Signal Plus Technology Co., Ltd.

Specification Acknowledgement Letter

SPECIFICATION FOR APPROVAL

Version
REV.: A

customer
CUSTOMER: Shanghai Sunze Intelligent Technology Co., Ltd.

Customer Part Number (P/N):

Product Name
PART NAME: 2.4G 2dBi External Antenna with SMA Male Connector, Black

Supplier part number
SUPPLIER P/N: 6035F00002

Date:

Address: Room 603, Building 30, No. 69, Gui Deng Road, Xuhui District, ShanghaiTel: 021-54266190Fax: 021-54266191

Specification

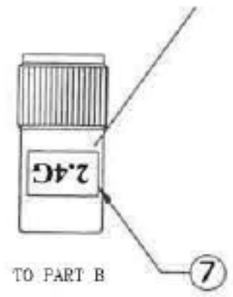
1. Electrical Properties:

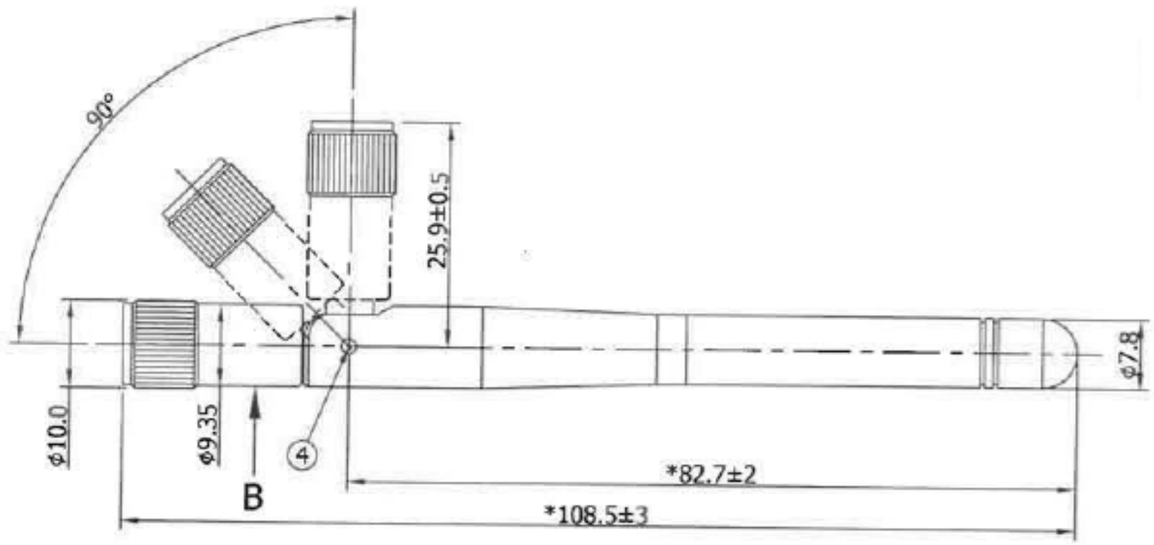
1.1 Frequency Range.	2400-2500MHz
1.2 Impedance	50 ohms
1.3VoltageStandingWave Ratio(VSWR)	<2.0
1.4 Gain	2 + 0.5 dBi

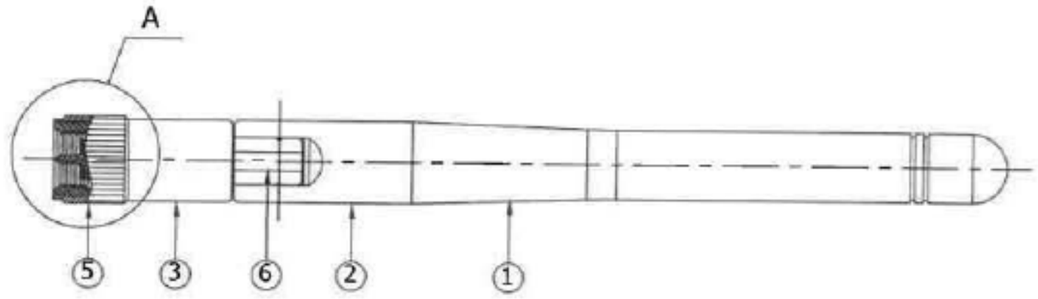
2. Physical Properties:

2.1 Cable.	RG178
2.2 Standard Plug Connector	SMA
2.3 Operating Temperature:	-20℃ to +65℃
2.4 Storage Temperature	30℃ to +75℃

Note: Attach the label to this side







Specification:

Frequency Range:2.4-2.5GHZ
Impendance:50Ω
VSWR:2.0MAX
Polarization:Vertical
Radiation:Omni
Gain:2.0dBi

Antenna Test Report OV1

Signal Plus Technology Co. Ltd

List of contents

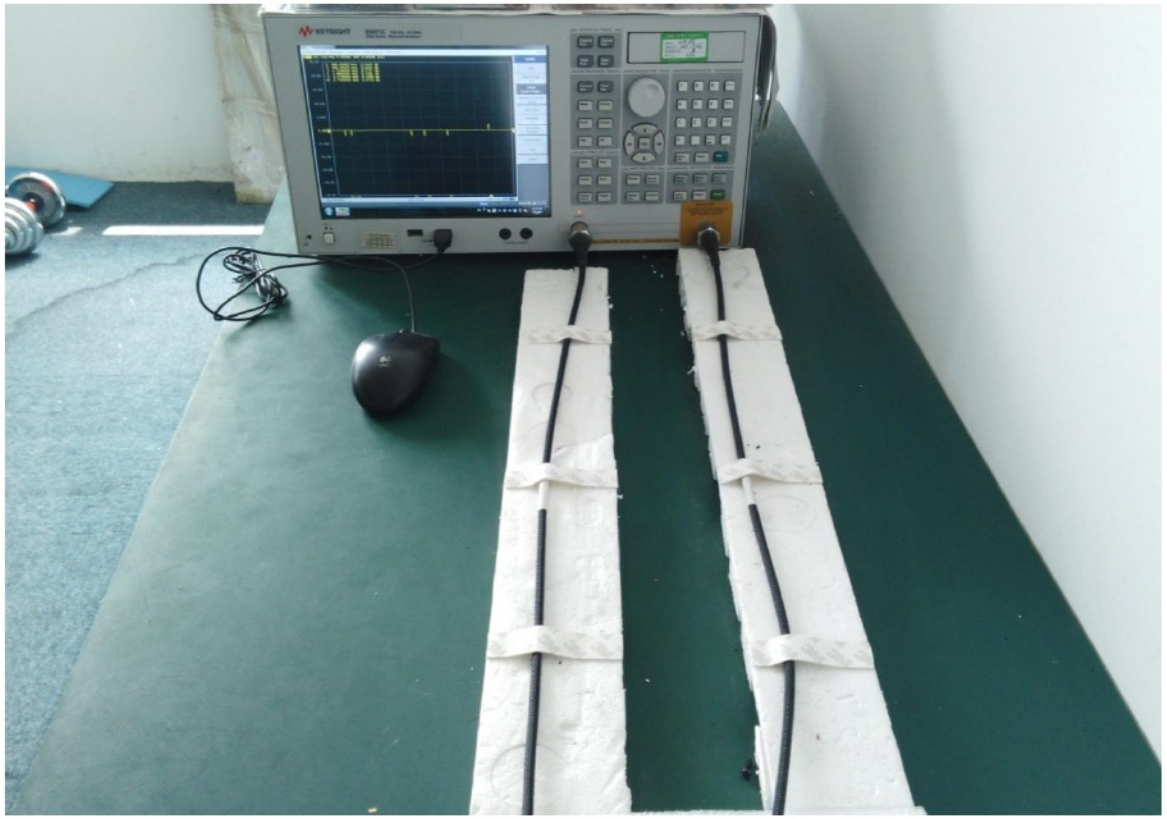
- Test setup
- Antenna Solution
- S Parameter---Return Loss, Isolation
- Efficiency and Peak Gain
- Radiation Patterns
- Summary

1.Test system description---S Parameter

1.1.Test Setup

1.1.1 VNA Test Setup

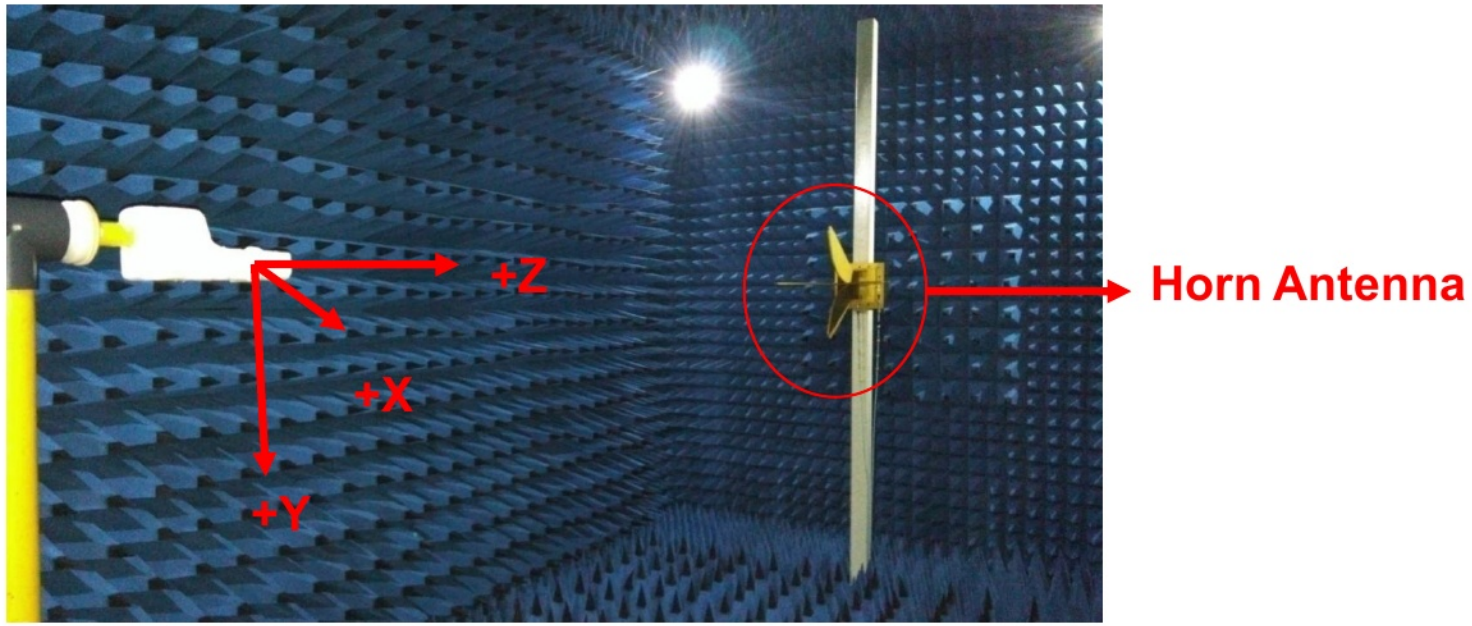
S parameter measurements (S11) were performed using an KeySight E5071C Network Analyzer and previously described tests fixtures. The isolation between antennas is also tested. The testing was performed with apparatus in free space.



1.Test system description--- Anechoic Chamber Test Setup

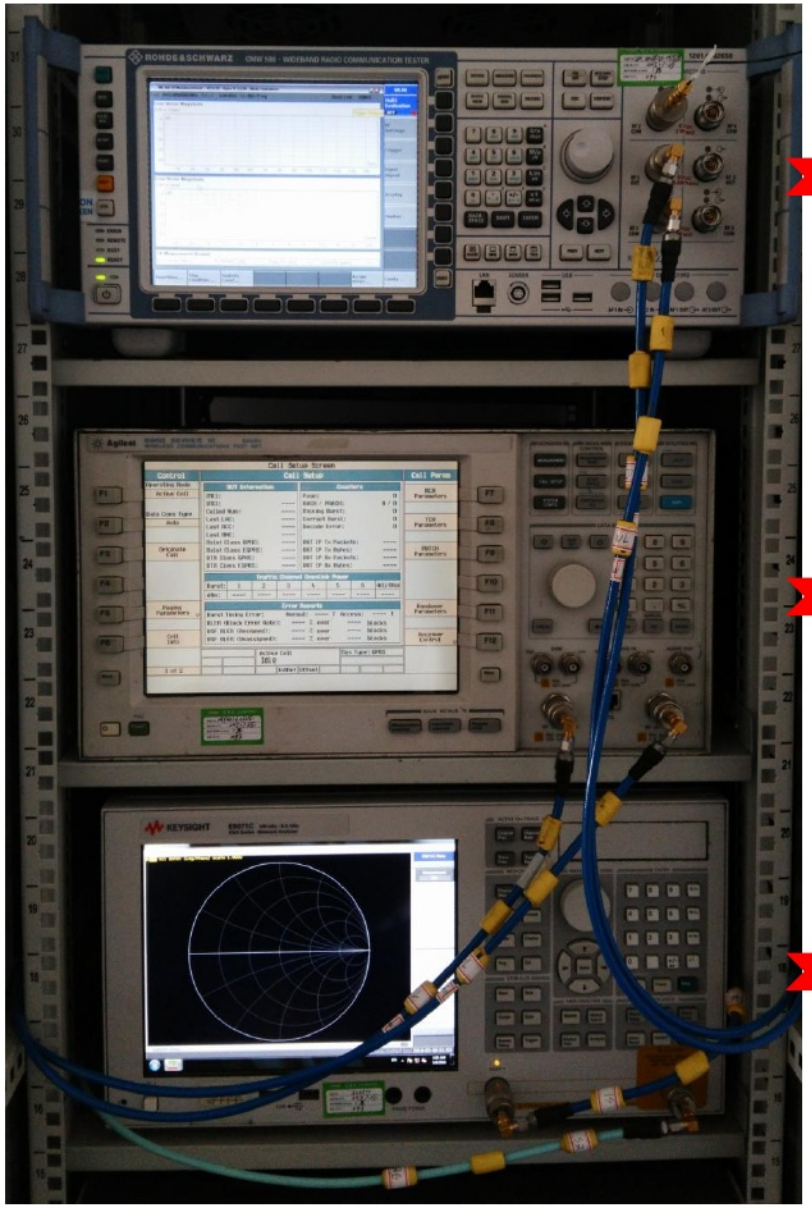
1.1.2 Anechoic Chamber Test Setup

The gain of the antenna was measured in the anechoic chamber(ETS-3D). The chamber provides less than -30 dB reflectivity from 400 MHz through 6 GHz. The chamber size is:7m*4m*3m.The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.



1.Test system description-- Test Instruments

1.1.3 Instruments



R&S CMW500 4G/WIFI
(LTE/WIFI b/g/a)

Agilent 8960

2G/3G

(GSM/CDMA/WCDMA)

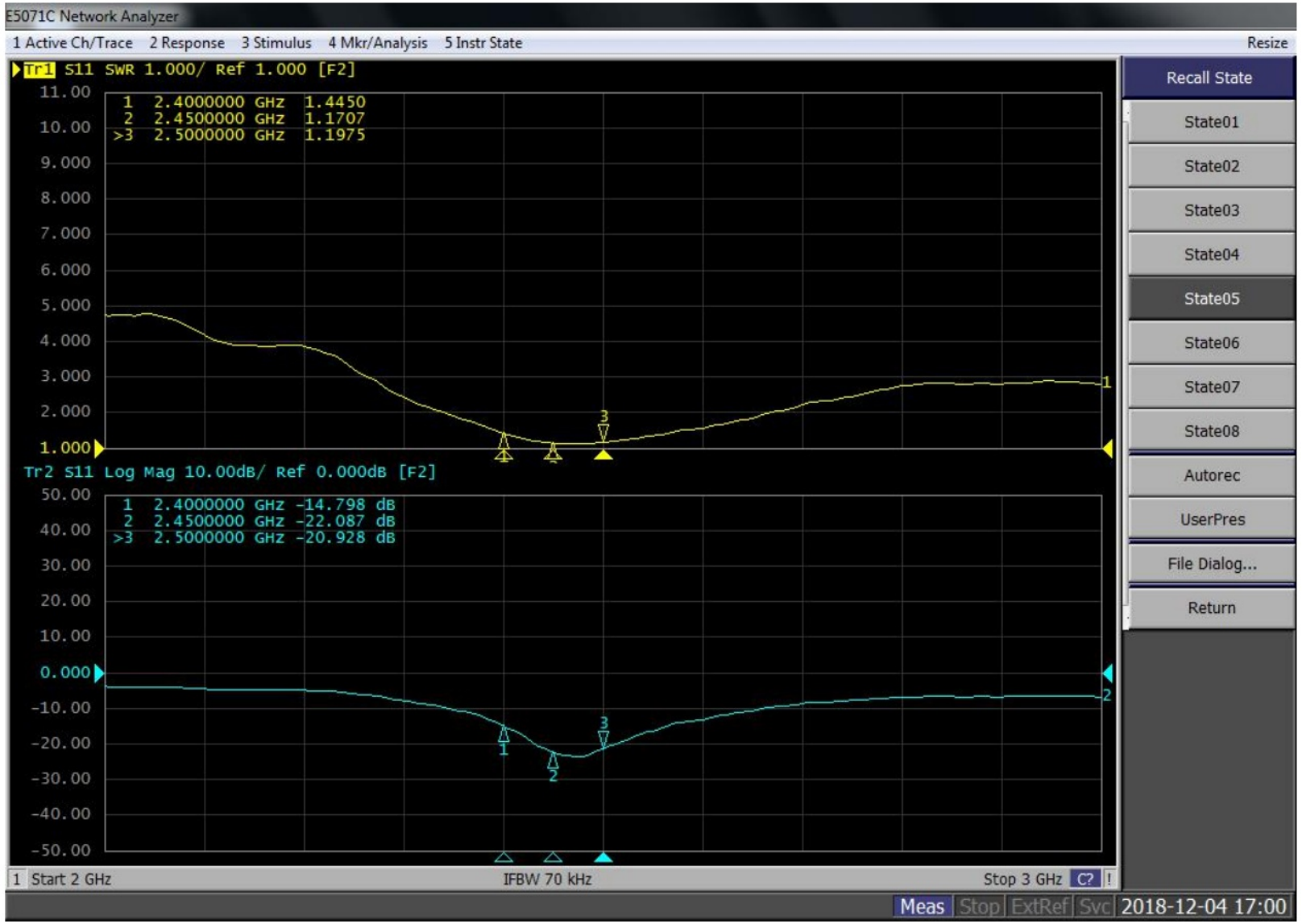
KeySight E5071C

(400MHz-6GHz)

Signal Plus Antennas

3.Test Result---Return Loss

S11:

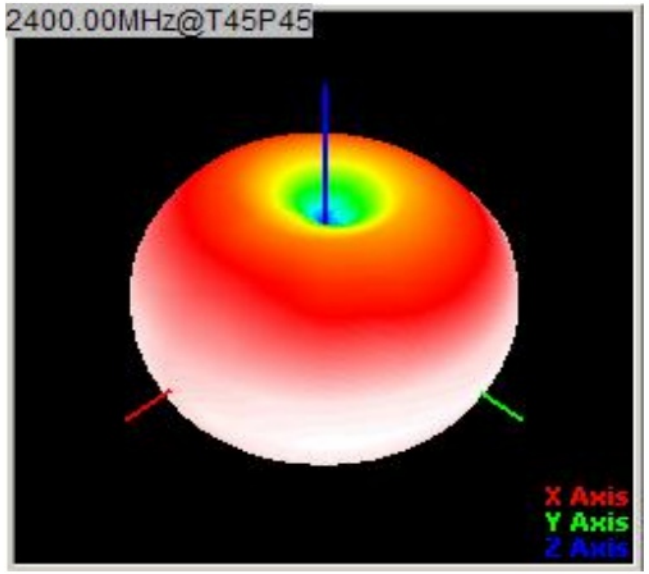


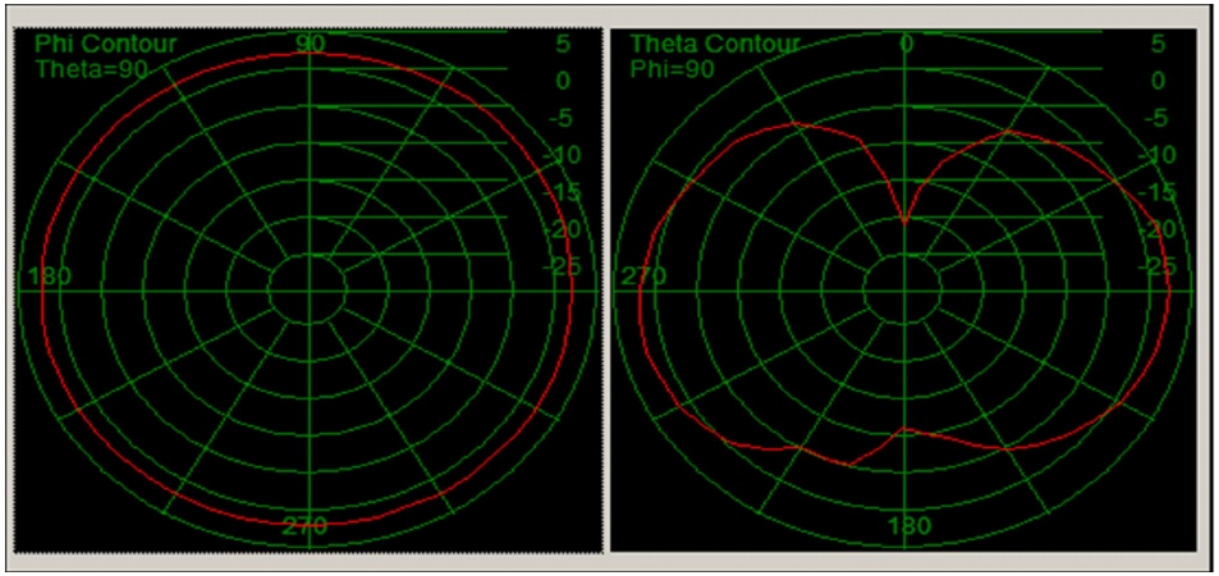
3.Test results --- Efficiency, Gain

Data:

frequency (**Megahertz**)	**2400**	**2450**	**2500**
Standing wave	1.44	1.17	1.19
Gain (dBi)	2.33	2.89	2.47
efficiency	75.80%	81.20%	75.70%

Radiation Patterns:





3.Test Result---Radiation Patterns