

## Antenna OTA Specification

<b>Product Number</b>	<b>rf210-ant</b>
<b>Product Name</b>	<b>Printed antenna</b>
<b>Manufacturer</b>	<b>Goodocom</b>
<b>Impedance</b>	<b>50 Ohm</b>
<b>Material of Radiator</b>	<b>FR-4</b>
<b>Frequency</b>	<b>2400-2500MHZ</b>
<b>Operation Temperature</b>	<b>- 40 °C ~ + 80 °C</b>

Engineer: <i>Lexus</i>	Date: <i>2020.9.15</i>
Auditor: <i>Gala</i>	Date: <i>2020.9.15</i>
Approver: <i>Beth</i>	Date: <i>2020.9.15</i>



## 1. Test purpose

After the calibration of RF parameters for test purpose is completed, antenna matching shall be carried out under the condition that the static indicators meet the standard. Verify the performance parameters of the antenna to ensure that the antenna works in the best state.

## 2. Test Environment

### 2.1 Test environment



### 2.2 List of Test Equipment

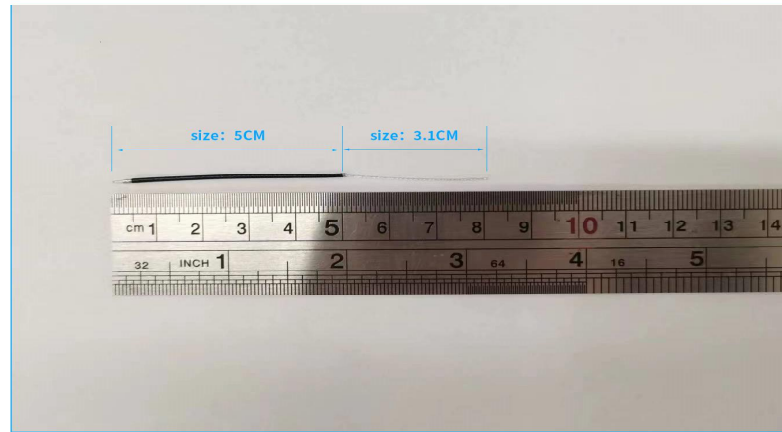
Equipment NO.	Name	Model	Calibration date	Due data
GK12	TRILOG Boardband Antenna	VULB 9163	2020/01/10	2021/01/10
GK15	MXG Vector signal generator	N5182A/E5071C	2020/01/10	2021/01/10
GK08	Compture	Y7000	2020/01/10	2021/01/10

### 2.3 Test standard

Name	Parameter	Method	Standard NO.
Mobile communication antenna	Antenna gain	Generic specification for antenna used in the mobile communication	GB/T 9410-2008
	Radiation pattern		
	VSWR		
Antenna	Radiation efficiency	IEEE standard test procedures for antenna	ANSI/IEEE Std149-1979
	Gain and directivity		

### 3. Position of antenna to be tested

The antenna of this product is mainly board antenna. This test is conducted for the onboard antenna. The following figure shows the structure of the product and the location of the onboard antenna.



#### Type of antenna:

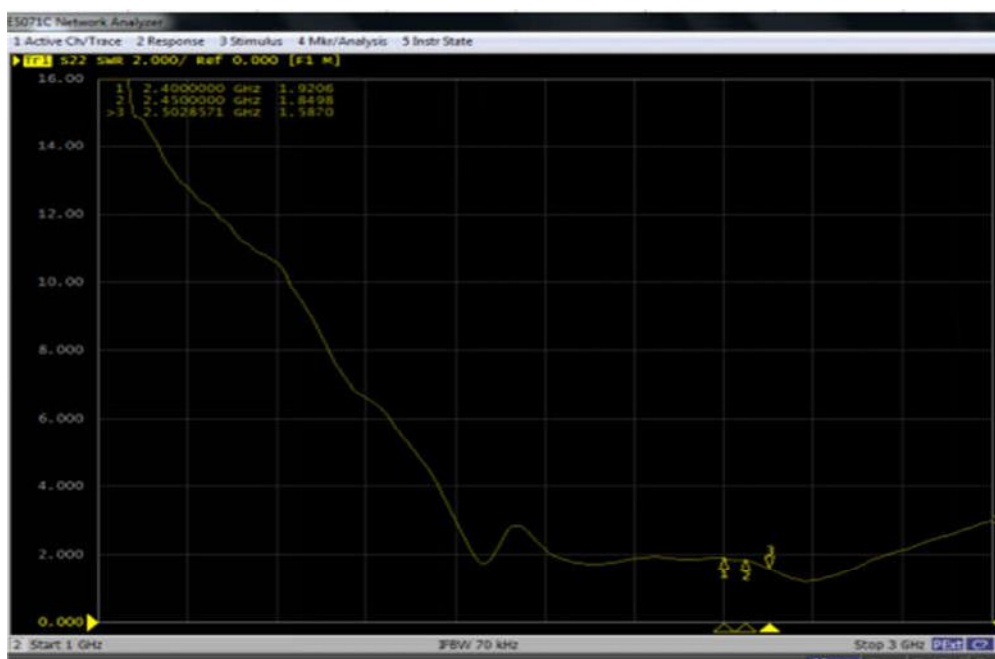
This antenna is soft Teflon insulation series coaxial cable. Is suitable for the microwave equipment, wireless communication systems and equipment.

#### Specification of antenna:

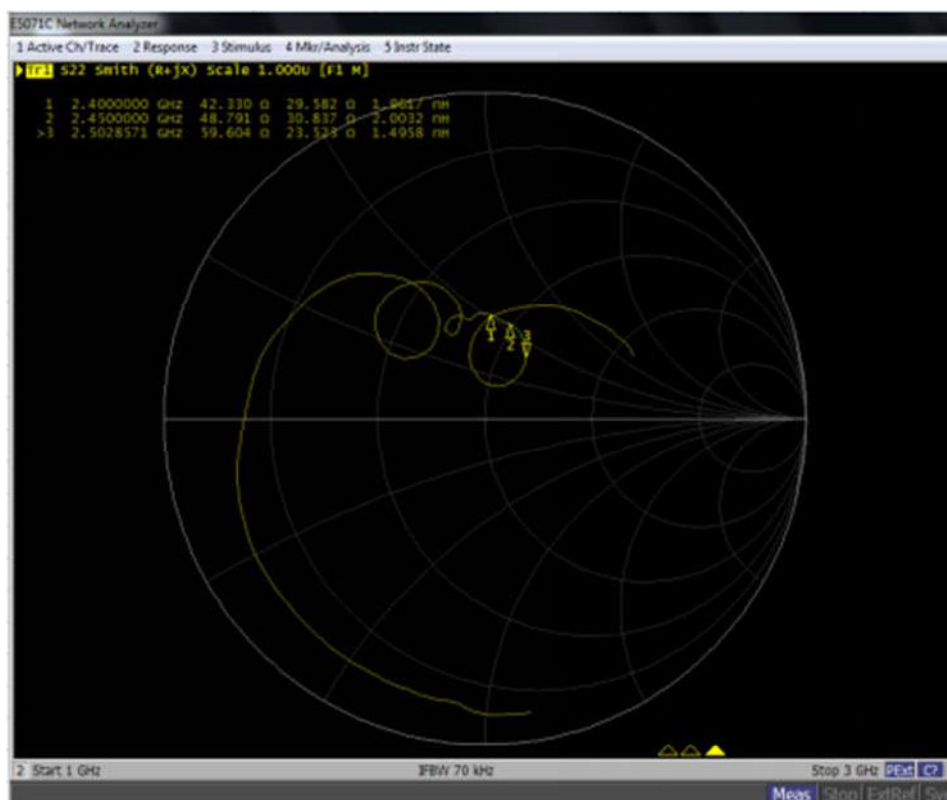
Item		NO	Materials and size
Inner conductor	Material	/	Tinned copper wire
	Composition	mm	7/0.08±0.003
	OD	mm	Φ0.24
Insulation	Material	/	Teflon FEP(200 degrees of fluorinated ethylene propylene resin)
	Thickness	mm	0.21
	OD	mm	Φ0.68±0.03
	Color	/	transparent color
Outer conductor	Material	/	Tinned copper wire
	Form	/	Weave
	OD	mm	Φ0.88±0.05
Jacket	Material	/	Teflon FEP(200 degrees of fluorinated ethylene propylene resin)
	Thickness	mm	0.125
	OD	mm	Φ1.13±0.05
	color of sheath	/	Gray or black ( Can also be processed according to customer requirements)

## 4. 2.4GHz BT Antenna test result

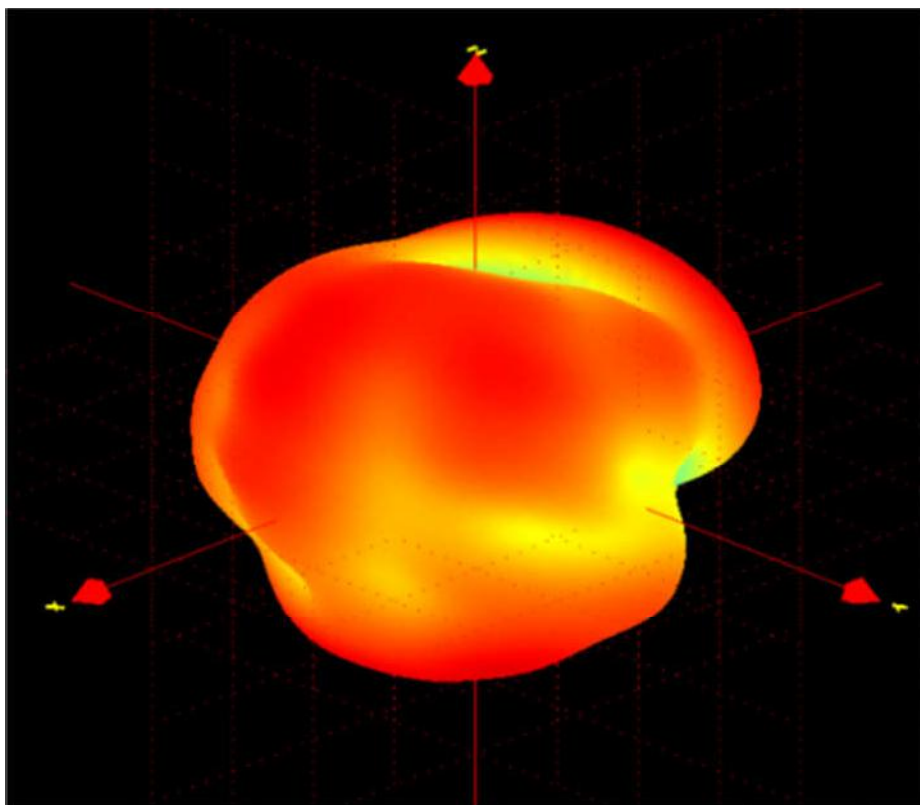
### 4.1 Standing wave ratio



### 4.2 Smith chart of antenna



#### 4.3 Directional map



#### 4.4 Efficiency and gain

Frequency	Efficiency	Gain
2402	35%	1.03dBi
2441	34%	1.14dBi
2480	37%	0.93dBi

#### 4.5 Antenna Dimensions

