

## SPECIFICATION FOR APPROVAL

**CUSTOMER:** Shenzhen Feasycom Co.,LTD

**CUSTOMER PARTNO:**

**SUPPLIER:** Shenzhen Motian RF Technology Co., Ltd

**PRODUCT MODEL:** Universal 2.4G rod-shaped external antenna

**PRODUCT NAME:** Black, Wi-Fi 2.4GHz, Hinged External Antenna, with SMA Male Connector

**PRODUCT CODE:** M02-0600060R0A

**CUSTOMER SIGNATURE:**

**CUSTOMER SEAL:**

**SUPPLIER SIGNATURE:**

**SUPPLIER SEAL:**

**NOTE: PLEASE RETURN THIS COPY AS A CERTIFICATION OF YOUR APPROVAL**

Prepared by: 董春玲	Date: 2022.05.16	Add:	Room 405, Building R3-A, South District, Nanshan Science and Technology Park, Shenzhen
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## PERFORMANCE PARAMETER

### 1. Electrical Characteristics

1	Frequency Range	2400MHz~2500MHz
2	V. S. W. R	<2.5
3	Gain	3.78dBi
4	Impedence	50 Ω
5	Polarization	Vertical polarization

### 2. Mechanical parameters

1	Measure	Φ 13*195mm
2	Colour	Black
3	Connector	Male pin

### 3.Environment Condition

1	Working Temp	-30℃~80℃
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## TESTING CURVE

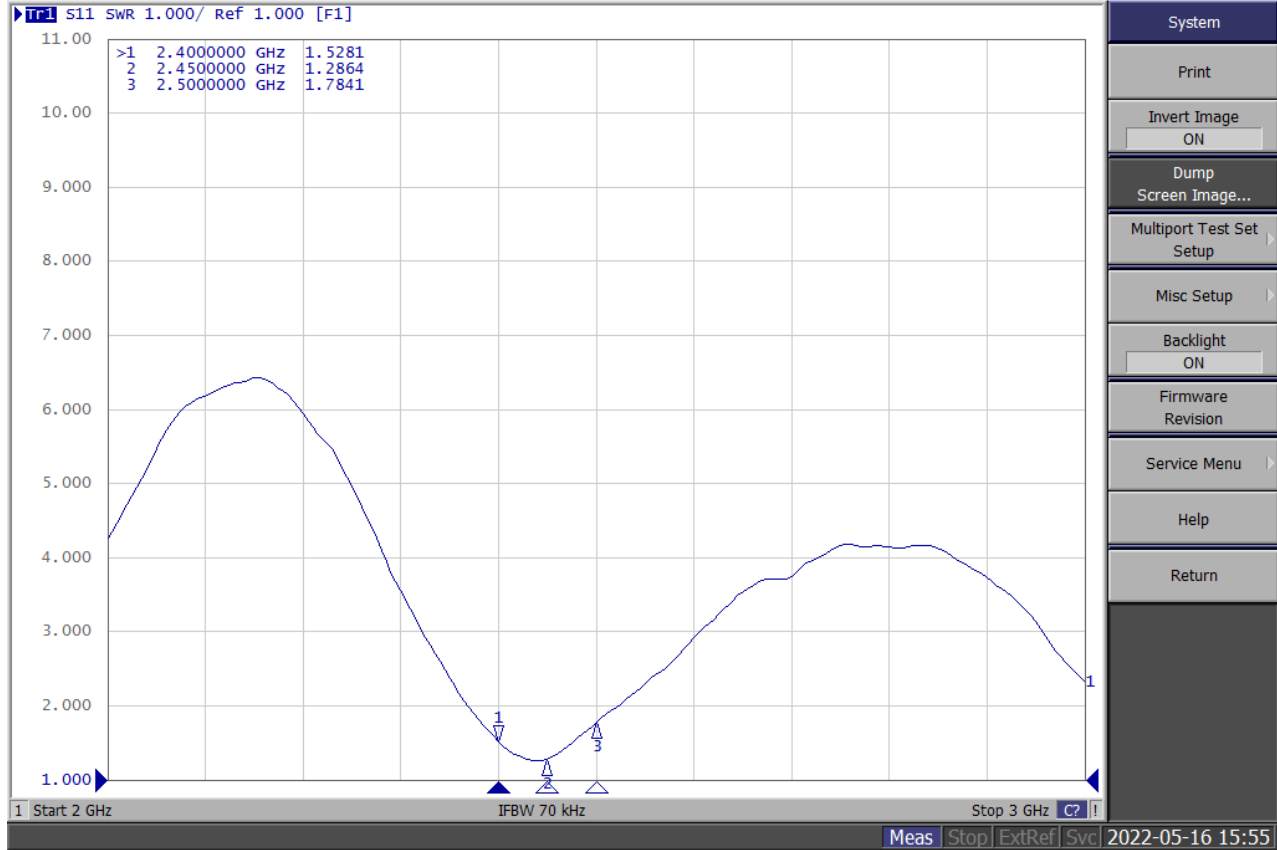
### 1. Performance test

#### 1.1 V.S.W.R

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize



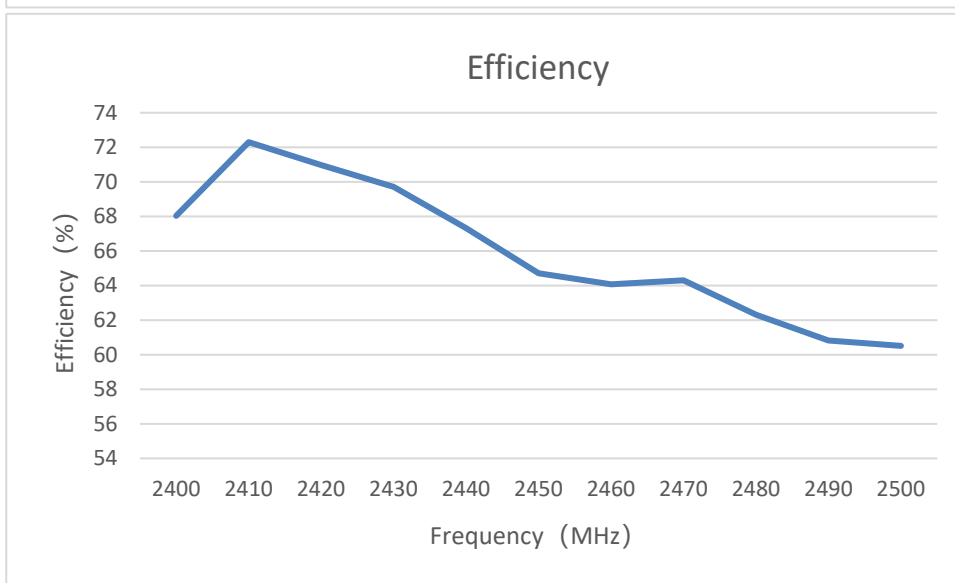
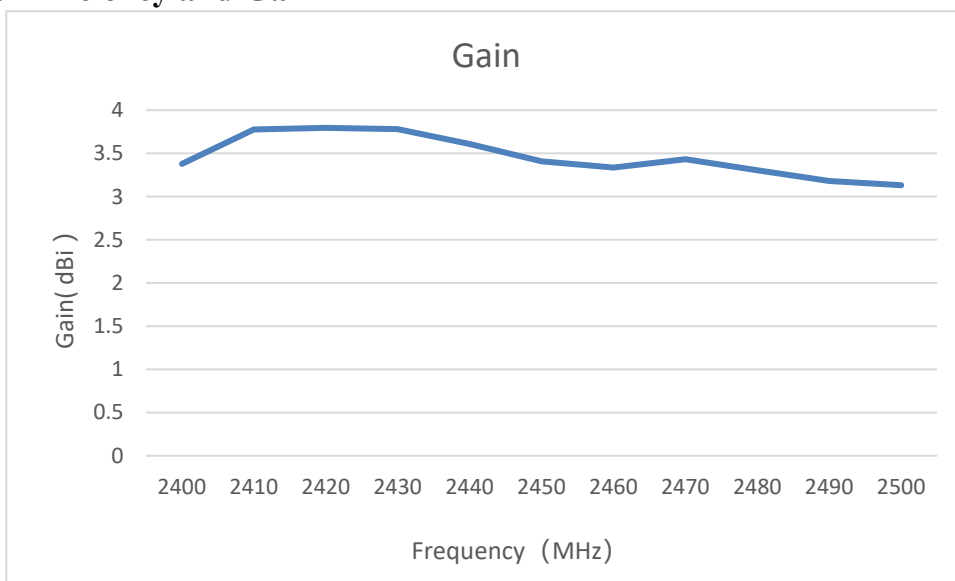
#### Data list

Freq	2.4	2.45	2.5
VSWR	1.52	1.28	1.78

## TESTING CURVE

### 2. Passive testing

#### 2.1 Efficiency and Gain

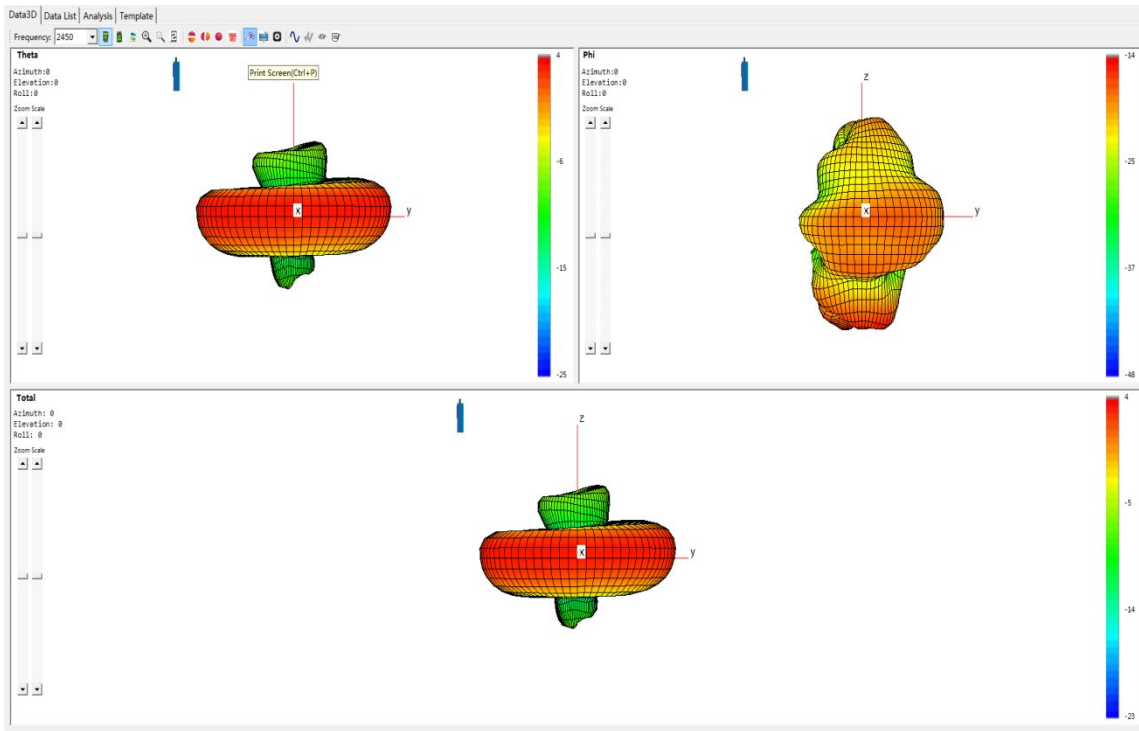


**Data list**

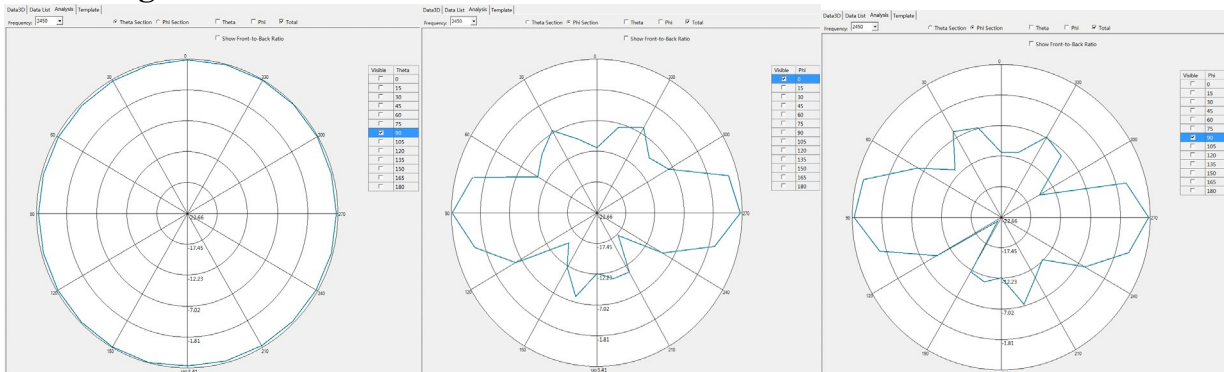
Freq(MHz)	Gain (dBi)	Efficiency_Pcent(%)
2400	3.38	68.04
2410	3.78	72.30
2420	3.80	70.98
2430	3.78	69.72
2440	3.61	67.33
2450	3.41	64.71
2460	3.34	64.08
2470	3.43	64.30
2480	3.30	62.32
2490	3.18	60.82
2500	3.13	60.51

## TESTING CURVE

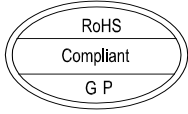
### 2.2 3D Map



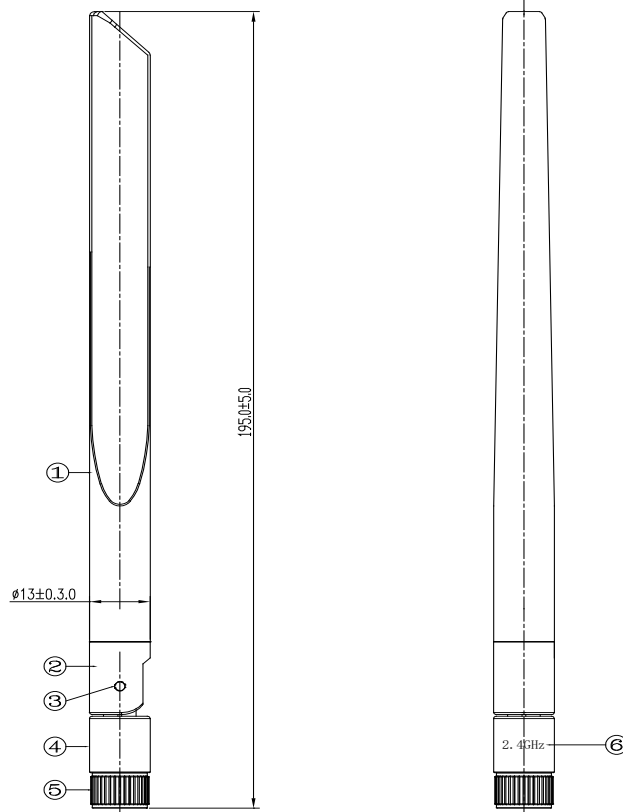
### 2.3 2D Figure



## SCHEDULE DRAWING



No.	Name	Material	Color	size	Amount	Remark
1	天线外套	TPE	黑色	154mm* $\phi$ 13mm	1	
2	上基座	PC+PBT	黑色	18* $\phi$ 13mm	1	
3	转轴	POM	黑色	5* $\phi$ 2.25mm	2	
4	下基座	PC+PBT	黑色	14.5* $\phi$ 13mm	1	
5	SMA接头		黑色	$\Phi$ 13.0 (公头公针)	1	
6	镭雕字					



备注:

1. 频率范围: 2400MHz-2500MHz
2. 阻抗: 50 $\Omega$
3. 驻波:  $\leq 2.5$
4. 最大增益: 3.78dBi
5. 极化: 垂直
6. 温度范围: -30 $^{\circ}$ C - 80 $^{\circ}$ C
7. 各零件符合ROHS



深圳摩天射频技术有限公司  
ShenZhen MyAntenna RF Technology Co., Ltd

Third Angle		Project	通用型2.4G棒状外置天线	Designed by
0~10	$\pm 0.10$	Part Name	2.4G棒状天线	Date
10~18	$\pm 0.15$	Part No.	M02-0600060R0A	Checked by RF
18~30	$\pm 0.20$	Material		Date
30~40	$\pm 0.25$	DWG No.		Approved by
40~	$\pm 0.30$	Unit	mm	Scale 1:1

Rev	Description	Date	Remark
A0	New drawing	20220516	



## Certificate of Acceptance Sample Size Inspection Report

Project Name	2.4G Rod Antenna	Antenna Type	2.4G Rod Antenna	Inspection Date	2022-05-16				
Appearance inspection standards			1. There is no abnormality on the antenna surface.						
Dimensional inspection standards			2. Within the tolerance range required by the drawing						
Code	Inspection items	Specification	Inspection tools	Number of samples	Judgment	Description			
1	Appearance	As above standard	Visual	4	OK				
2	Dimension	As shown in the following table	Vernier Caliper	4	OK				
Code	Inspection Items	Specification	Inspection tools	Test results (including 6 data records of the highest and lowest values)					
				1	2	3	4	5	6
1	Appearance Dimensions	Φ13	Caliper						
2		195							
3									
4									
5									
Remark									
Approver: 杨永成			Reviewer: 陈建尤			Inspector: 董春玲			



### QC ENGINEERING DRAWING

9	Inspection	IPQC Process Inspection Regulations	/	visual	visual	2H	IPQC process inspection records	IPQC	
10	Appearance inspection	Technical documents/drawings/appearance judgment criteria	/	visual	visual	Full inspection	Production daily report	inspector	
11	Testing	Technical documents/drawings	/	Network Analyzer	Testing visual	Full inspection	Production daily report	operator	
12	Packaging (bagging) quantity confirmation	Drawings/BOM	/	/	visual	Full inspection	Production daily report	operator	
13	Testing	IPQC Process Inspection Regulations	/	visual	visual	2H	IPQC process inspection records	IPQC	
14	Storage	Production order	/	/	/	/	Product Inventory Order	Warehouse keeper	
15	Pre-shipment inspection	Shipping Notice	Network Analyzer	testing	AQL 抽检	/		OQC	

**Instruction:**     operation and processing;     confirmation, inspection, judgment, approval     operation and processing;     Transportation

Mark	Modifications	Version	Date	Modified by	Approver
		A	2022.04.29	王彦	徐茂元

## ROHS TEST REPORT

Project material name	Material Code	Report test sample name	Testing agency	Detection time	Test report number	Test Conclusion	Remark
2.4G Rod Antenna	M02-0600060R0A	Base	SGS	2022/3/10	CANEC2203190501	OK	
		Shell	SGS	2021/11/3	CANEC2120138401	OK	
		SMA	SGS	2021-10-27	CANEC2118965605	OK	
		PCB	SGS	2021/11/4	NGBML2105022604	OK	
		Foam	SGS	2022-01-04	CANEC2124348308	<u>OK</u>	
		Coaxial Cable	SGS	2021-08-23	CANEC2114861410	OK	
Fictitious person: 董春玲		Reviewer: 陈建尤		Date: 2022.05.16		Stamping place:	

## PRODUCT VERIFICATION

Test items	Test description/test standard	Target Requirements	Product Verification (PV)						Remark
			sample		Trial Location		Trial	Responsible Person	
			amount	Type	client	supplier	Third Party	Result	
Appearance inspection	The surface should not have defects such as dents, scratches, cracks, deformation, burrs, mildew spots, etc.; the surface coating should not bubble, crack, or fall off; metal parts should not have rust or other mechanical damage; the injection material should not overflow.	Normal appearance	Full inspection	Tooling parts		✓		OK	
size	According to drawing size	Within the size tolerance	3pcs	Tooling parts		✓		OK	
Performance Check	The product meets the requirements of the design specification	Short circuit and continuity test	Full inspection	Tooling parts		✓		OK	
Insertion and extraction force	SMA Header Insertion and Extraction Force	Pull-out test, the bearing capacity is greater than 2N	3pcs	Tooling parts					
Salt spray resistant	48 hours salt spray test	The surface is not rusted after cycle verification	3pcs	/					
Requirements for banned and restricted substances	Tested in accordance with RoHs requirements	Products should comply with RoHs standards	/	/			✓	OK	
Packaging Specifications	Place according to the drawing specifications	Visual inspection and placement as required	Full inspection	Tooling parts		✓		OK	