



**Signal Plus Technology Co., Ltd.**

**SPECIFICATION FOR APPROVAL**

DATE: 2024.11.04

REV.: A

CUSTOMER: \_\_\_\_\_

CUSTOMER P/N: \_\_\_\_\_  
External black WiFi 5GHz antenna with 1.37mm gray cable, L=80mm,  
with RF connector

PART NAME: \_\_\_\_\_  
6346F00003

SUPPLIER P/N: \_\_\_\_\_ Q'TY: \_\_\_\_\_ Pcs

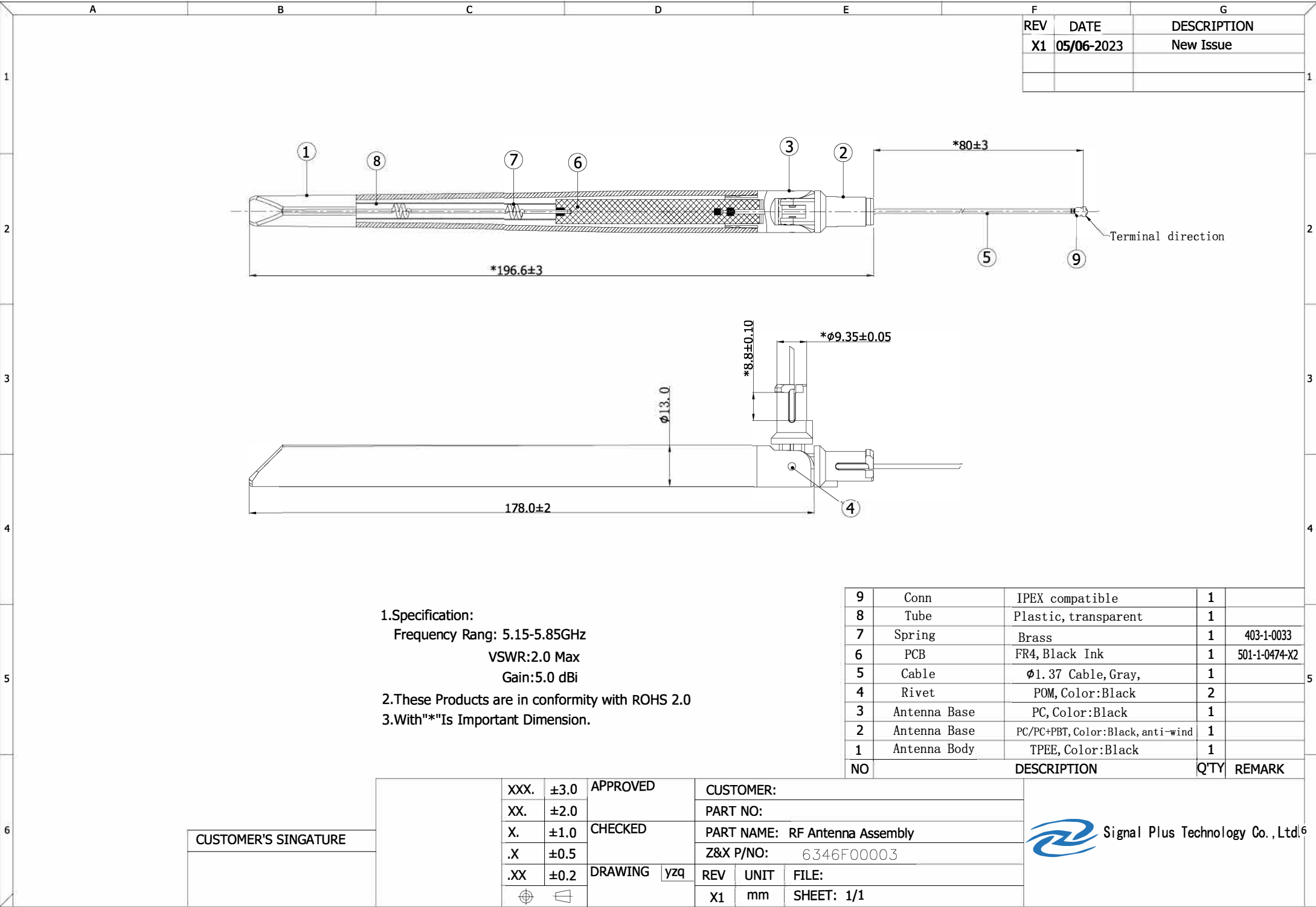
|                            |            |              |
|----------------------------|------------|--------------|
| Date: CUSTOMER APPROVED BY |            |              |
| Approved by                | Checked by | Confirmed by |
|                            |            |              |

|                    |            |             |
|--------------------|------------|-------------|
| SUPPLIER SIGNATURE |            |             |
| Approved by        | Checked by | Prepared by |
| Andy               |            | Cindy       |

ZX-QT-RD-0011-A1

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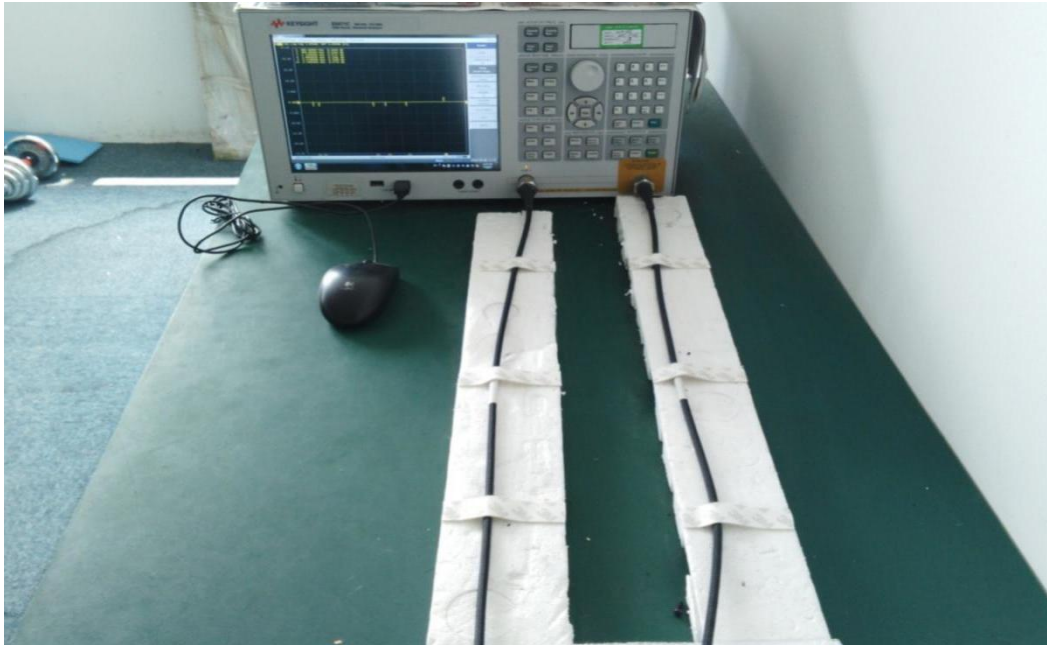
## Antenna Test Report

## 1. RF Fixture Experiment

### 1.1 Test Setup

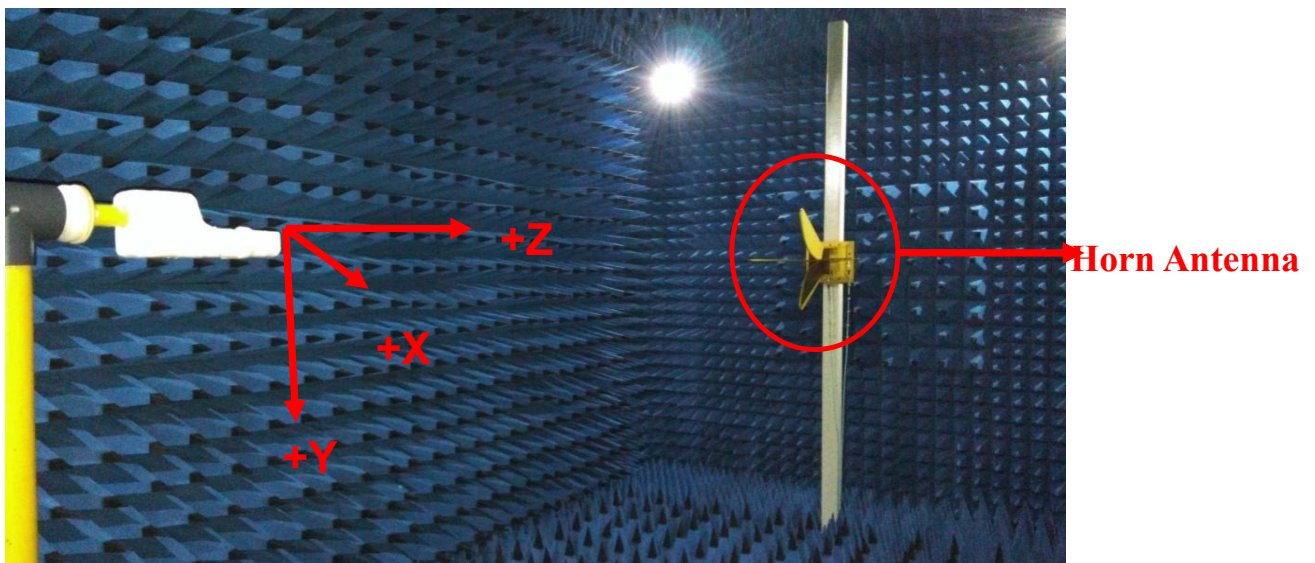
#### 1.1.1 VNA Test Setup

VSWR and Return Loss measurements ( $S_{11}$ ) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

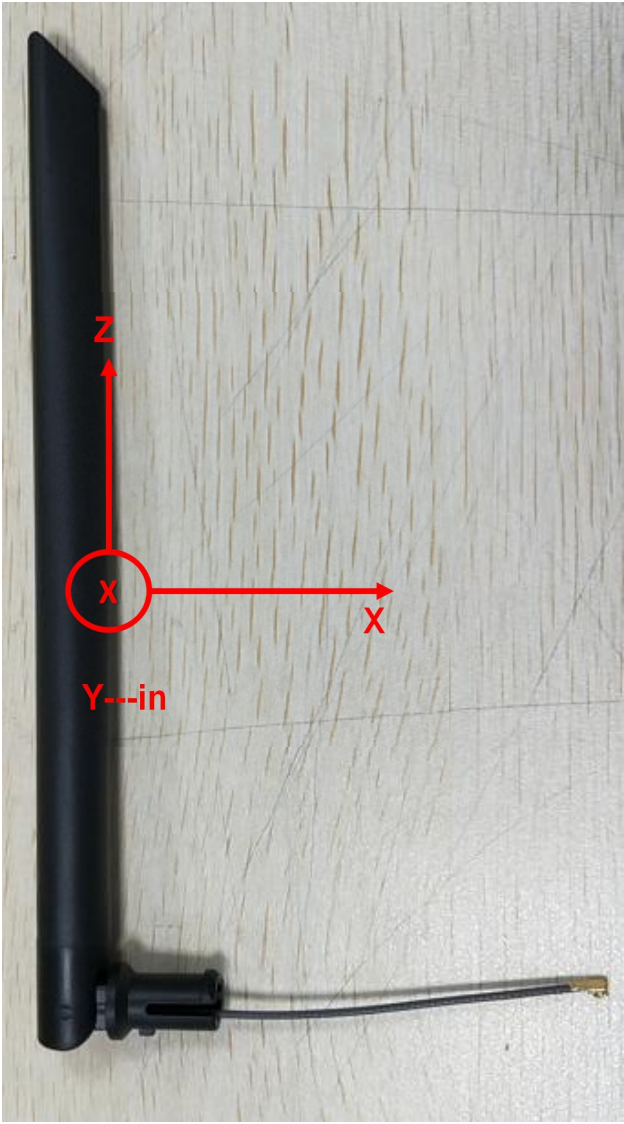


#### 1.1.2 Anechoic Chamber Test Setup

The gain of the antenna was measured in the anechoic chamber. 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.



2.Antenna Solution

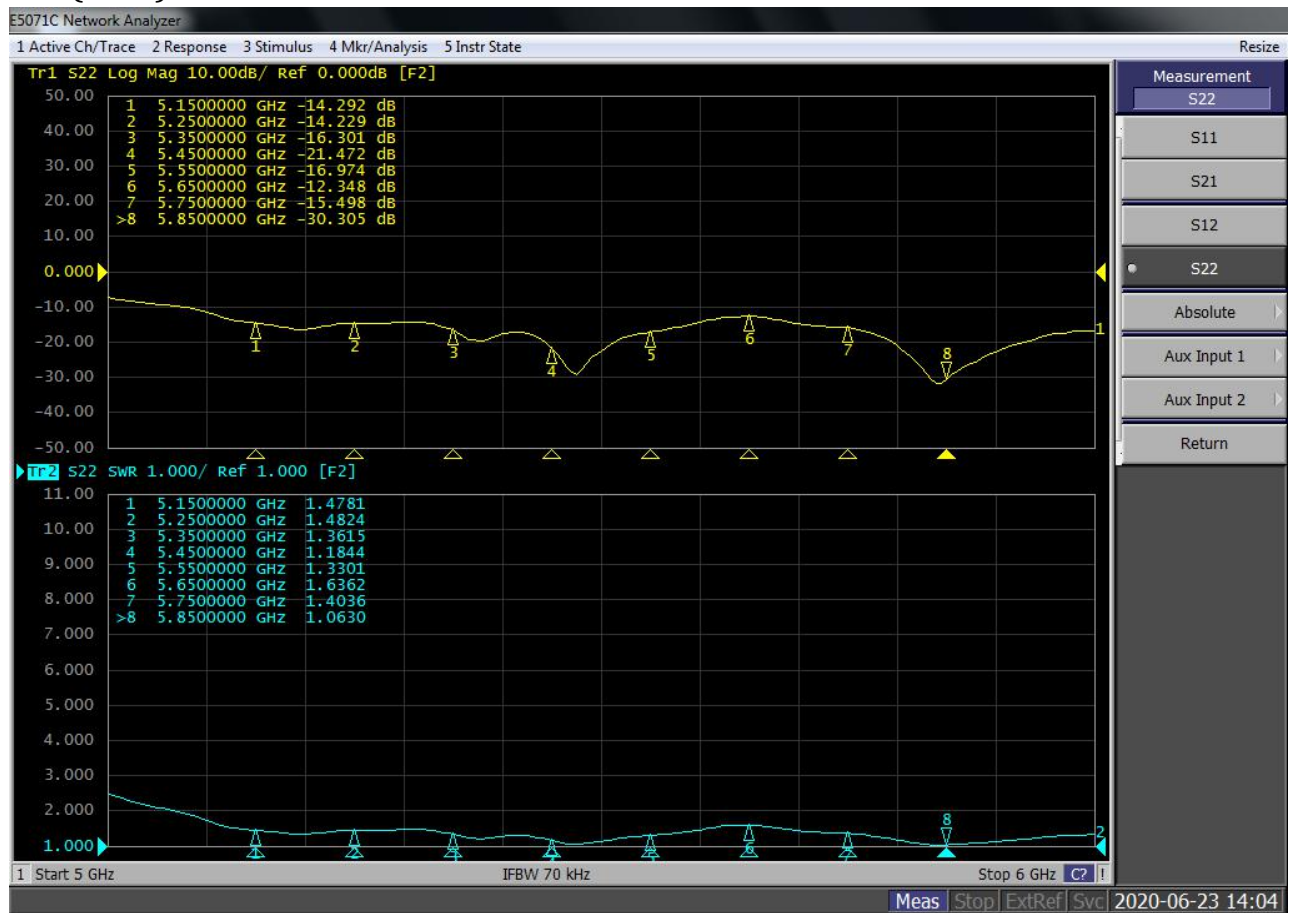


Data Preview

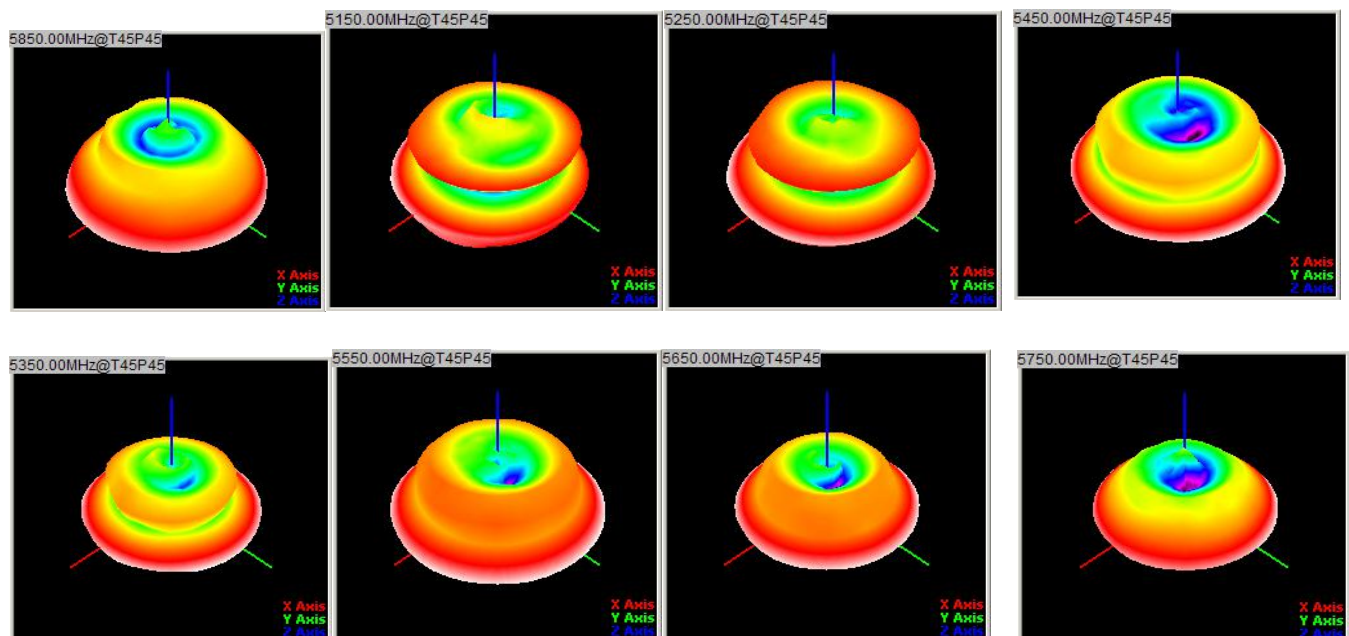
5.8G:

| Freq.(MHz) | 5150  | 5250  | 5350  | 5450  | 5550  | 5650  | 5750  | 5850  |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|
| VSWR       | 1.58  | 1.17  | 1.32  | 1.53  | 1.21  | 1.18  | 1.45  | 1.56  |
| Gain(dBi)  | 5.18  | 5.23  | 5.29  | 5.15  | 5.27  | 5.15  | 5.27  | 5.18  |
| Eff.       | 77.3% | 78.8% | 78.3% | 78.5% | 78.7% | 78.5% | 78.1% | 78.7% |

## S11(5.8G)

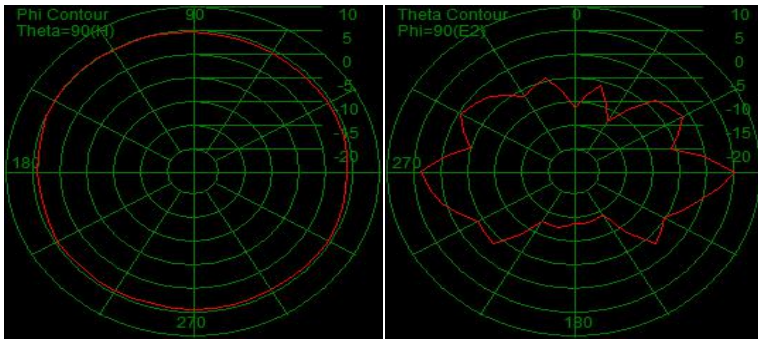


## Radiation patterns:3D

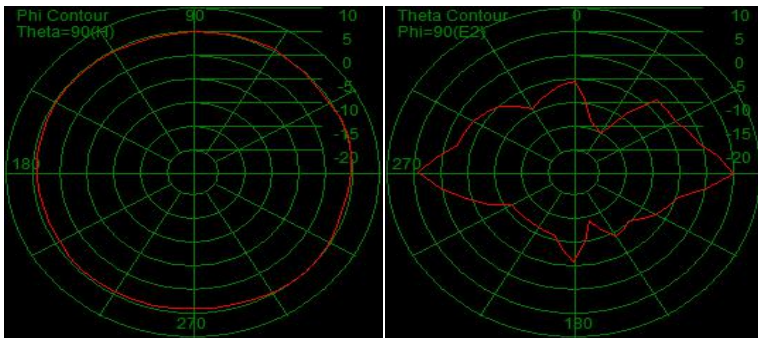


## Radiation patterns:2D

### 5150MHz



### 5550MHz



### 5850MHz

