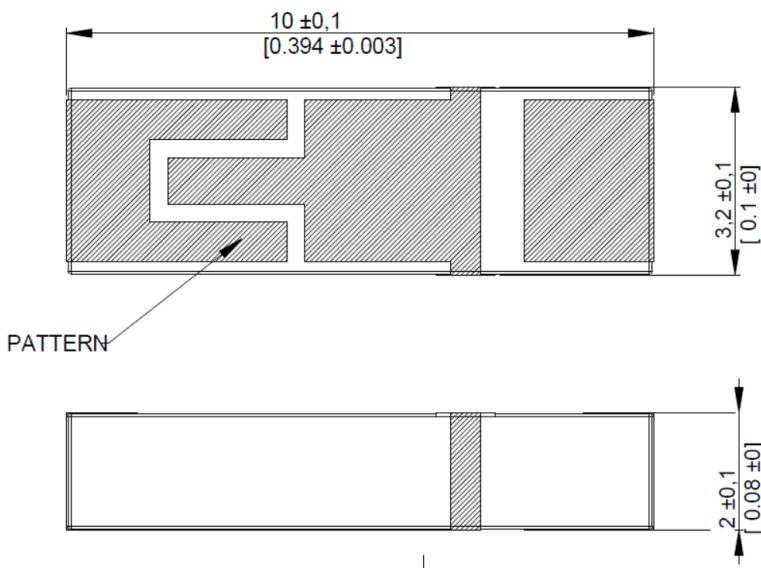


**Description:** ISM868/915, ISM2.4G**Series:** Ceramic antenna**PART NUMBER:** W3320**Features:**

- 3 in1 –combo antenna
  - Port 1: 868/915MHz
  - Port 2: 2.4GHz
- Compact size 3.2x10x2mm
- SMT mounting on PCB
- Tape & Reel packing
- High isolation between ports >20dB

**Applications:**

- ISM band radios
- 868MHz, 915MHz, 2.4GHz
- IoT, M2M, set top boxes, devices requiring small embedded multiband ISM antenna



All dimensions are in mm / inches

Issue: 2049

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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**Description:** ISM868/915, ISM2.4G**Series:** Ceramic antenna**PART NUMBER:** W3320**ELECTRICAL SPECIFICATIONS**

|                    |  |
|--------------------|--|
| Frequency          | ISM868/915MHz, ISM2.4GHz                         |
| Nominal Impedance  | 50Ω  |
| Return Loss        | <-7dB @868/915MHz<br><-5dB@2.4                   |
| Gain               | 1dBi +/- 1 dB@868/915MHz<br>3dBi +/- 1 dB@2.4GHz |
| Radiation Pattern  | Omni   |
| Polarization:      | Vertical   |
| Power withstanding | 2W   |

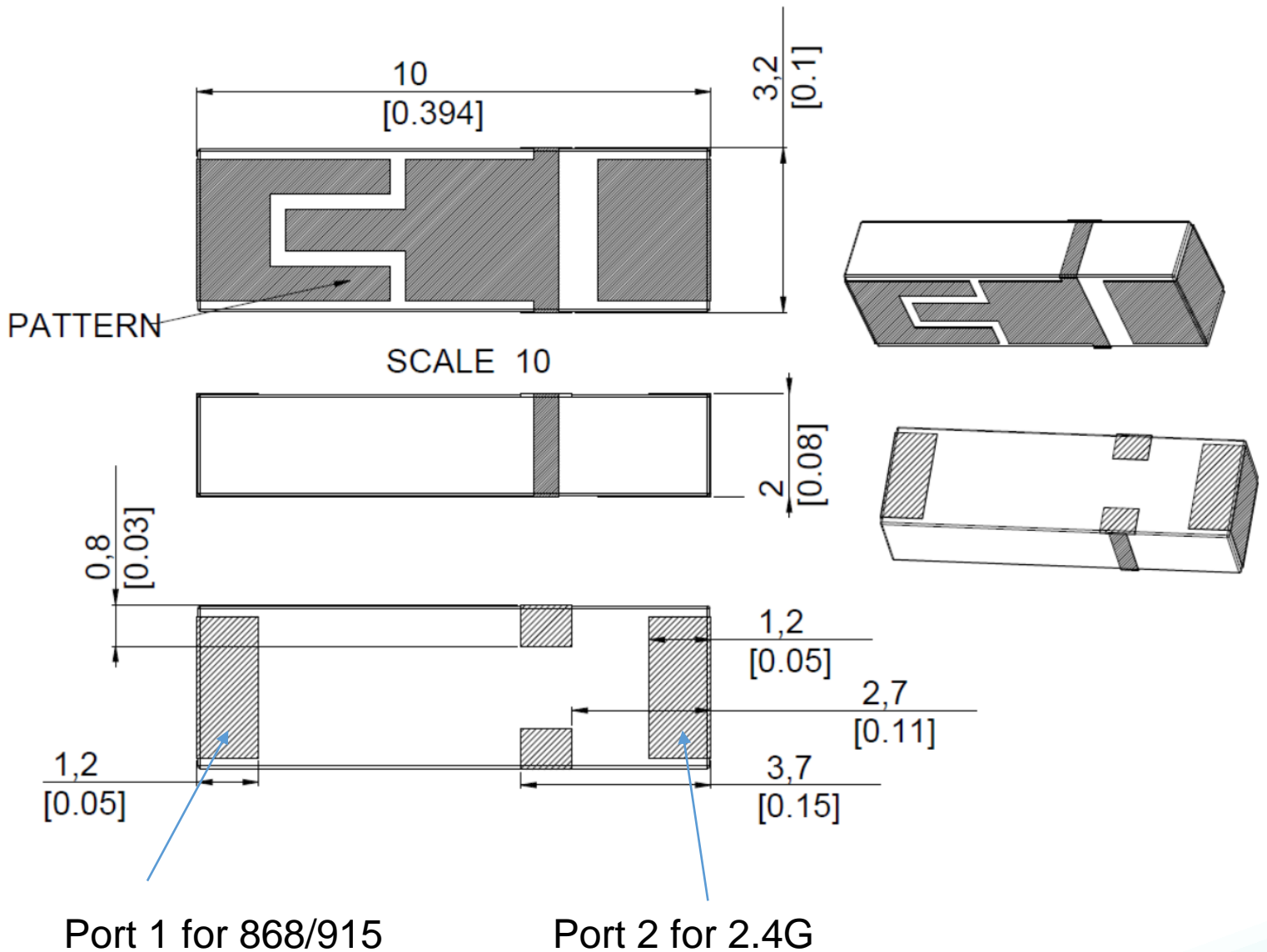
**Series:** Ceramic antenna**PART NUMBER:** W3320**MECHANICAL SPECIFICATIONS**

|                    |                      |
|--------------------|----------------------|
| Weight             | 0.3 g                |
| Overall Length     | 10[0.39] MM[INCHES]  |
| Over all width     | 3.2[0.12] MM[INCHES] |
| Over all thickness | 2[0.08] MM[INCHES]   |
| MSL Level          | 1                    |

**ENVIRONMENTAL SPECIFICATIONS**

|                       |            |
|-----------------------|------------|
| Operating temperature | -40/+85° C |
|-----------------------|------------|

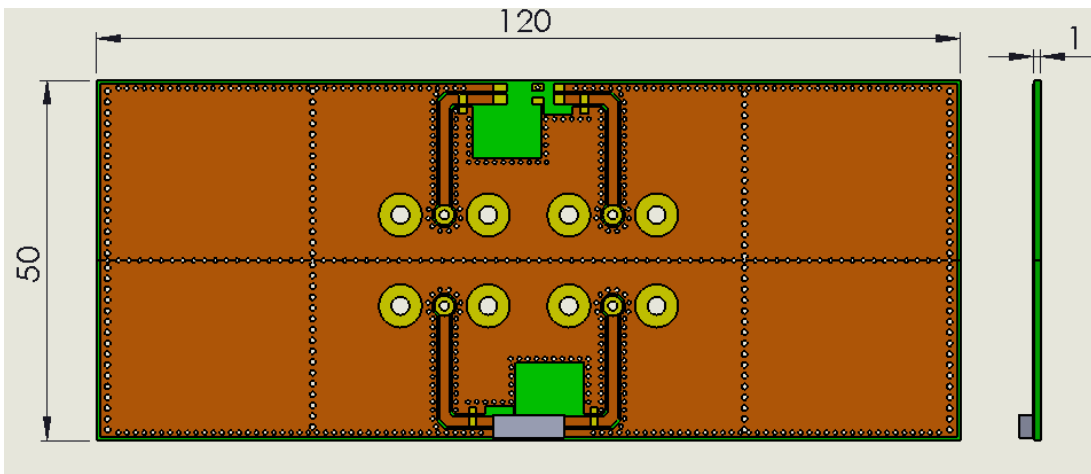
MECHANICAL DRAWING



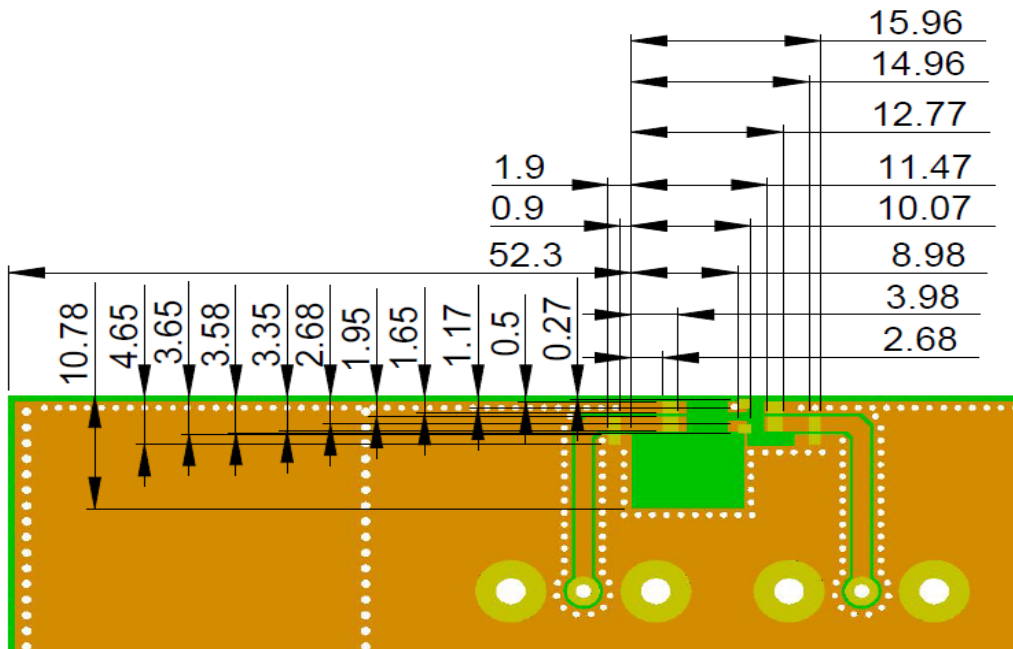
## OTHER SPECIFICATIONS

### PCB LAYOUT

1, PCB material, FR4, size, 120X50X1mm



2, Clearance area (Top)



Issue: 2049

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

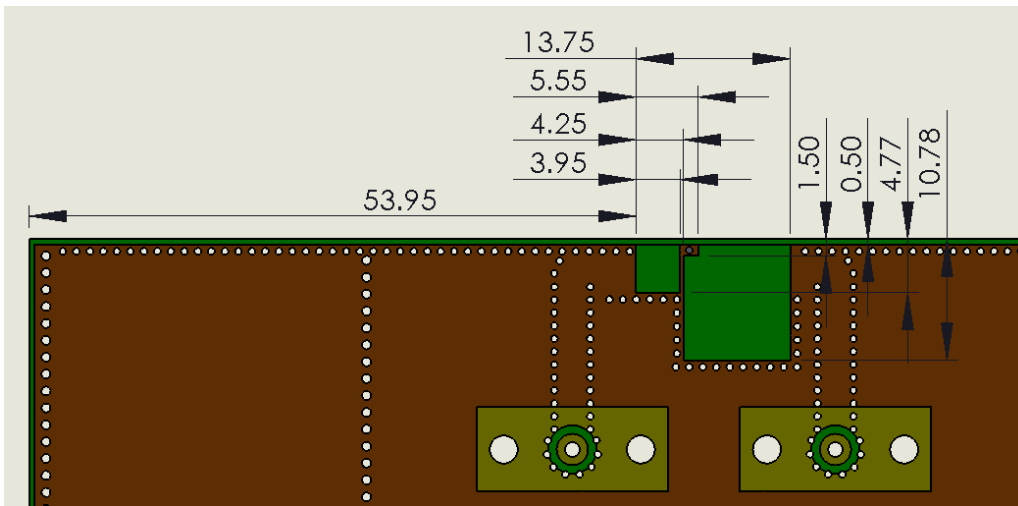
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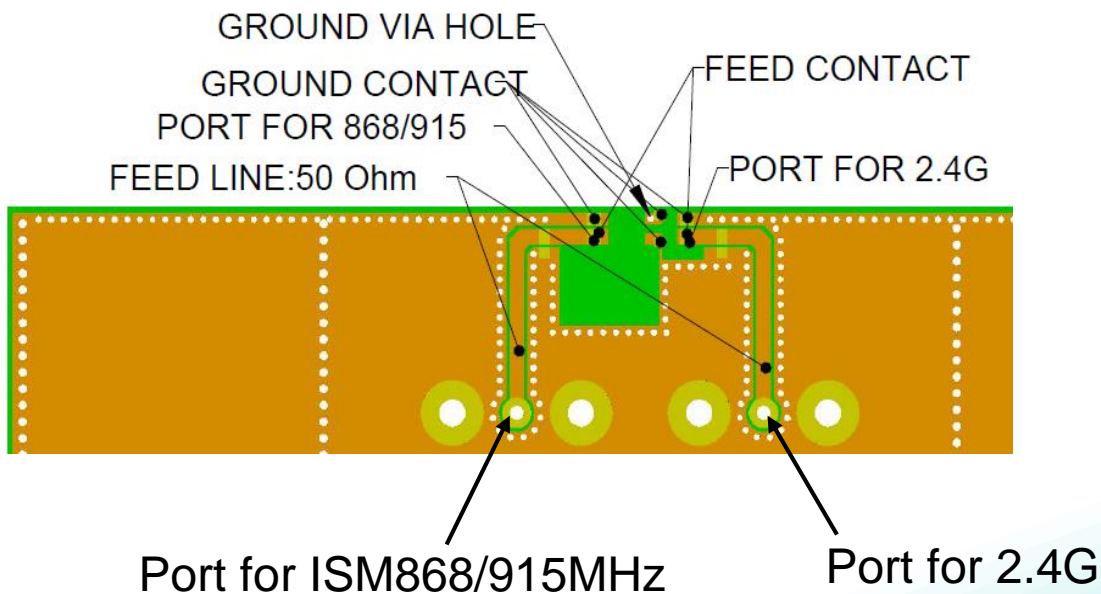
## OTHER SPECIFICATIONS

### PCB LAYOUT

#### 3, Clearance area (Bottom)



#### 4, PCB Features

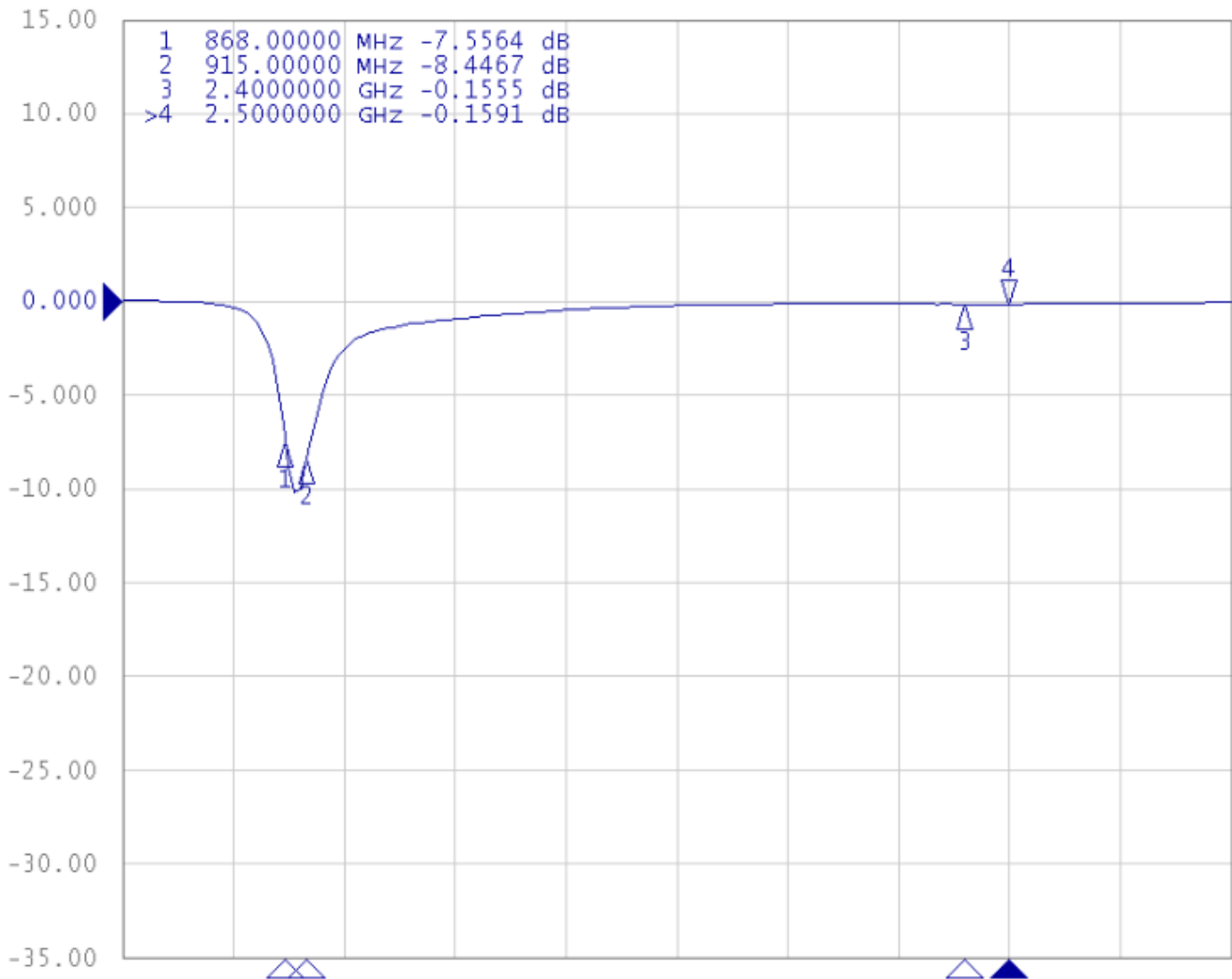


## CHARTS

### Return Loss

#### ISM868/915MHz

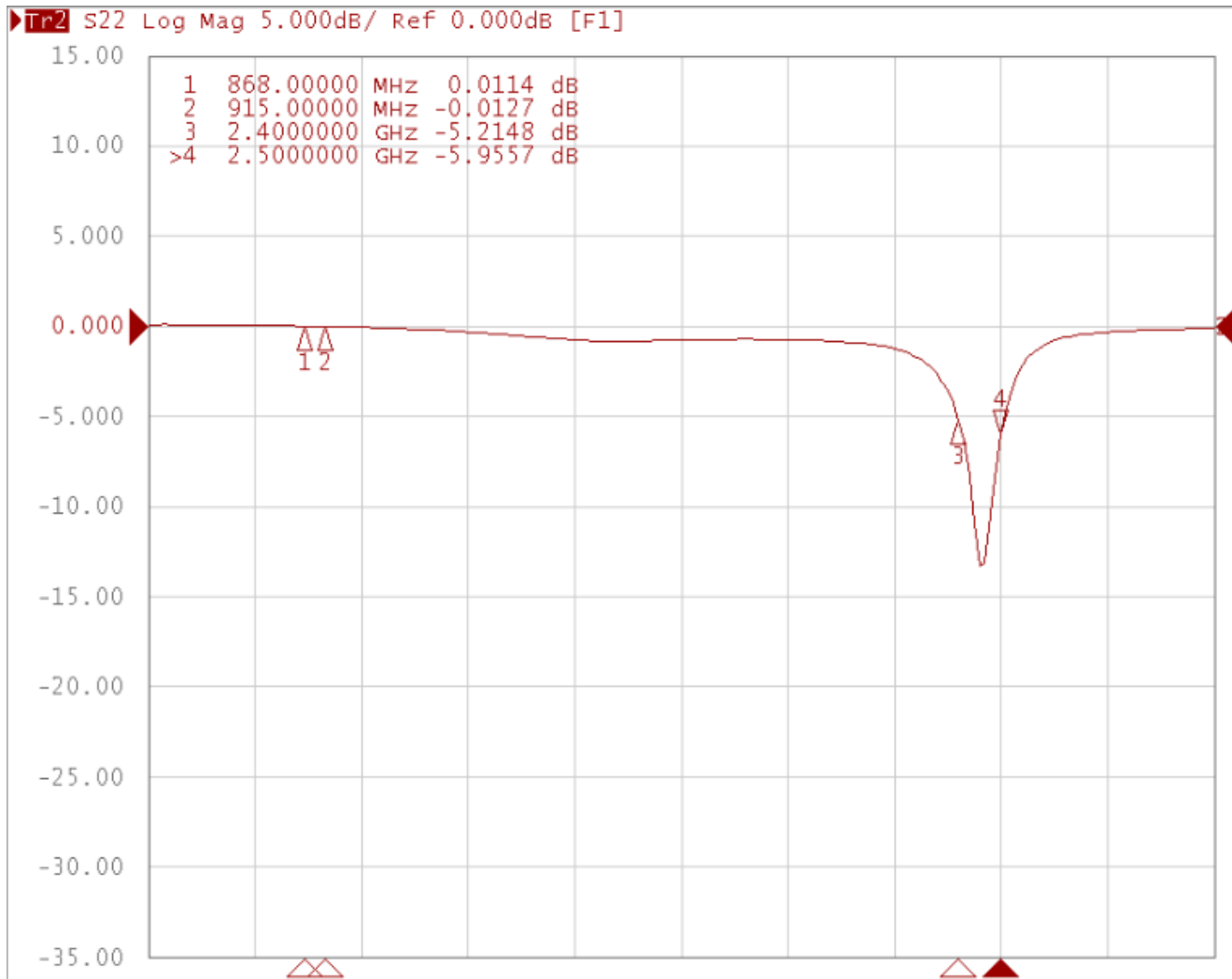
▶ Tr1 S11 Log Mag 5.000dB/ Ref 0.000dB [F1 Smo]



## CHARTS

### Return Loss

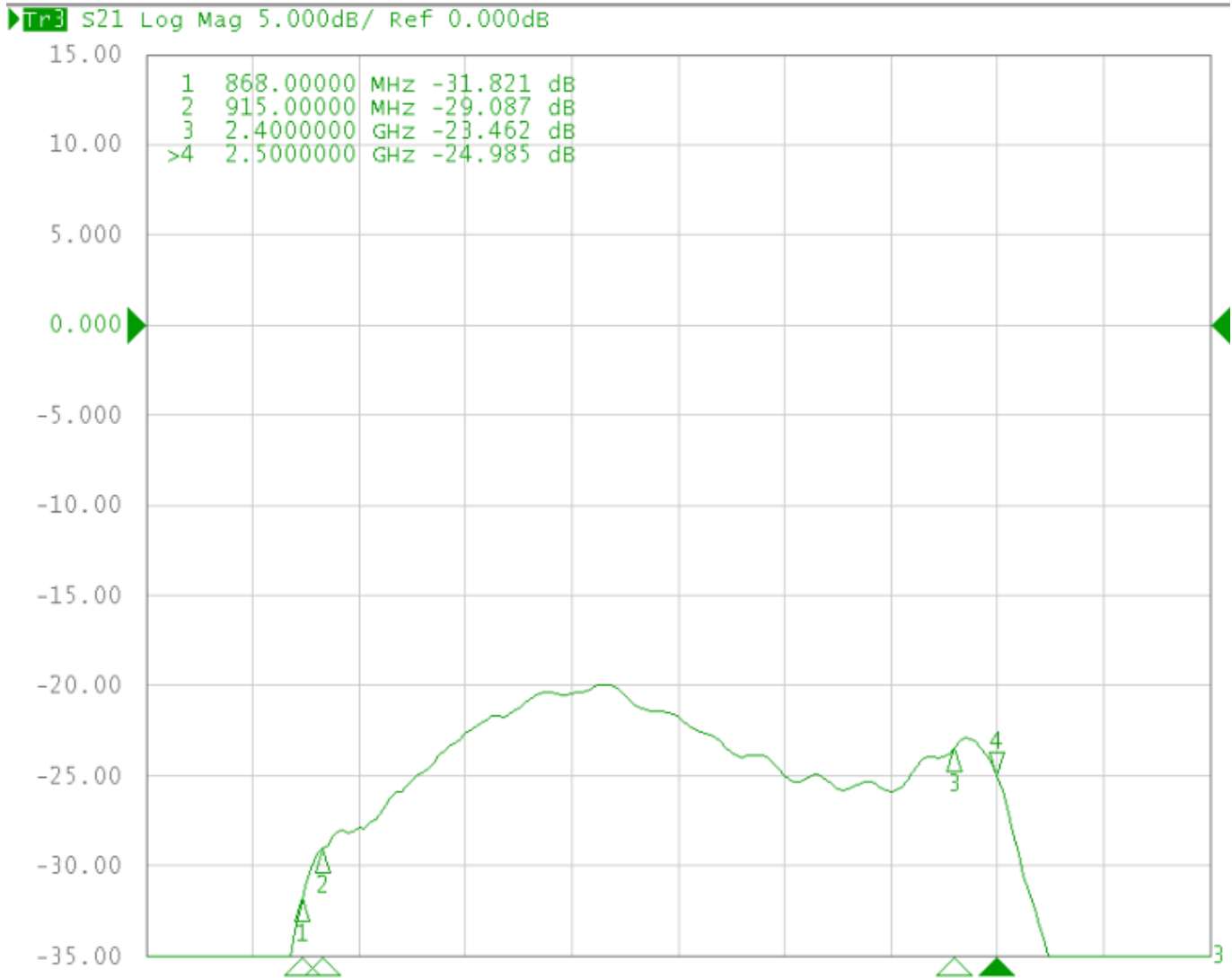
#### ISM2.4G





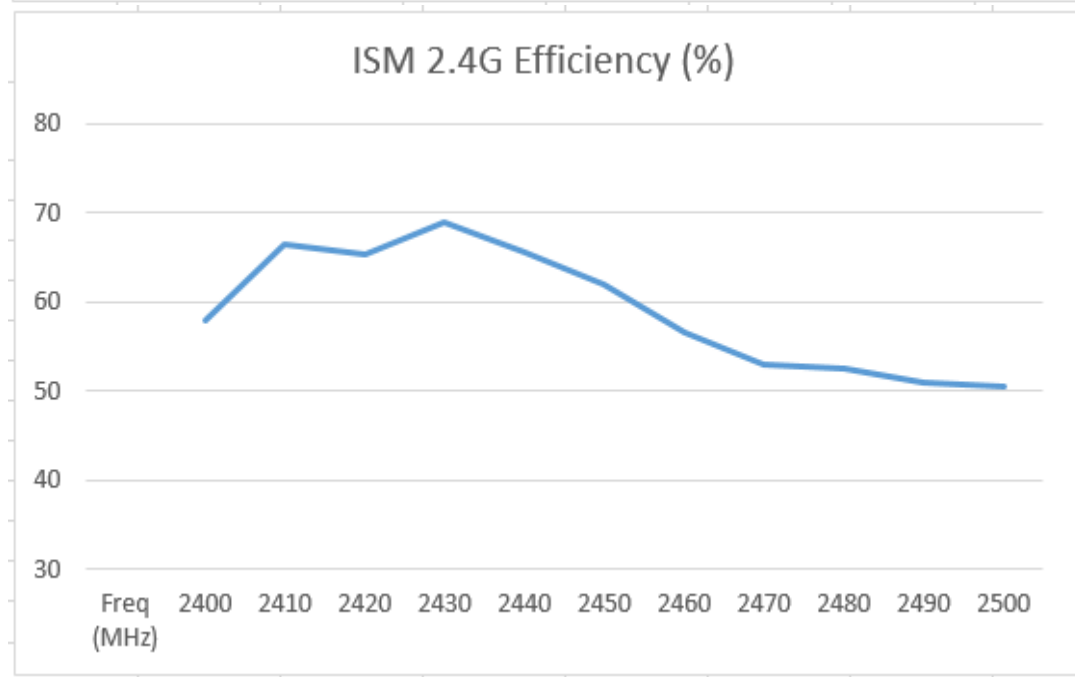
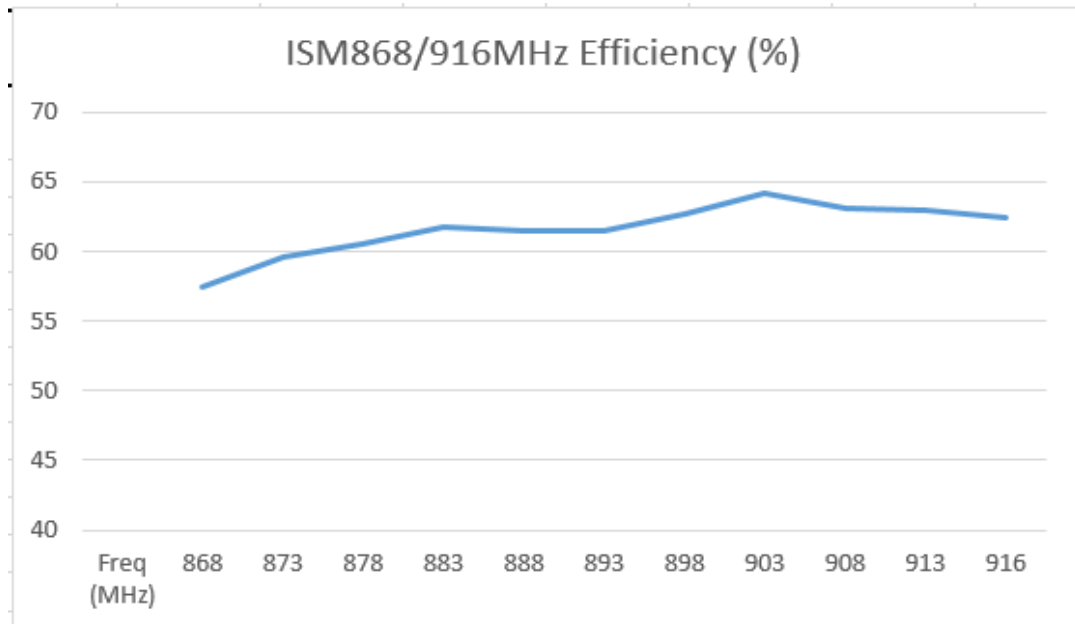
## CHARTS

### Isolation



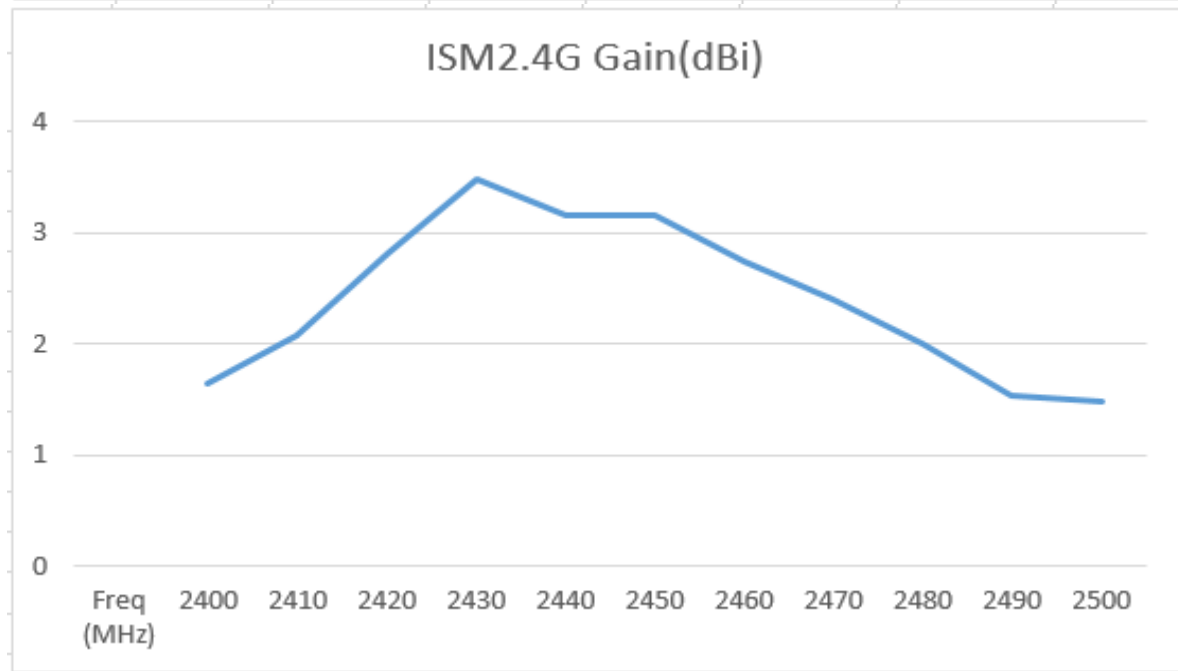
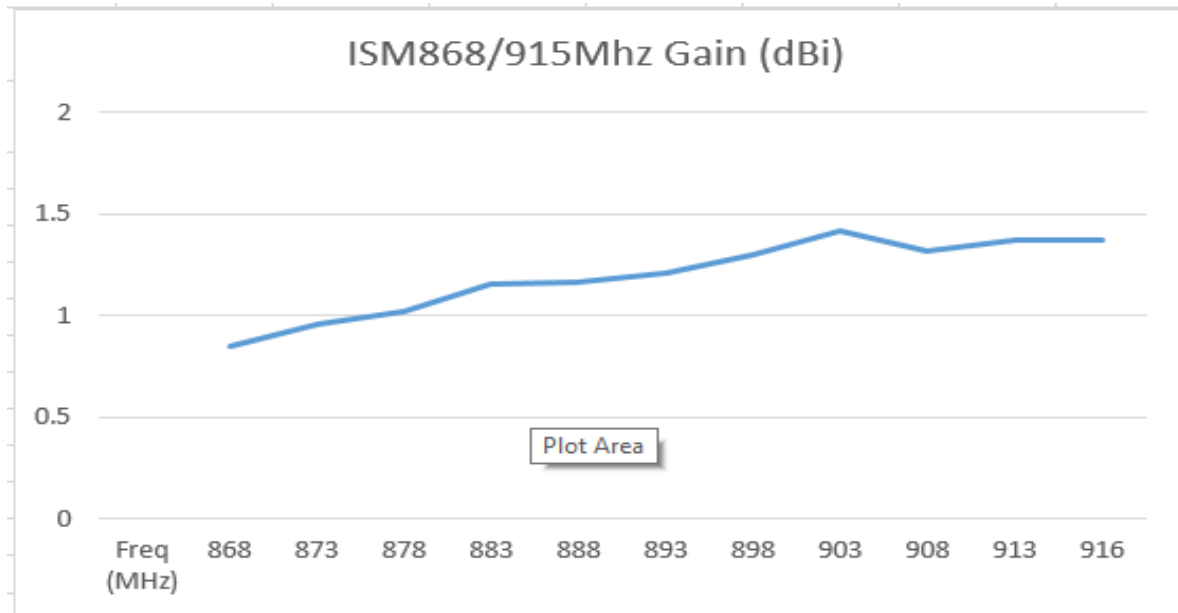
## CHARTS

### Efficiency(%)



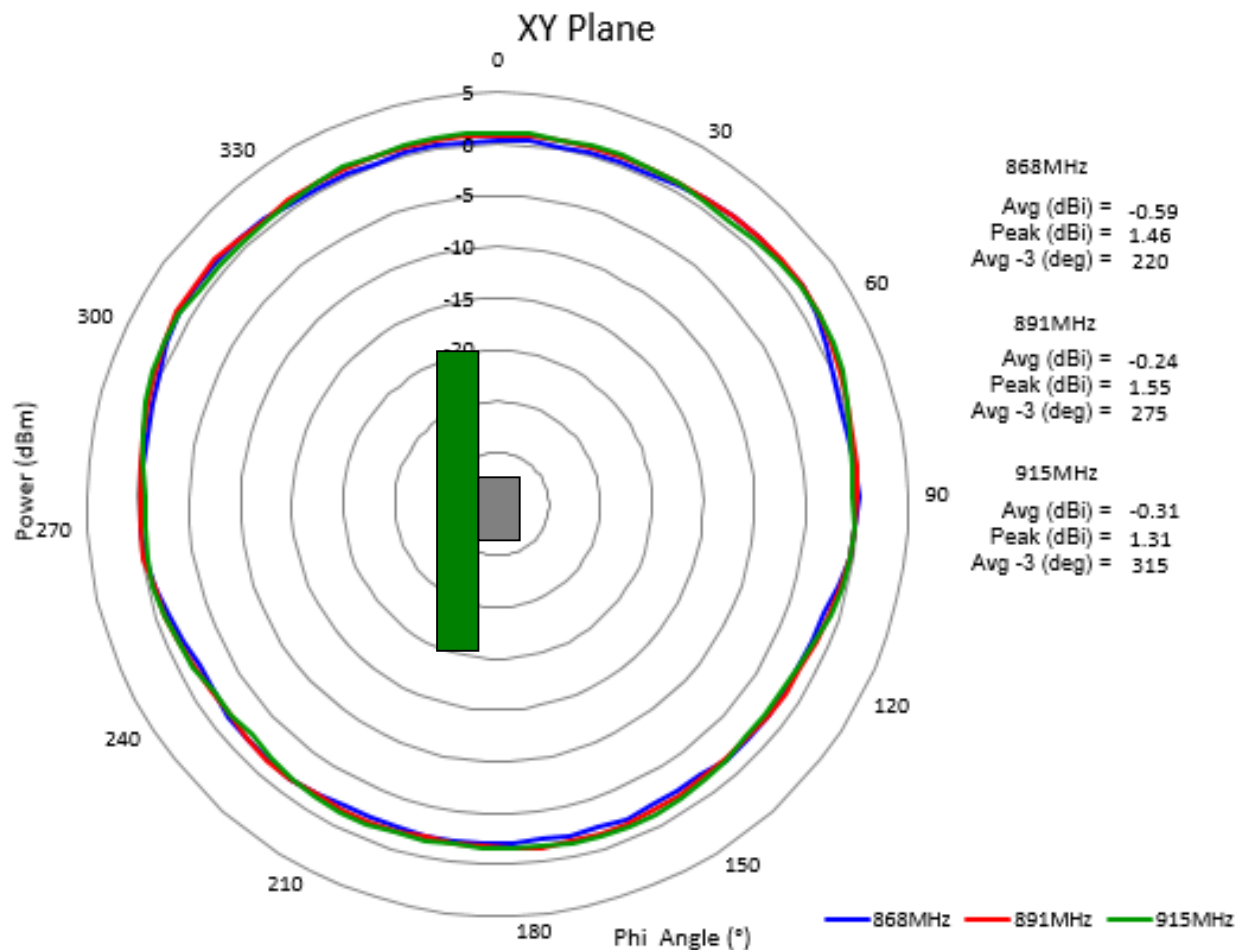
## CHARTS

### Gain ( dBi )



## CHARTS

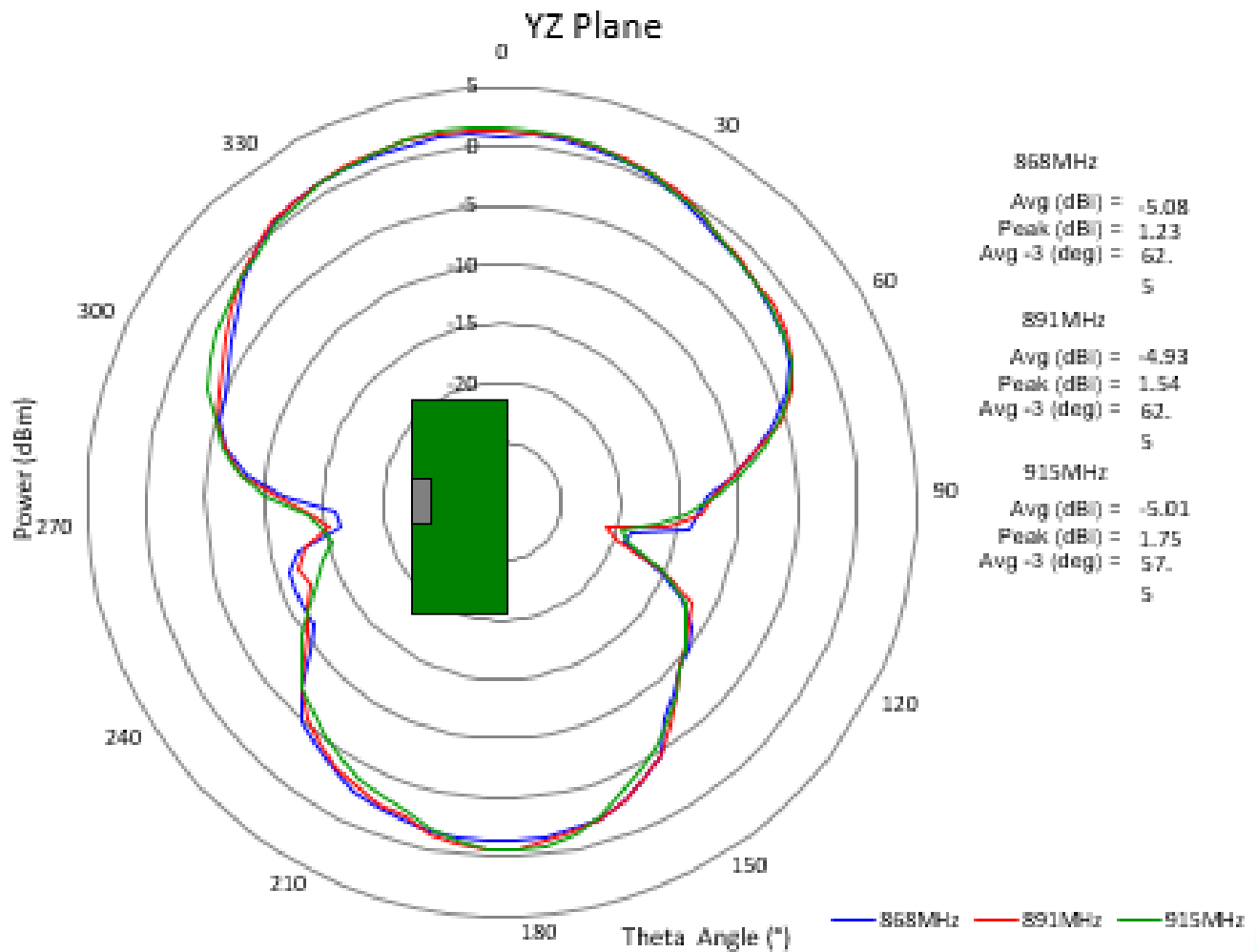
### Typical free space radiation pattern ISM868/915MHz X-Y plane



## CHARTS

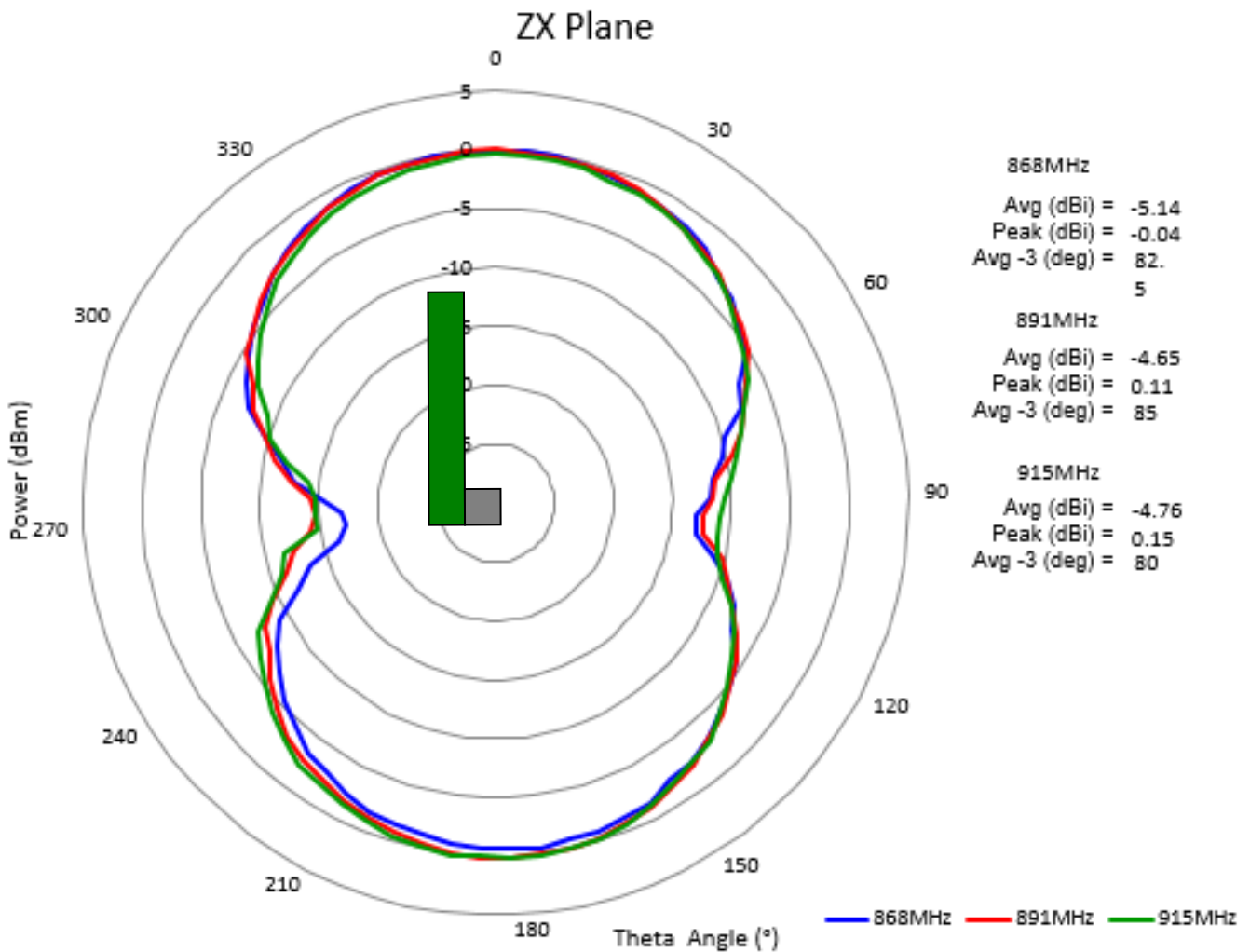
### ISM868/915MHz

### Y-Z plane



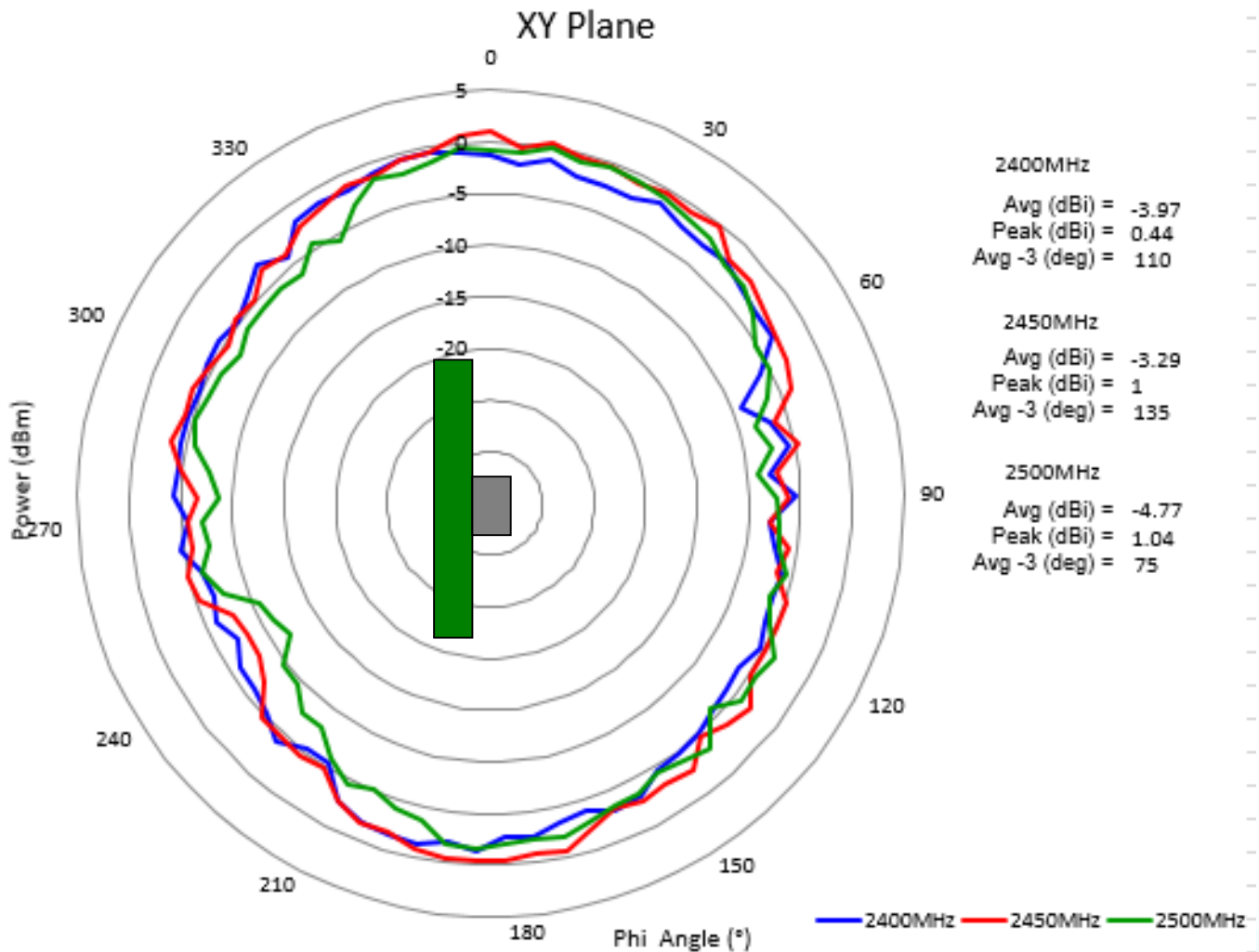
## CHARTS

### ISM868/915MHz X-Z plane



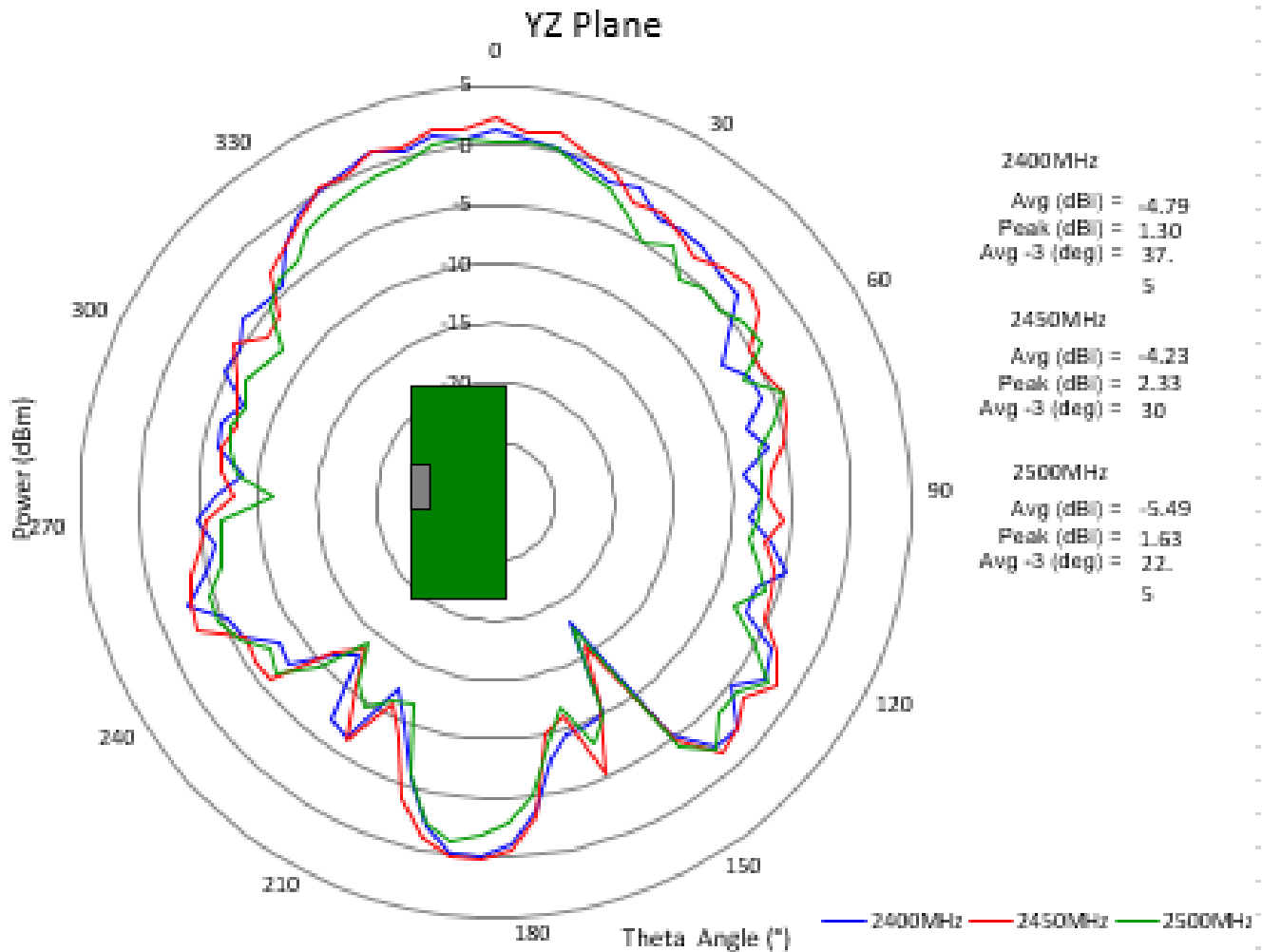
## CHARTS

Typical free space radiation pattern  
ISM2.4GHz  
X-Y plane



## CHARTS

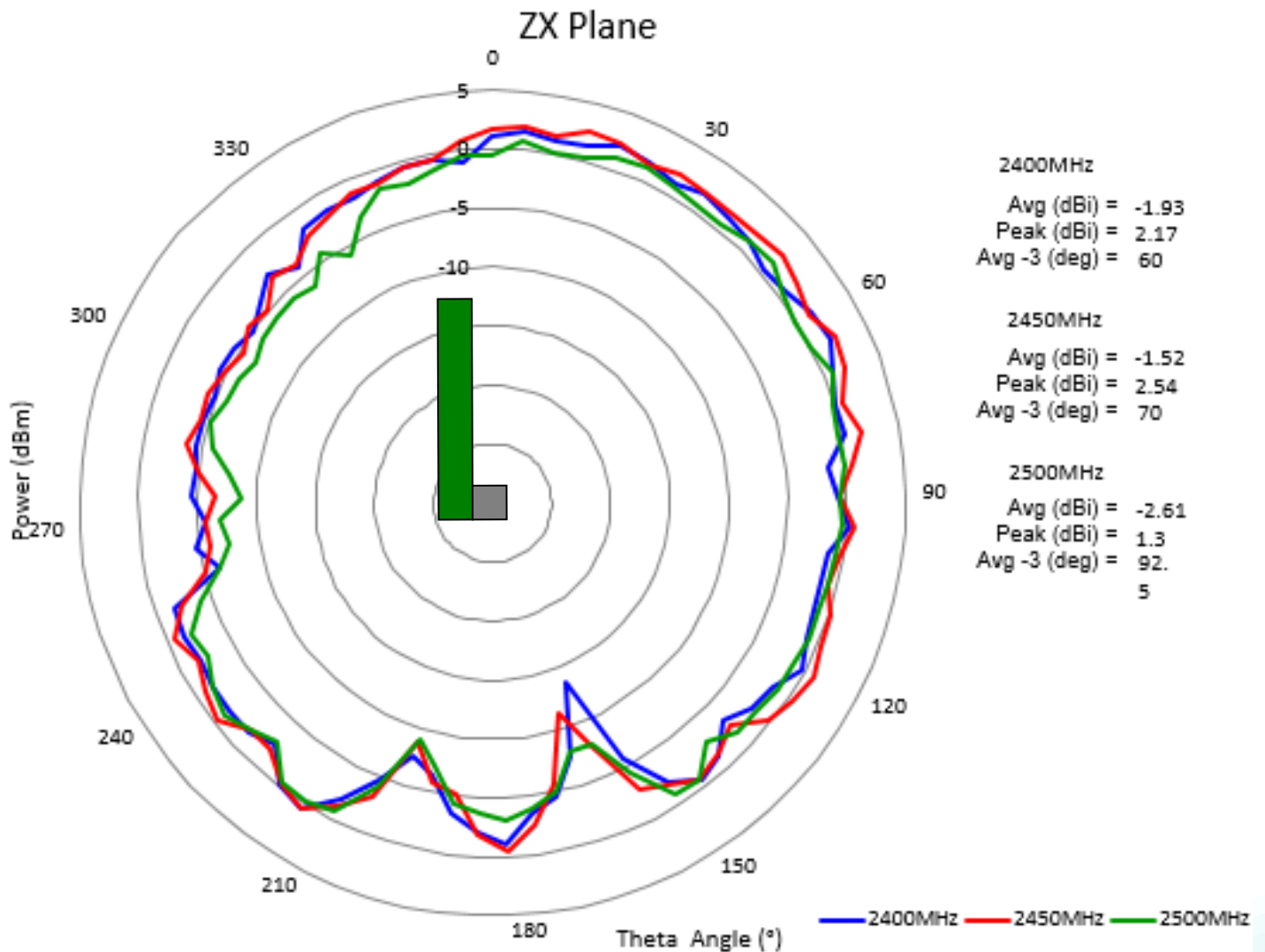
### ISM 2.4GHz Y-Z Plane





## CHARTS

### ISM 2.4GHz X-Z Plane



## PACKAGING

Taping package  
1000PCS/Reel  
3000PCS/Small box  
6000PCS/Carton box

