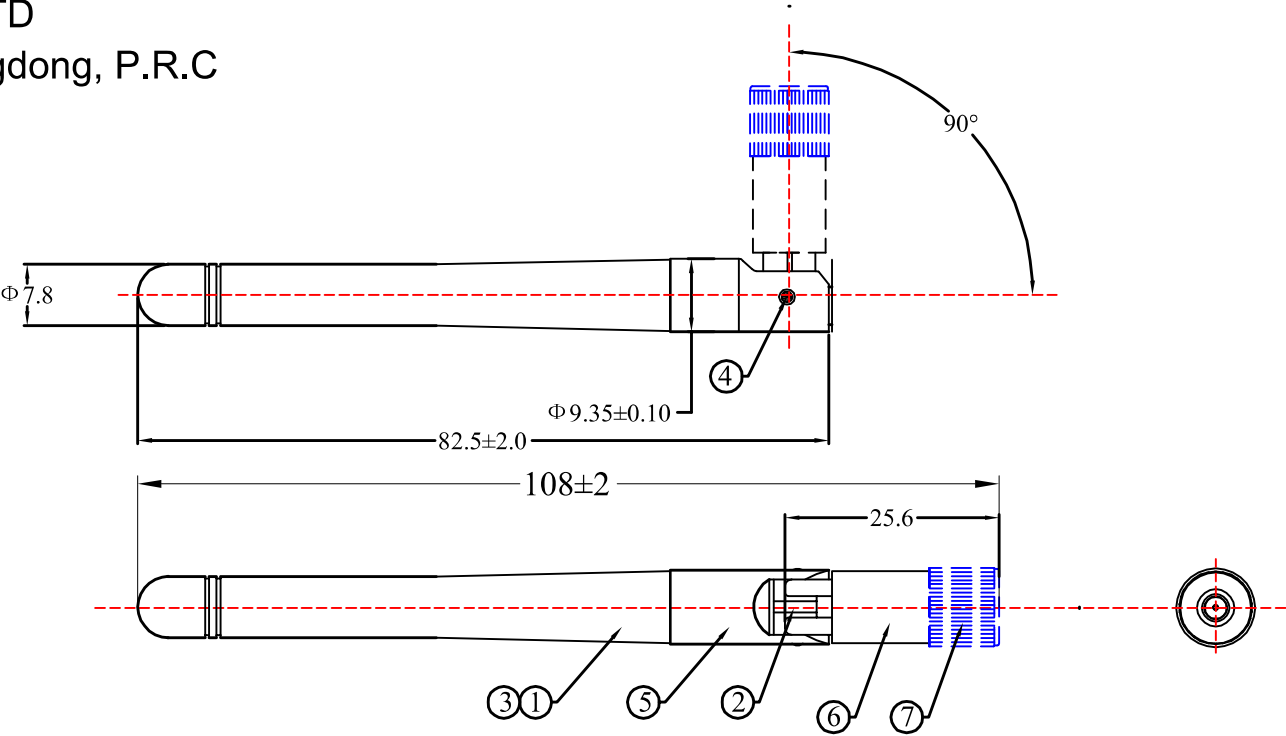


TRULY ELECTRONICS MFG., LTD
Truly industry city, shanwei Guangdong, P.R.C

REV	DESCRIPTION	MEMO
01	DRAWING RECEIVED	May.29.2022



NOTES:

1. ALL MATERIALS MUST MEET RoHS.

2. ELECTRICAL CHARACTERISTICS:

2.1 FREQUENCY RANGE:2.4GHz-2.5GHz/4.9-5.8GHz

2.2 VSWR:≤2.0

2.3 NORMINAL IMPEDANCE:50 OHM

2.4 POLARIZATION:VERTICAL

3.ENVIRONMENT:

3.1 OPERATION TEMPERATURE:-30°C TO +70°C

				THIRD ANGLE PROJECTION		DRAWING APPROVAL		LIJIE					
7	CONNECTOR	RA-SMA REVERSE STRAIGHT PLUG FOR RG-178 CABLE,BLACK.	1PC			DWN:							
6	ANTENNA BASE	PA+30%GF,COLOR;BLACK	1PC			CHK:						CUS:	PART No.
5	ANTENNA BASE	PC,COLOR;BLACK	1PC			APPD:						ITEM:	
4	RIVET	BRASS,BLACK NICKEL PLATED	2PC	TOLERANCES UNLESS OTHERWISE SPECIFIED		SIZE: A4		UNIT: mm		2.4GHz/5.8GHz ANTENNA			
3	GROUND TUSE	Ø5.2x23.0mm COPPER PIPE,MATERIAL:BRASS,INCKEL PLATED.	1PC	ONE PLACE DECIMAL .X N/A		SCALE: - : -		SHEET: 1 OF 1				CUS REV: N/A	EXC REV: 01
2	CABLE	RG-178/U RF COAXIAL CABLE,FEP JACKET, TRANSPARENT BROWN,L=83mm	1PC	TWO PLACE DECIMAL .XX N/A									
1	COVER	TPE,COLOR;BLACK	1PC	THREE PLACE DECIMAL .XXX N/A									
No.	ITEM	DESCRIPTION	QTY	HOLE DIA. VARIATION .XX N/A									
				ANGULAR DIMENSION (ENG) N/A									
BILL OF MATERIAL													
A		B		C		D		E		F			

Dual-frequency Glue Stick Antenna Test Report

Glue stick antenna picture:



Small adhesive antenna S11 data:

Frequency(MHz)	2400	2450	2500	5150	5350	5700	5900
ReturnLoss	-27.36	-17.27	-13.04	-5.19	-8.83	-12.56	-26.25
VSWR	1.16	1.42	1.68	3.50	2.17	1.53	1.14

ES071C Network Analyzer

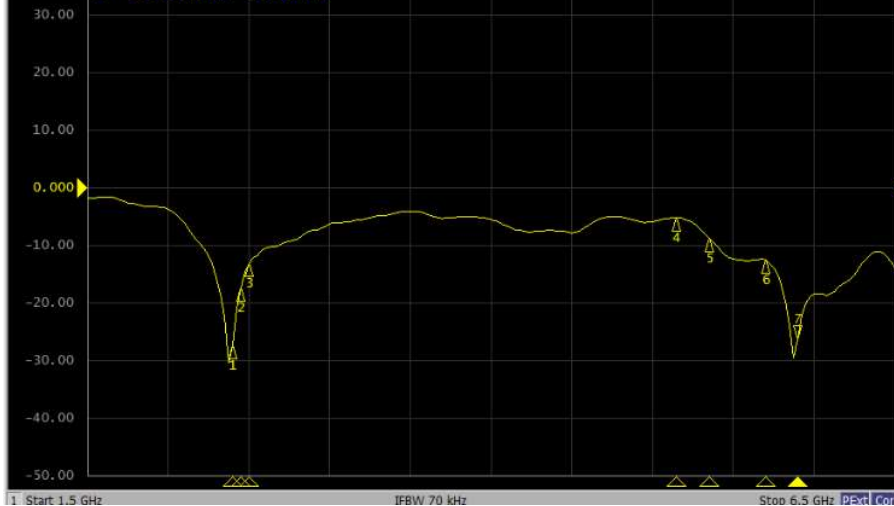
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize

Marker 7 5.900000000 GHz

▶ S11 Log Mag 10.00dB/ Ref 0.000dB [Ro Del]

1	2.4000000 GHz	-27.363 dB
2	2.4500000 GHz	-17.271 dB
3	2.5000000 GHz	-13.044 dB
4	5.1500000 GHz	-5.1919 dB
5	5.3500000 GHz	-8.8366 dB
6	5.7000000 GHz	-12.569 dB
>7	5.9000000 GHz	-26.250 dB



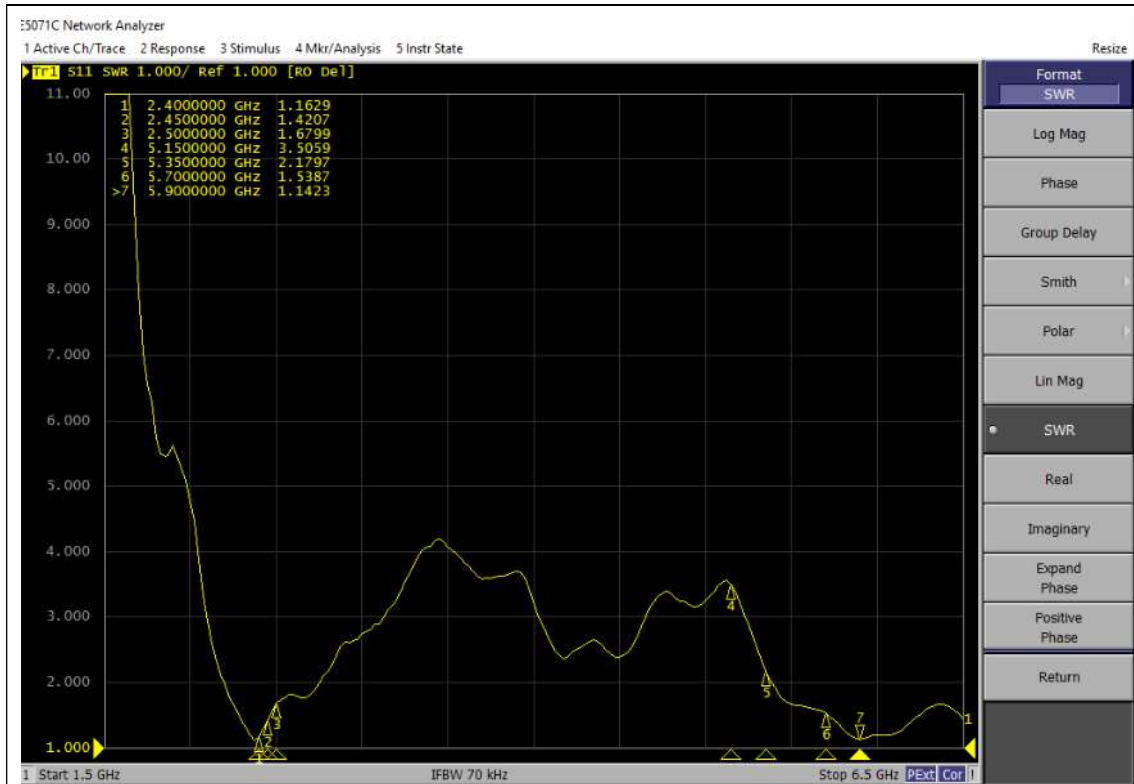
1 Start 1.5 GHz

IFBW 70 kHz

Stop 6.5 GHz

More Markers

- ✓ Marker 5
- ✓ Marker 6
- ✓ Marker 7
- Marker 8
- Marker 9
- Return



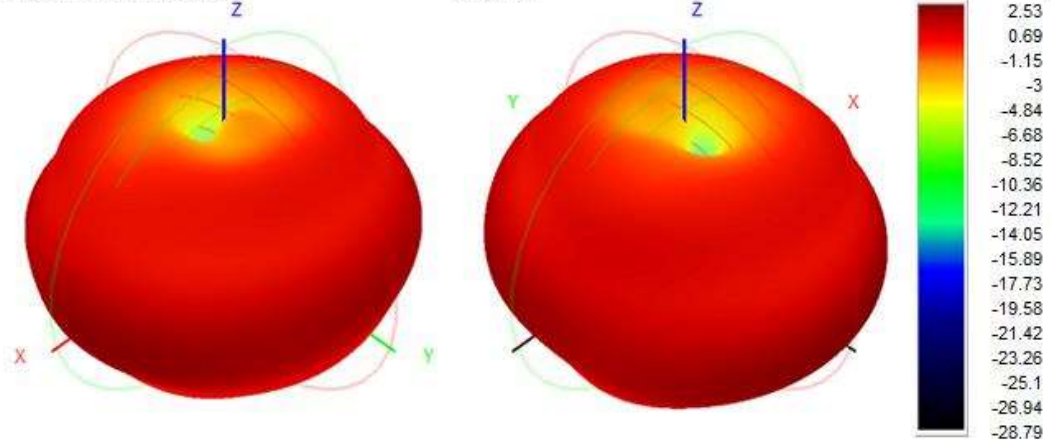
Gain efficiency and radiation pattern of small rubber rod antenna:

Fq (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	1.40	0.78	1.02	1.15	1.40	1.68	1.48	1.29	1.95	1.72	1.75
Efficie (%)	57.2	59.1	59.7	60.6	62.1	64.4	66.2	67.1	65.6	64.2	63.2
Fq (MHz)	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650
Gain (dBi)	2.67	1.83	3.50	2.93	2.27	0.39	3.28	1.93	2.54	3.03	0.95
Efficie (%)	54.1	50.6	58.2	57.3	52.7	49.10	53.80	51.60	52.60	53.40	50.00
Fq (MHz)	5700	5750	5800	5850							
Gain (dBi)	1.07	1.87	1.28	2.11							
Efficie (%)	50.2	51.5	50.8	51.4							

2450MHz

2450.0MHz H+V, Eff: 64.4%

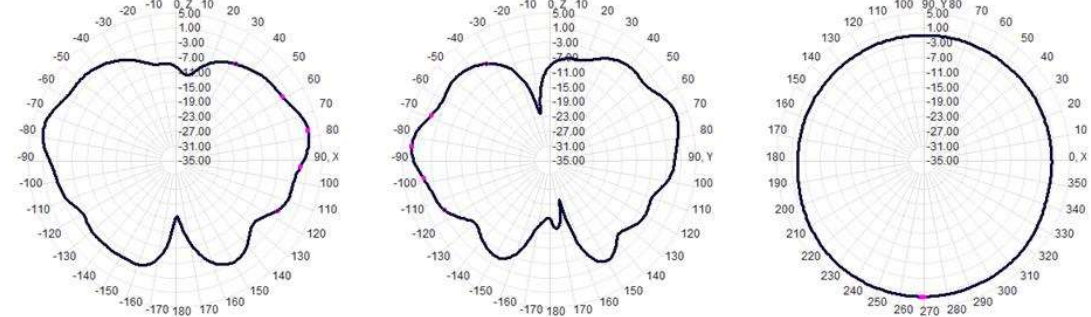
Back View



2450.0MHz Total(E1-XZ), Max= 1.91dBi

2450.0MHz Total(E2-YZ), Max= 2.53dBi

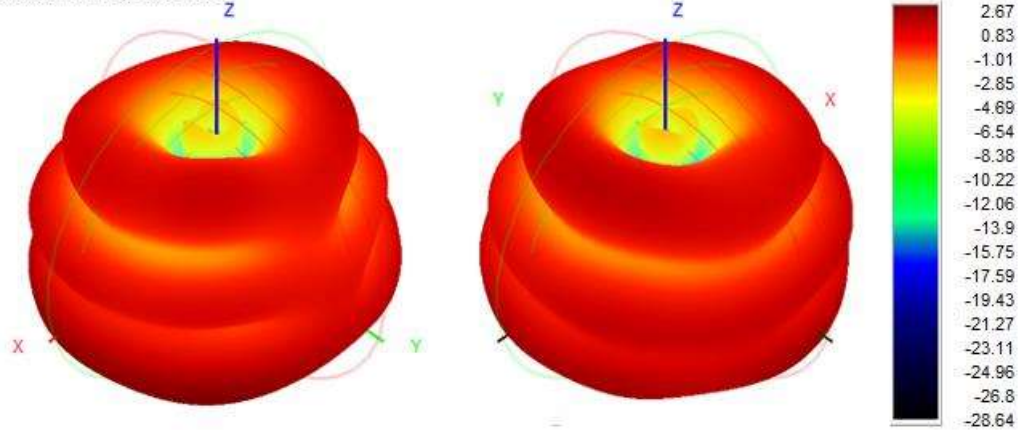
Total(H-XY), Max= 1.81dBi, CrD=2.89



5250MHz

5250.0MHz H+V, Eff: 51.6%

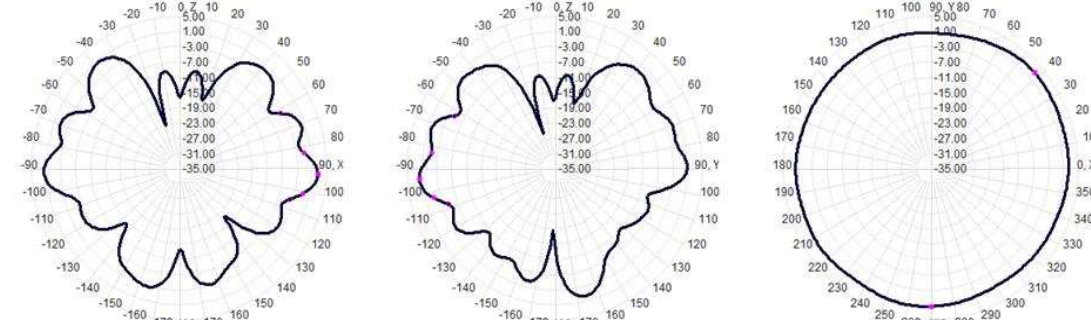
Back View



5250.0MHz Total(E1-XZ), Max= 2.36dBi

5250.0MHz : Total(E2-YZ), Max= 1.76dBi

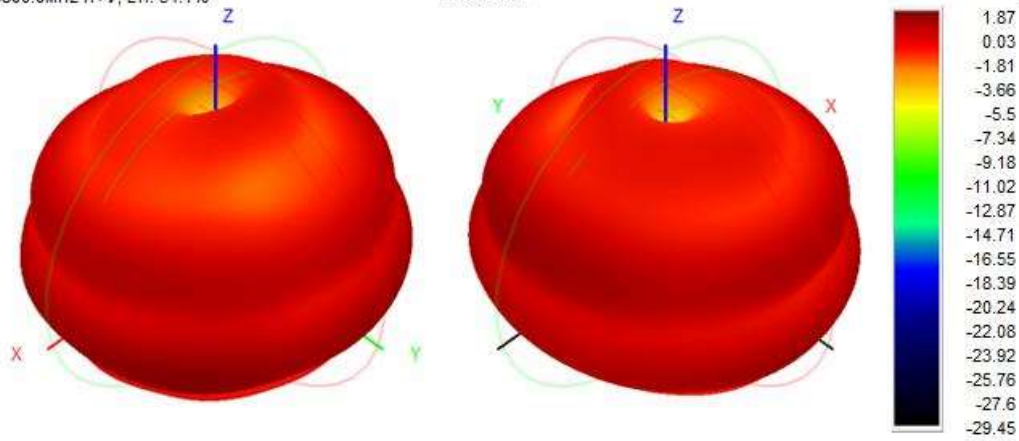
Total(H-XY), Max= 2.66dBi, CrD=2.28



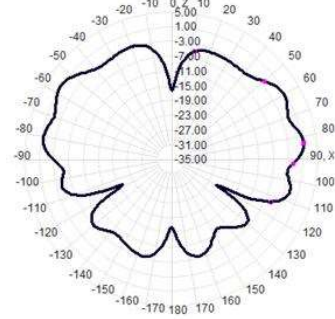
58000MHz

5800.0MHz H+V, Eff: 54.1%

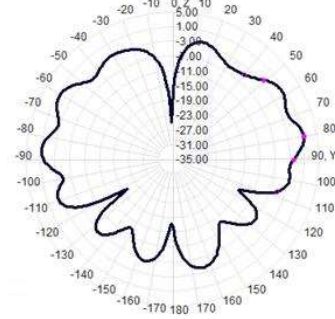
Back View



5800.0MHz Total(E1-XZ), Max= 1.13dBi



5800.0MHz Total(E2-YZ), Max= 1.10dBi



Total(H-XZ), Max= 0.28dBi, CirD=3.32

