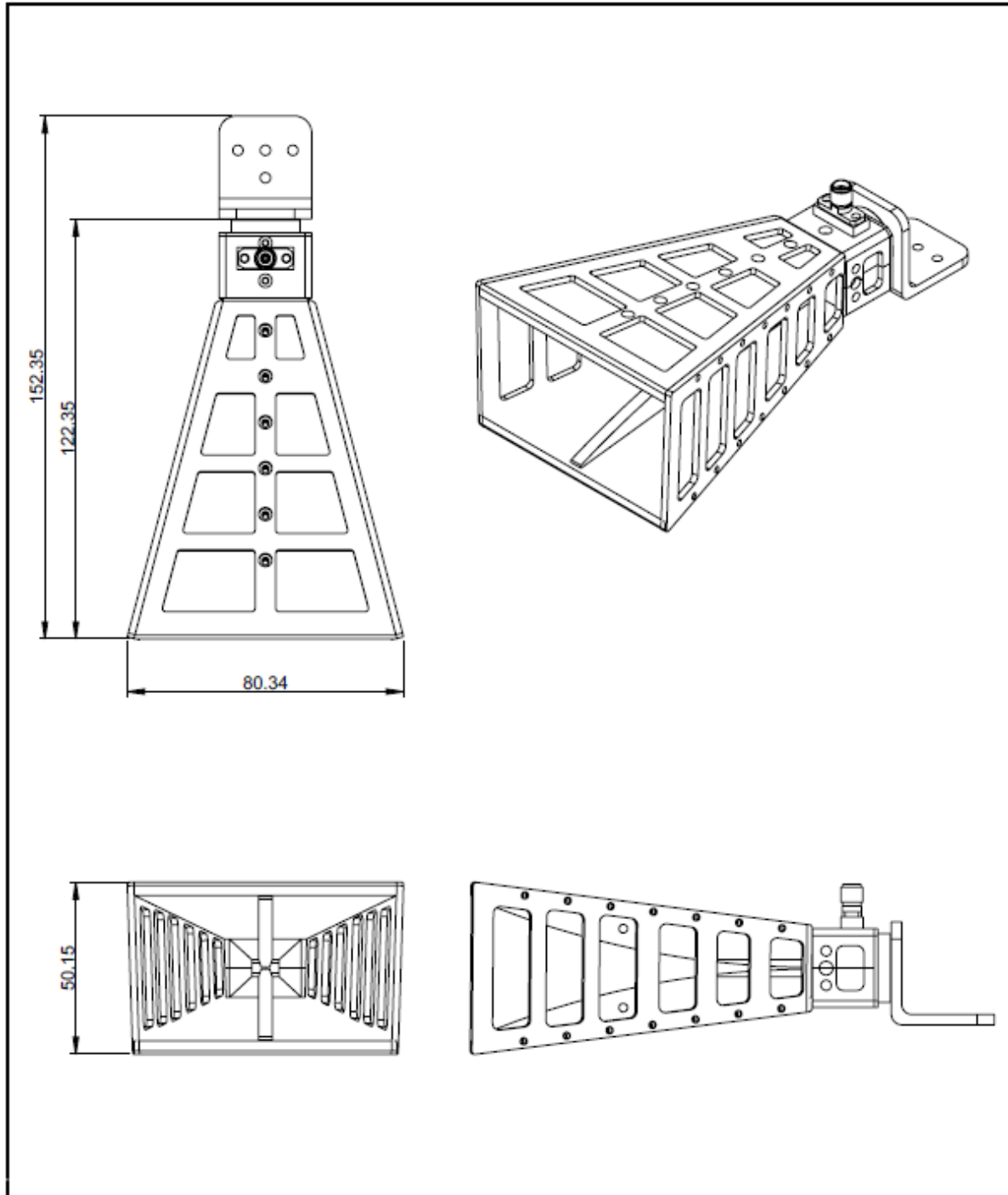



## Antenna -3db Beamwidth Curve

Frequency (MHz)	H-Plane (deg)	E-plane (deg)
18000	21.6	19
18500	22.7	18
19500	21	17.6
20500	22.6	17
21500	23.1	16
22500	24.2	15.7
23500	24.7	15.3
24500	26.5	15.5
25500	25.3	15.3
26500	25.4	15
27500	24.7	14.3
28500	24.9	14
29500	24.6	14.7
30500	24.6	15
31500	23	15.5
32500	23.3	15.9
33500	22.2	16.9
34500	21.5	16.4
35500	21.3	15.8
36500	21.6	22.6
37500	21.8	19.3
38500	21.3	20.2
39500	21.5	21.1
40000	21.6	18.5
AVG	23.18	16.63


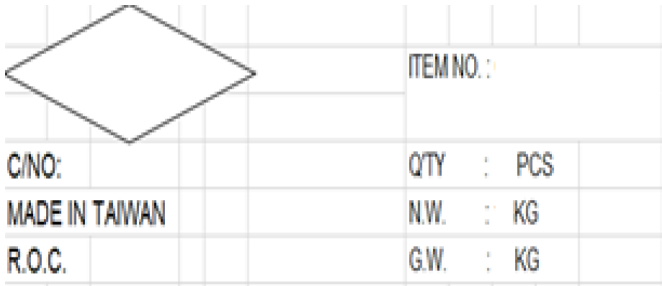


Antenna Dimension



DRAWER		TSAI	2021/4/23	WEIGHT (g)		156.28	EDGE	CO.1	 飛騰無線科技有限公司 Fei Teng Wireless Technology CO.,LTD		
CONFIRM			2021/4/23	MATERIAL SUPPLIER			EDITION	V1			
APPROVED		Jackie	2021/4/23	PRODUCTION METHODS			TITLE		18GHz to 40GHz Double Ridged Broadband Waveguide Horn Antenna		
PROCESS		XinYing	2021/4/23	SUPPLIER			PART NO.		HA-1840GA3-KF		
QA			2021/4/23	FINISH MANUFACTURER			DEPARTMENT		SHIPPING NOTE		
PACKAGE DELIVERY NOTE				FINISH				POSITION			
EDITION	DATE	MODIFY CONTENT		EDITION	DATE	MODIFY CONTENT		TEL	03-5882899	DATE	2021/4/23
V1								FAX	03-5882879	Make in Taiwan For FT-RF Design	
V2								SHEET 2 OF 3		SCALE	1:1.5
File No. S:\(Pro)\Microwave Antenna Products\HA-Series\Double Ridge Broadband Horn Antenna\HA-1840GA3-KF\										A4	

## Packing List & Label List

<b>FT-RF's P/N: HA-1840GA3-KF</b>	<b>Customer's P/N:</b> Please inform us when you make an order			
	<b>Carton quantity</b>	1 pcs		
	<b>Accessories</b>	Small L Type Aluminum bracket	1 pcs	
		M2.5x0.4xL5 socket head cap screws	8 pcs	
	<b>Carton dimension</b>			
	<b>N. W</b>	0.16	KG	
	<b>G. W</b>	0.4	KG	
<b>Carton Label (100x150mm)</b>	<b>Antenna Label (10x30mm)</b>			
	HA-1840GA3-KF			
<b>Custom carton Label</b>	<b>Custom Antenna Label</b>			
<b>** Following the customer requirements. Please inform us when you make an order</b>	<b>** Following the customer requirements. Please inform us when you make an order</b>			

## RoHs and WEEE Status (RoHs and WEEE Compliance)

### Certificate of Compliance

Date:

To: Whom It May Concern

FT-RF hereby certifies that product:

Model	Product
HA-1840GA3-KF	18GHz to 40GHz Double Ridged Broadband Waveguide Horn Antenna, K-Female Connector

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.