

Antenna Specification

1. Application:

This application shall apply for antenna unit which shall be used such as automotive, conventional communications, smart home, etc..

1. Electrical Specification:

Those specifications were specially defined for customer's model, and all characteristics were measured under the model's handset testing jig .

2-1. Frequency Band:

Frequency Band	MHz
BT	2400-2500

2-2. Impedance

50 ohm nominal

2-3. VSWR

2-3-1.Measurement frequency points and VSWR value

	2400	2450	2500
Frequency Band(MHz)			
2-3-3. Typical Value:	1.28	1.44	1.63

2-3-2. Peak Gain

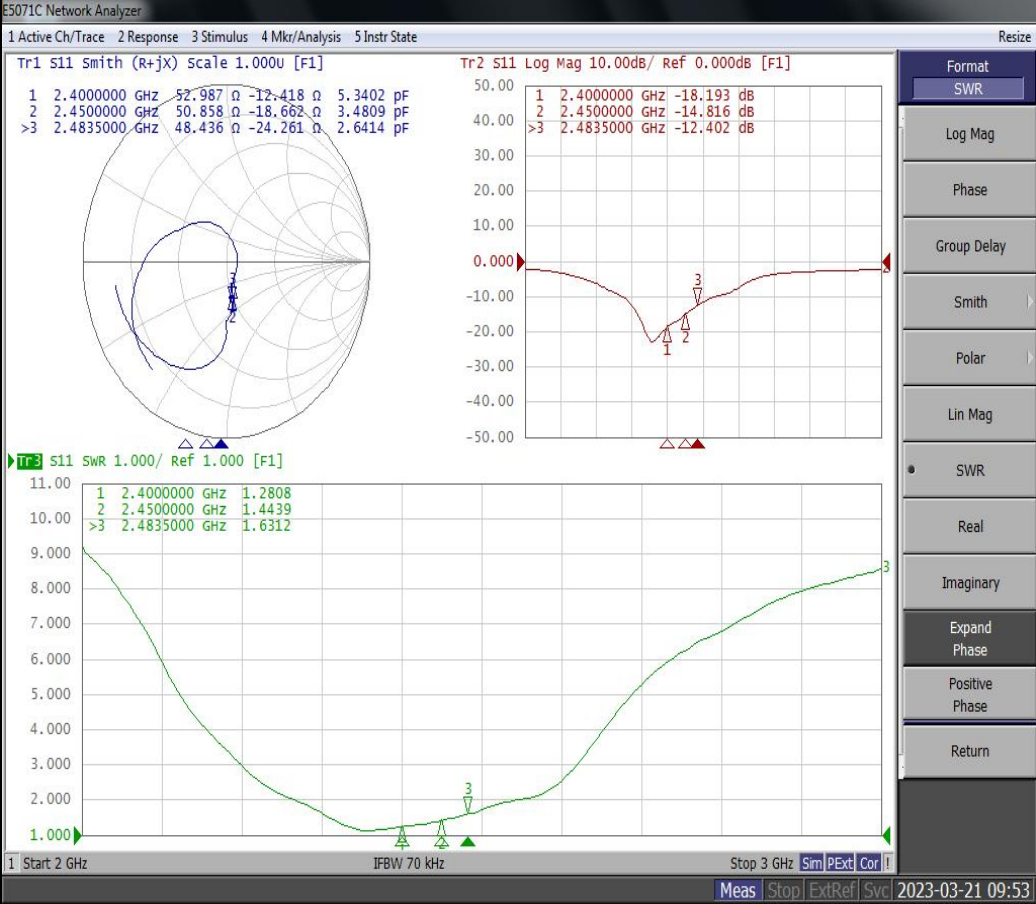
Frequency Band(MHz)	Max Gain
2-3-3. Typical Value:	1.04dBi

Model Name: MQS001

2-3-3 Measuring Method

1. A 50Ωcoaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR.
2. Keeping this jig away from metal at least 20 cm

2-3-4 Picture

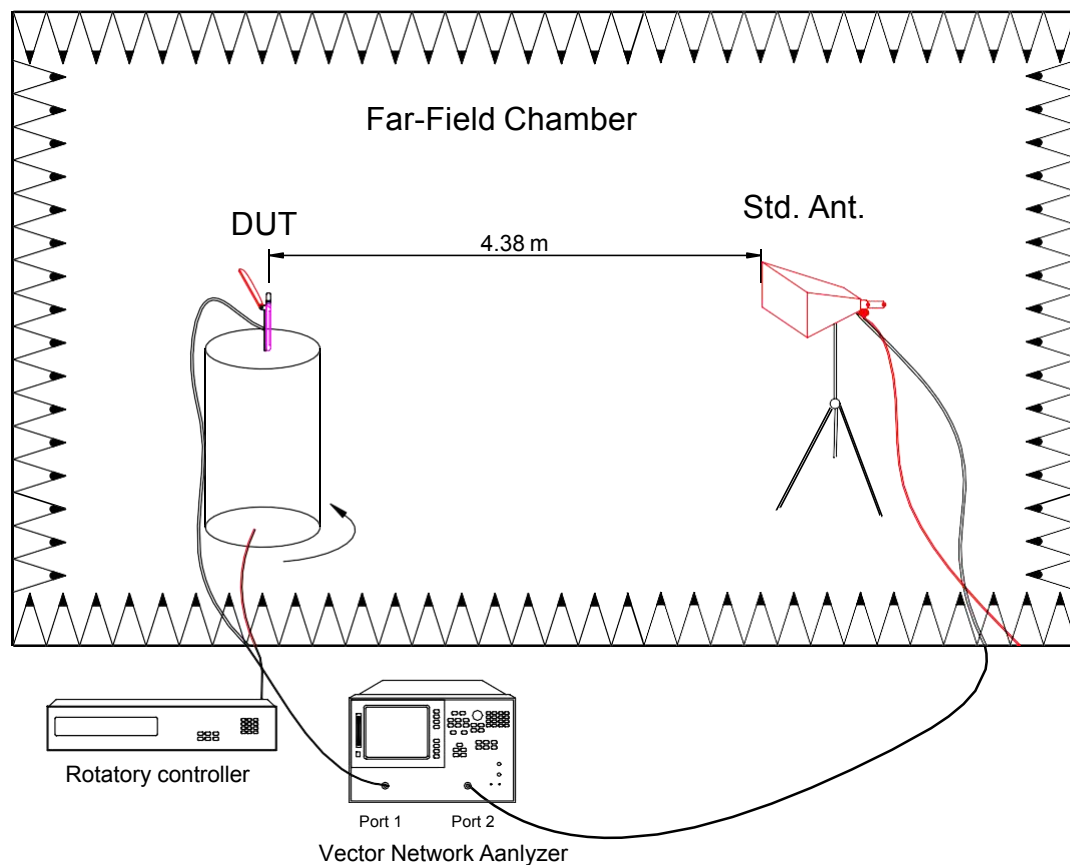


2-4. Efficiency and Gain

2-4-1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

2-4-2 Chamber definition

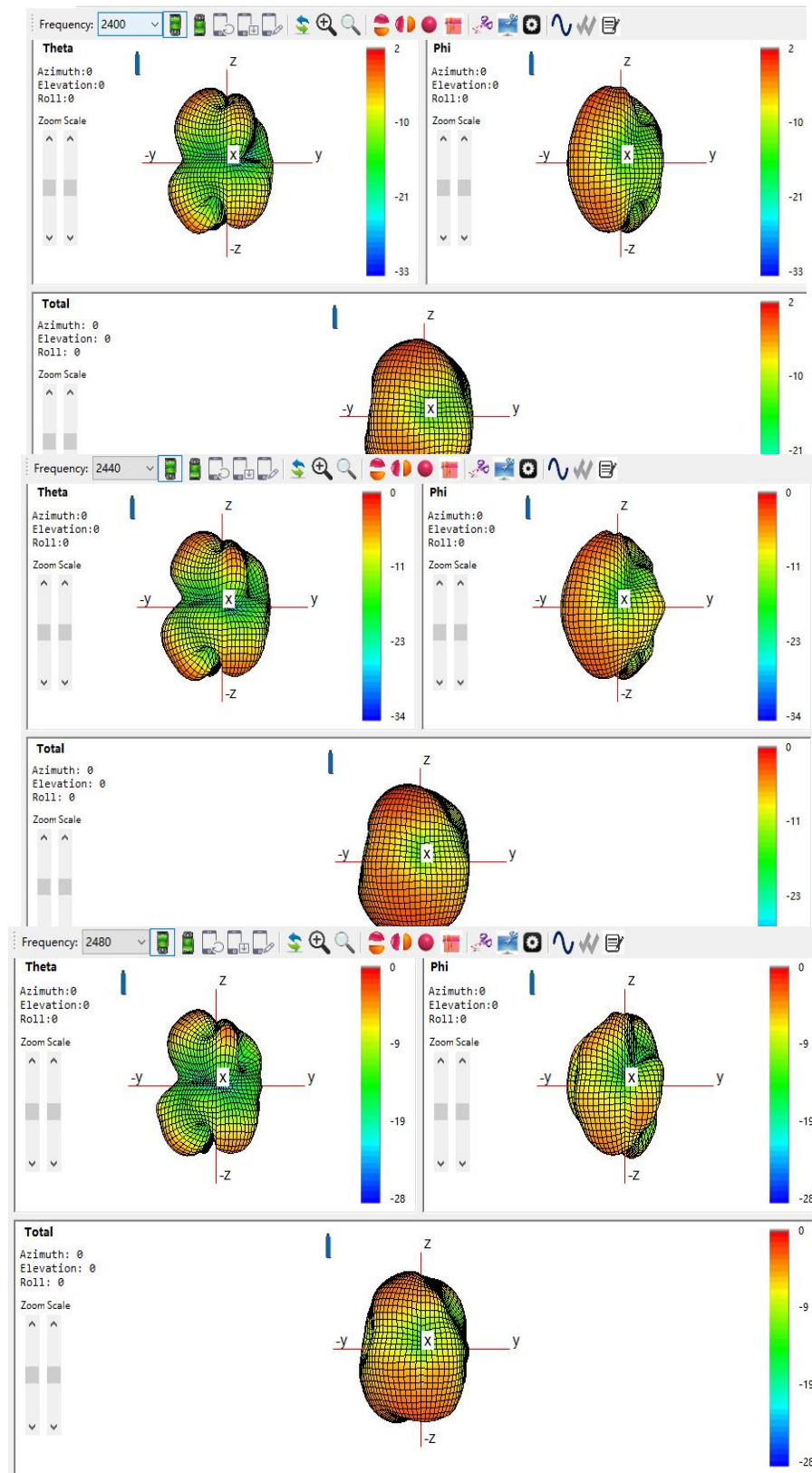


1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

2-5 Efficiency and Gain

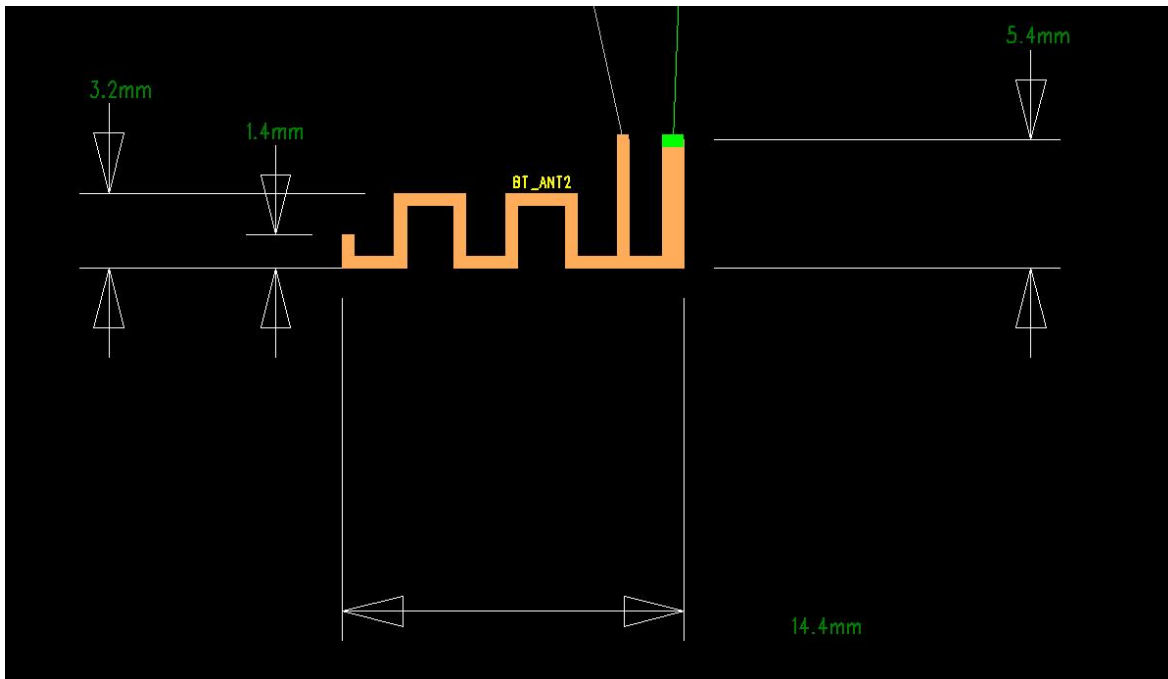
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	0.23	42.81
2410	0.76	42.41
2420	0.43	43.28
2430	1.04	42.96
2440	-0.11	43.12
2450	-0.33	42.97
2460	-0.5	43.98
2470	-0.69	41.73
2480	-0.69	42.03
2490	-0.52	42.17
2500	-0.43	43.18

2-6 3D Radiation Pattern

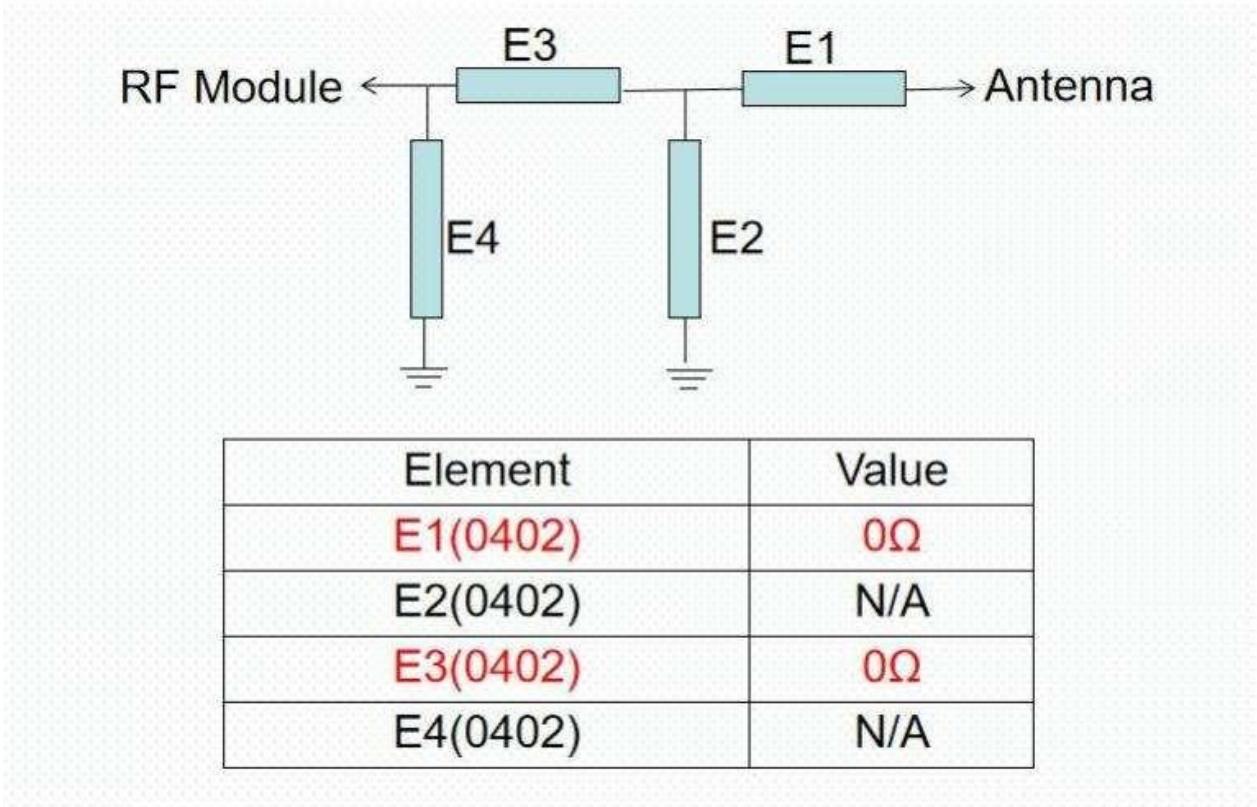


3. Mechanical Specification:

1. Mechanical Configuration (Unit: mm)
2. The appearance of the antenna is according to drawing



4. Matching Circuit



5. Antenna manufacturer:

name: Shenzhen Shiyu Circuit Board Technology Co. LTD

address: Floor 1, Building 4, Qinji Circuit Board Factory,
West Industrial Park, Shatou Community, Shajing Street,
Baoan District, Shenzhen City, Guangdong Province