



# FG6222RTM

## Antenna Test Report

Date : Mar. 17, 2022  
Prepared by : AK Chen

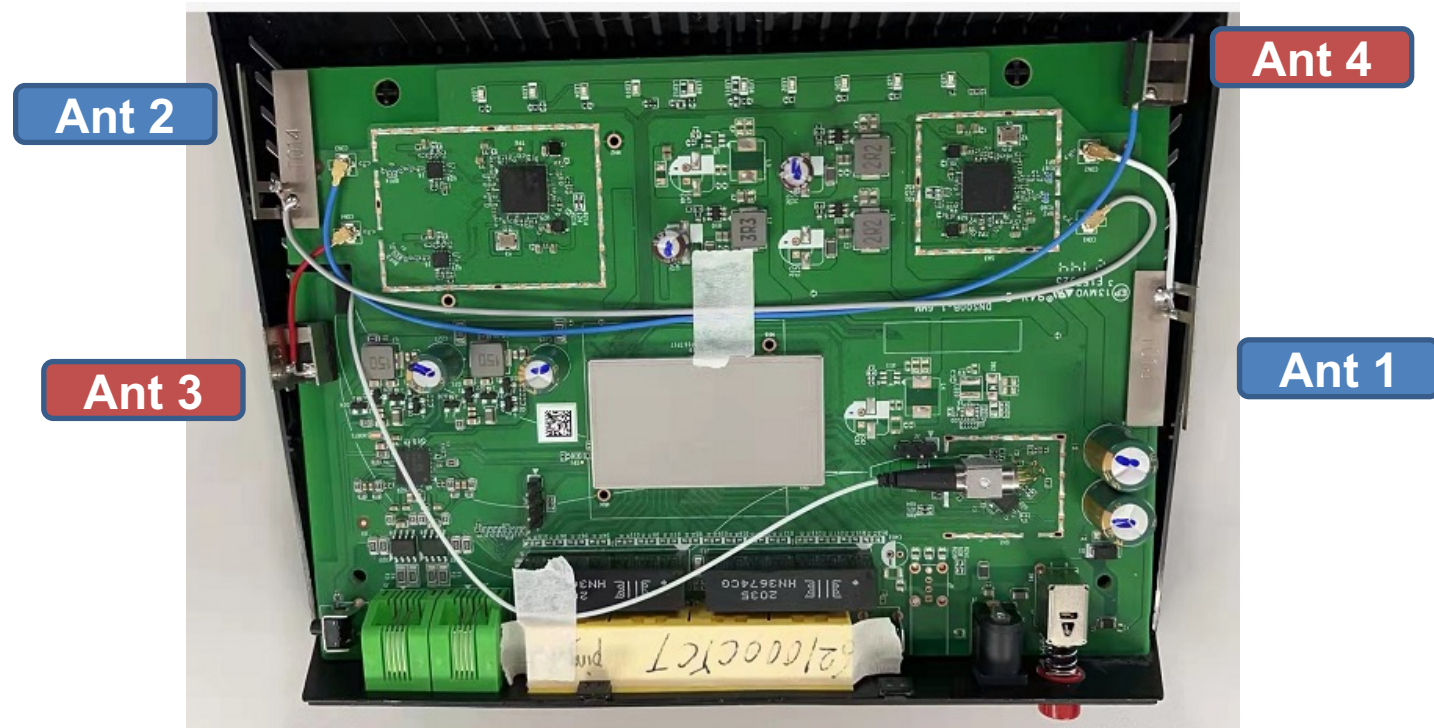


# Outline

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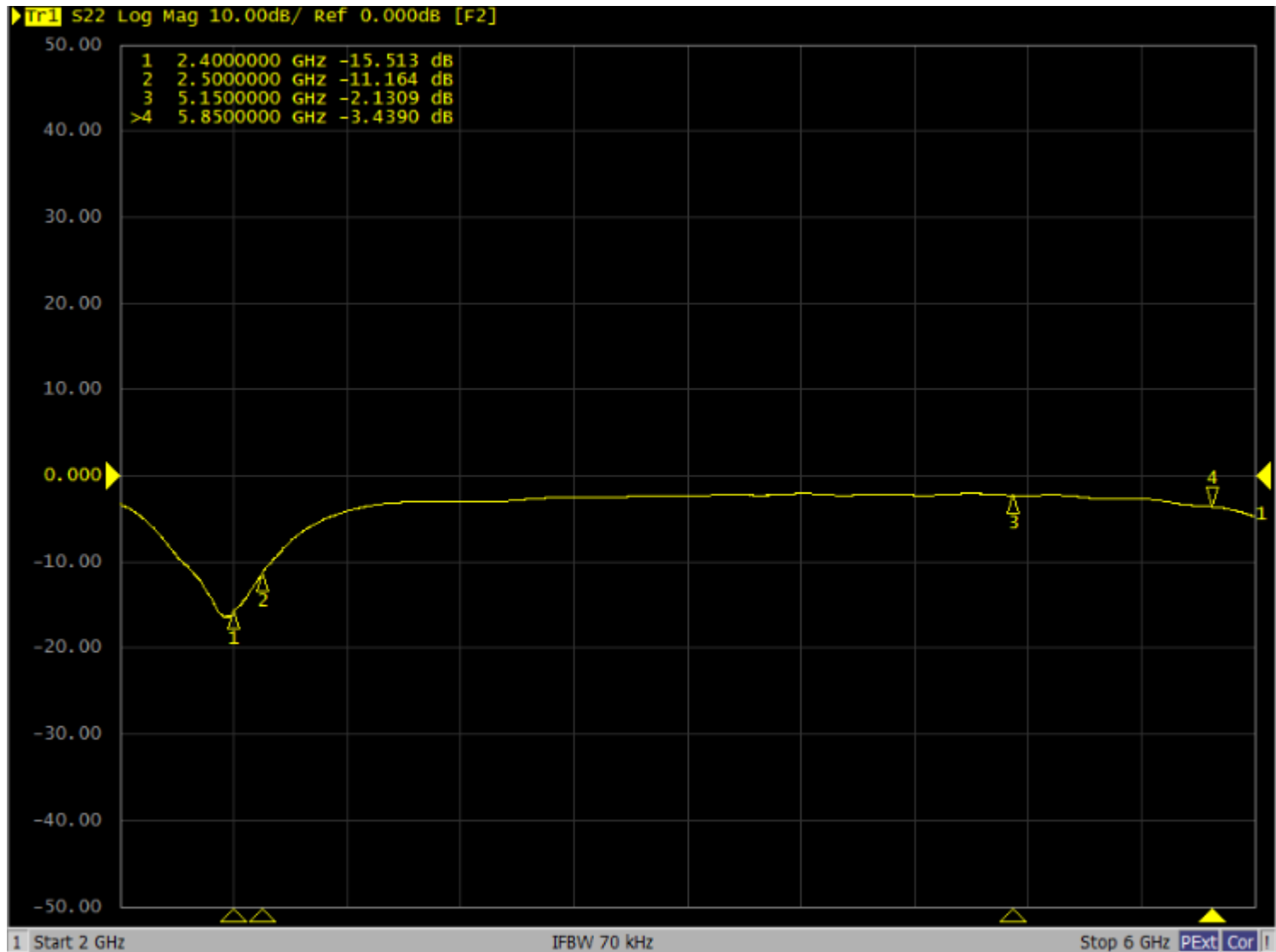
- Antenna Structure & Placement
- Return Loss & Isolation
- Radiation Pattern
- Peak Gain & Efficiency

# Antenna Structure & Placement

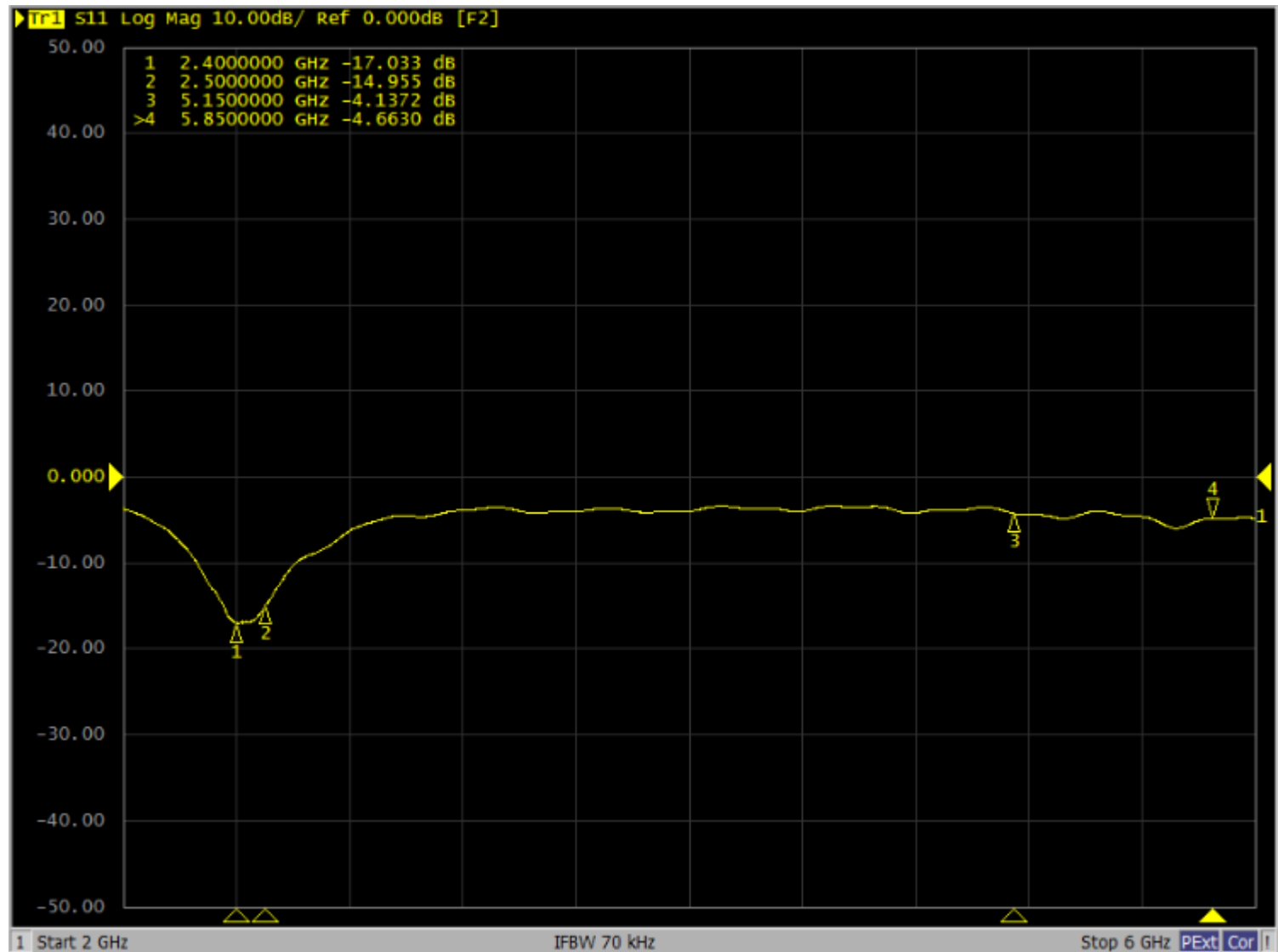


| Ant No.   | Operating Band      | Type | Material | Feeding | Dimension                   |
|-----------|---------------------|------|----------|---------|-----------------------------|
| Ant 1 ~ 2 | 2400 MHz ~ 2500 MHz | PIFA | Metal    | Cable   | 30 x 8 x 13 mm <sup>3</sup> |
| Ant 3 ~ 4 | 5150 MHz ~ 5850 MHz | PIFA | Metal    | Cable   | 13 x 8 x 9 mm <sup>3</sup>  |

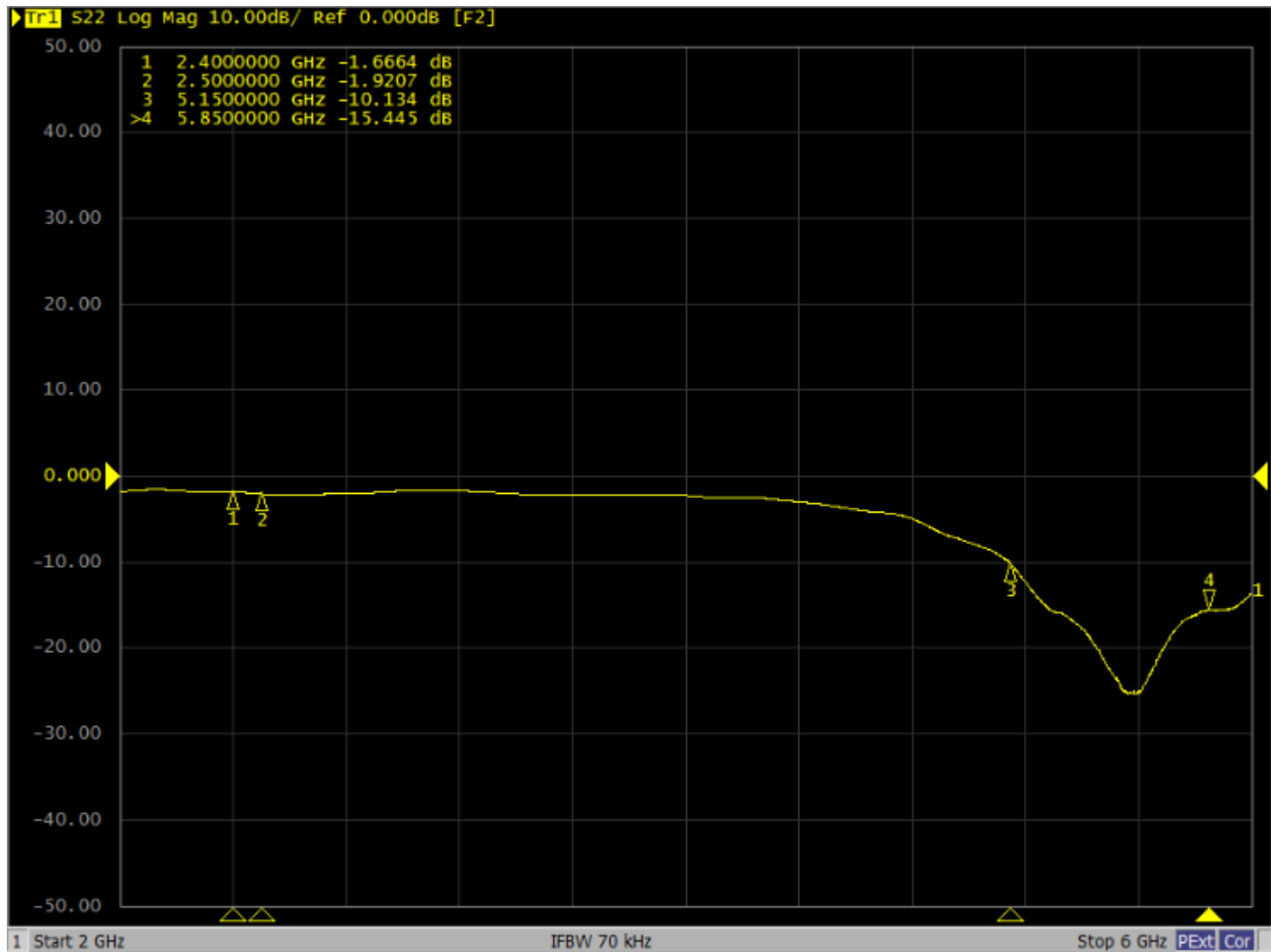
# Return Loss\_Ant 1



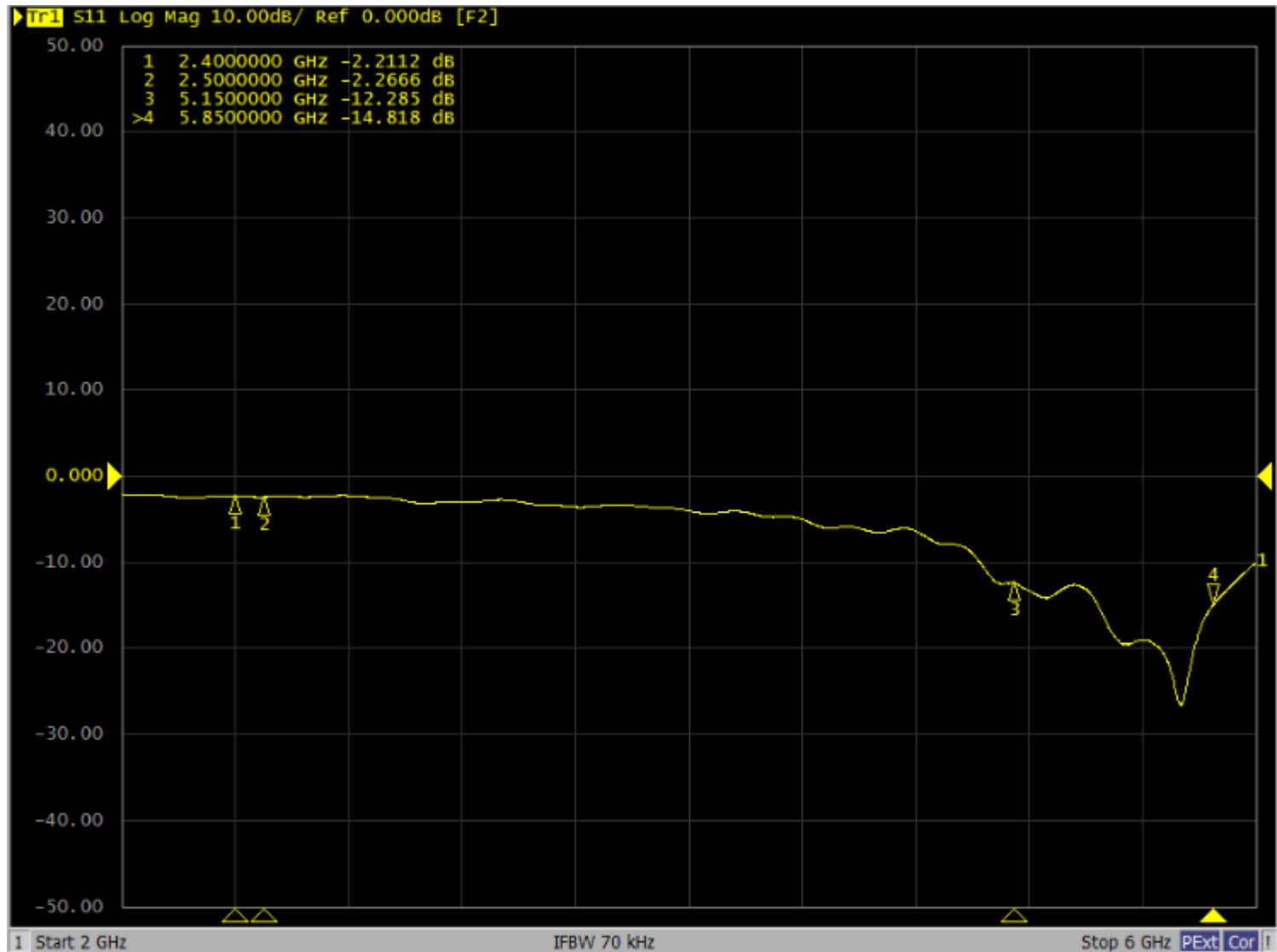
# Return Loss\_Ant 2



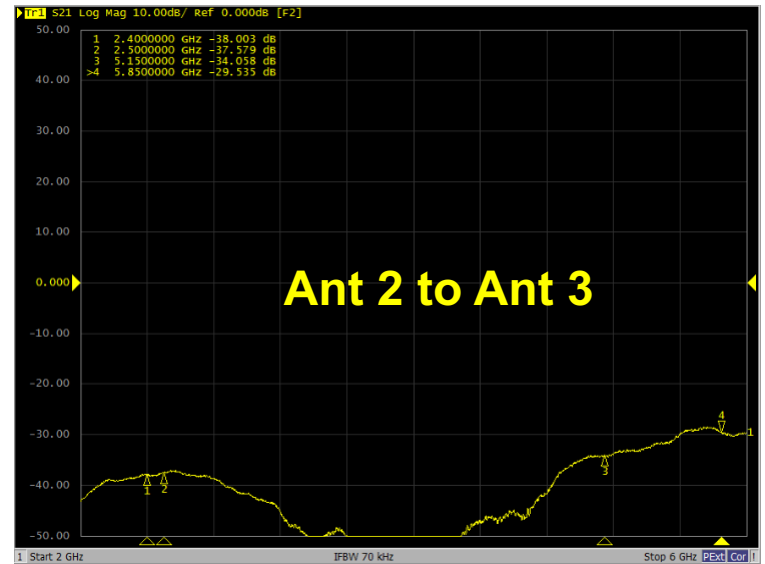
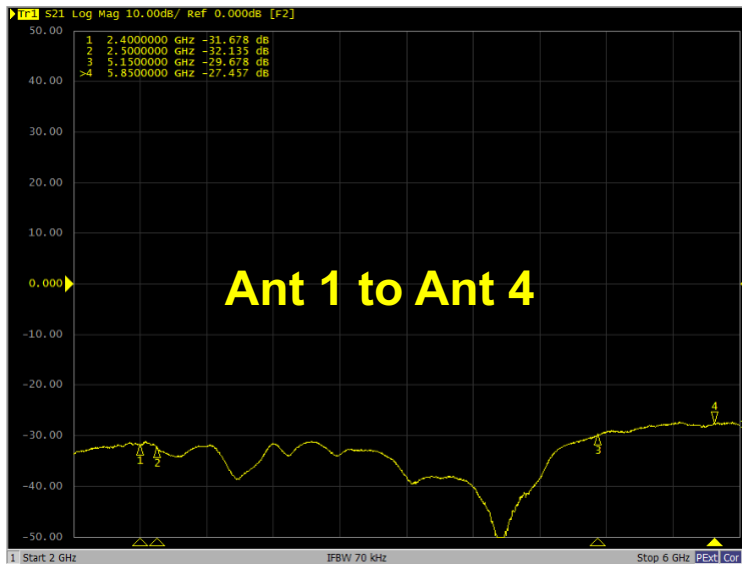
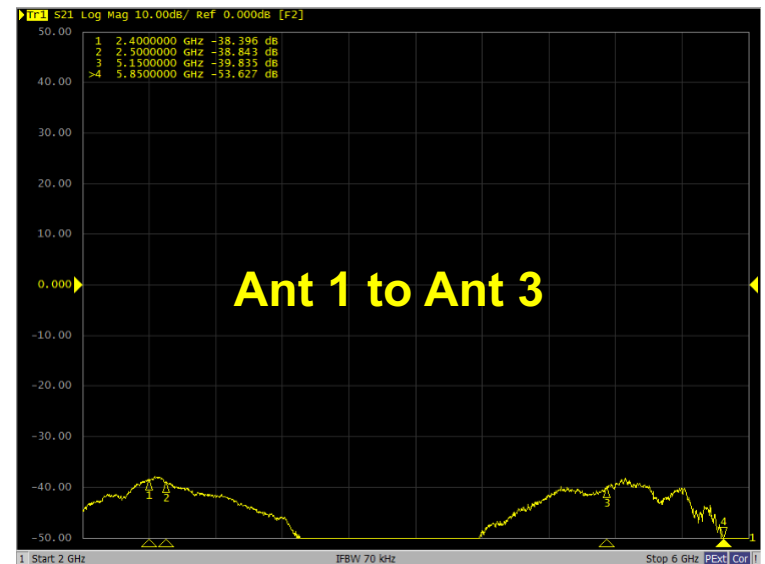
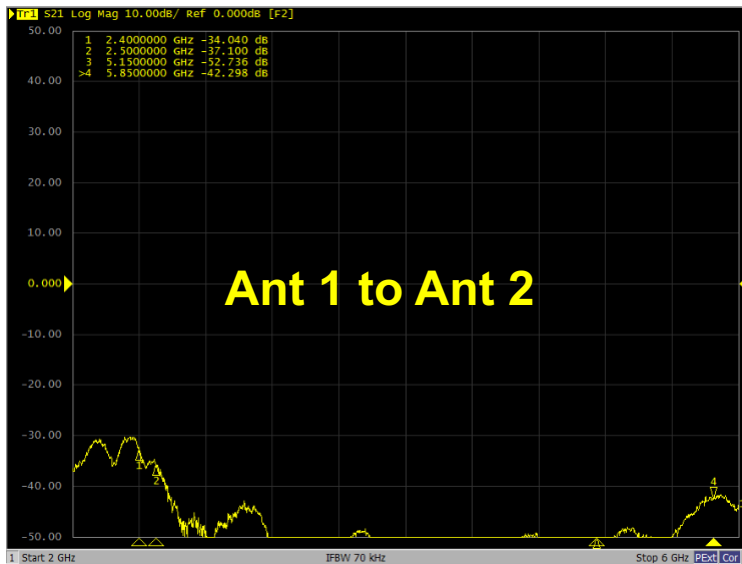
# Return Loss\_Ant 3



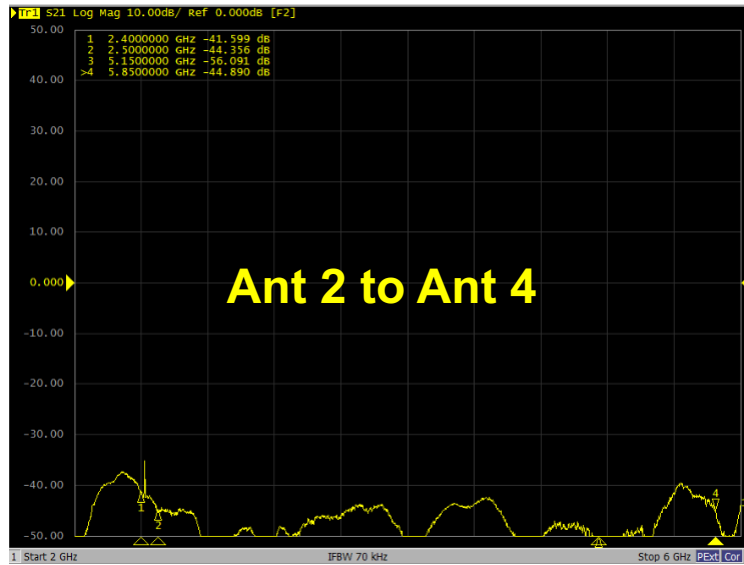
# Return Loss\_Ant 4



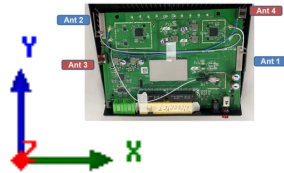
# Isolation



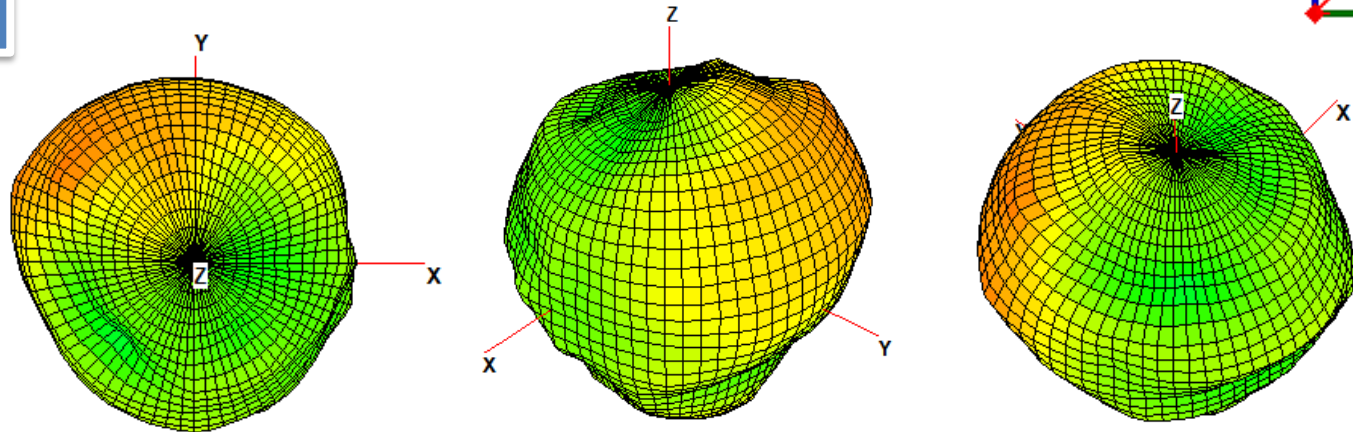
# Isolation



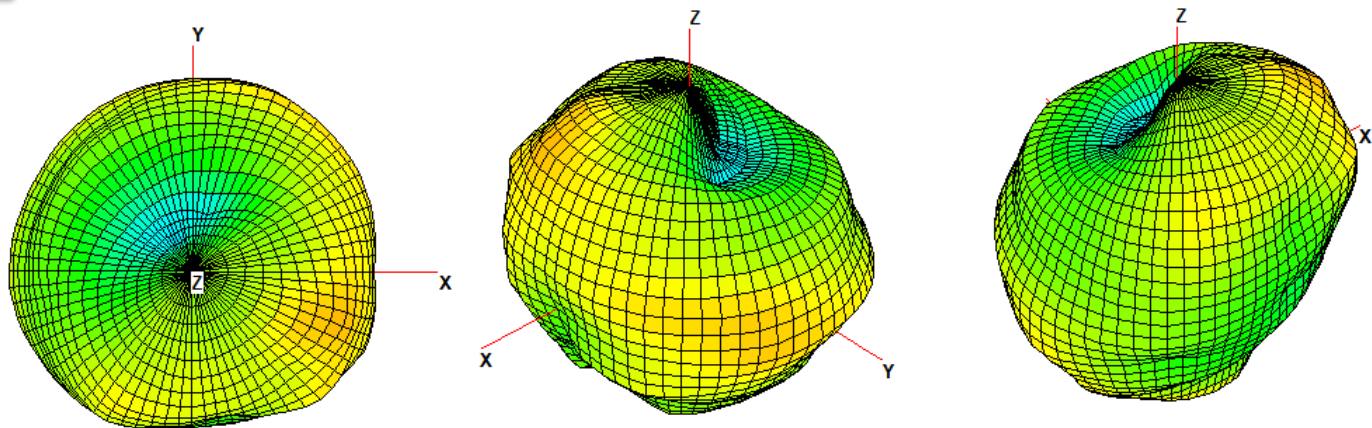
# 3D Radiation Pattern\_WiFi 2.4G



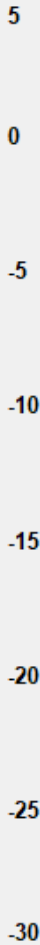
Ant 1



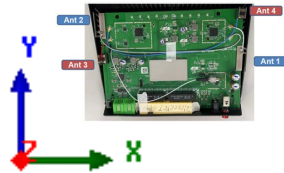
Ant 2



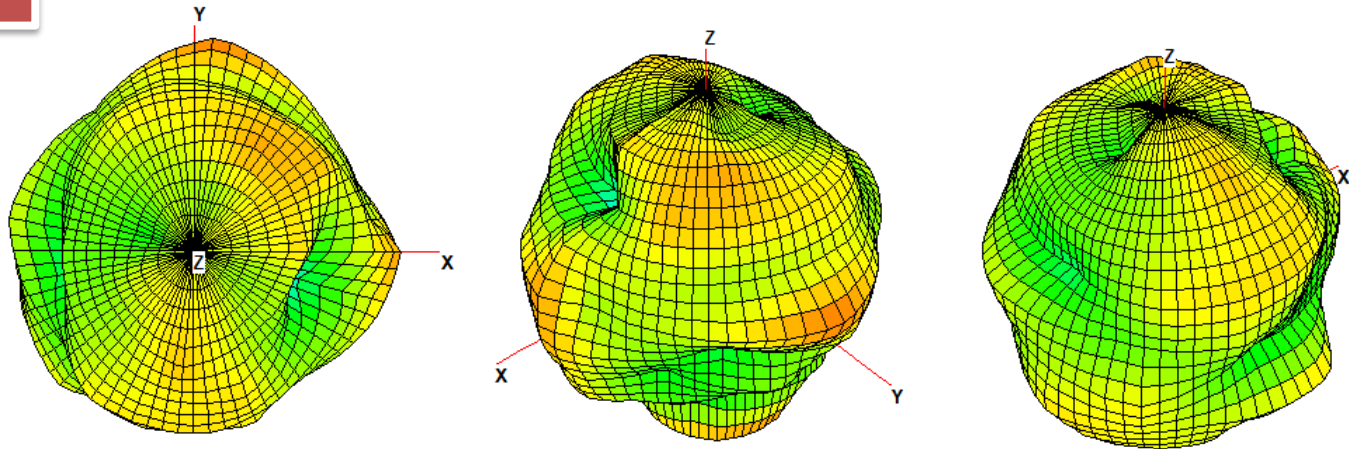
Response (dB)



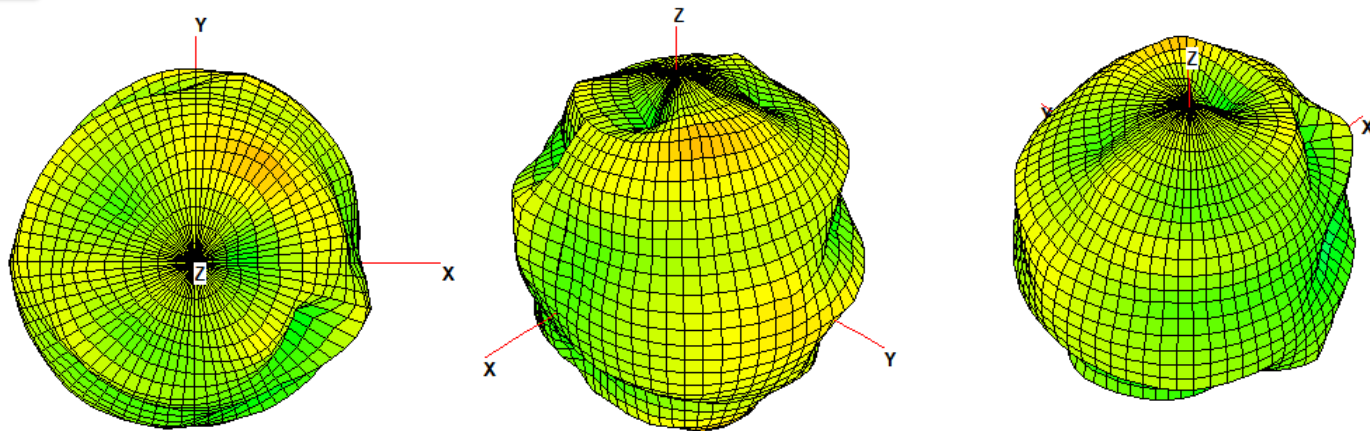
# 3D Radiation Pattern\_WiFi 5G



Ant 3

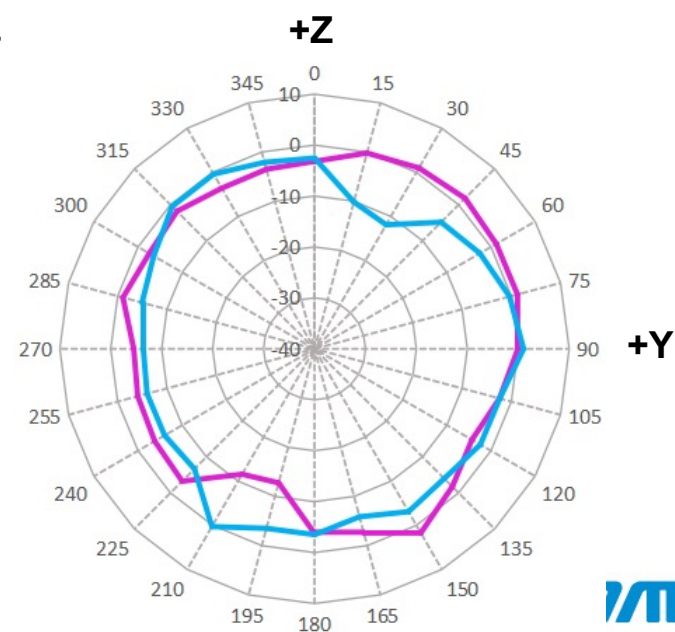
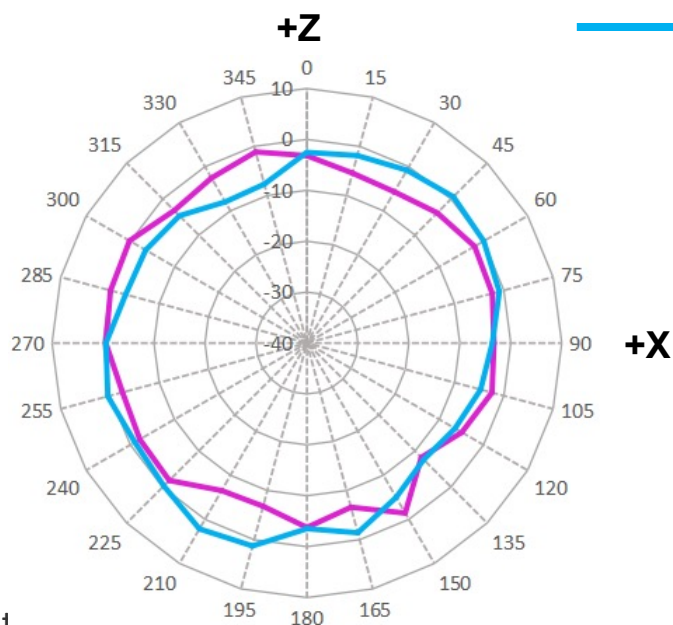
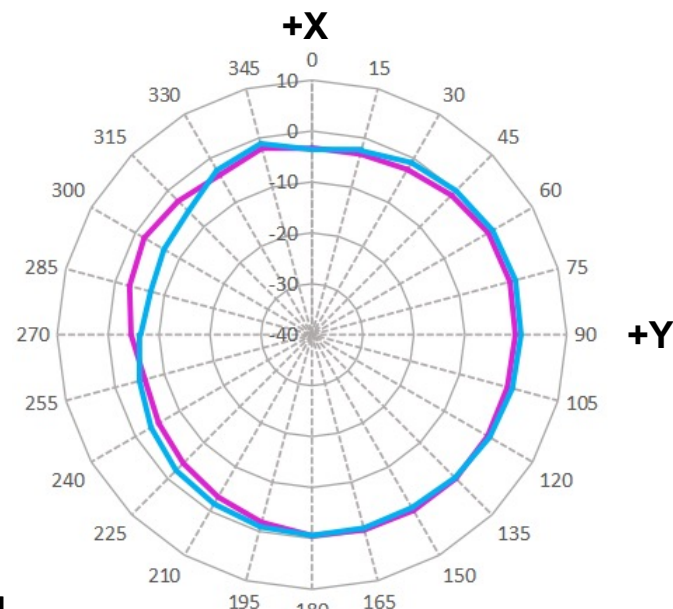
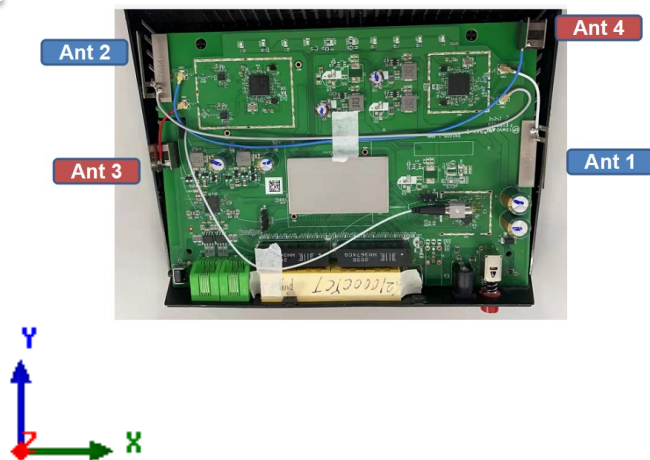


Ant 4



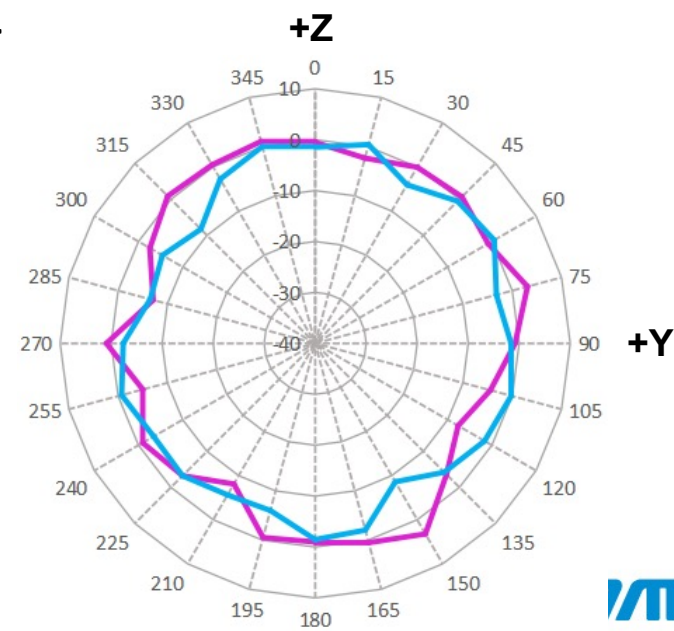
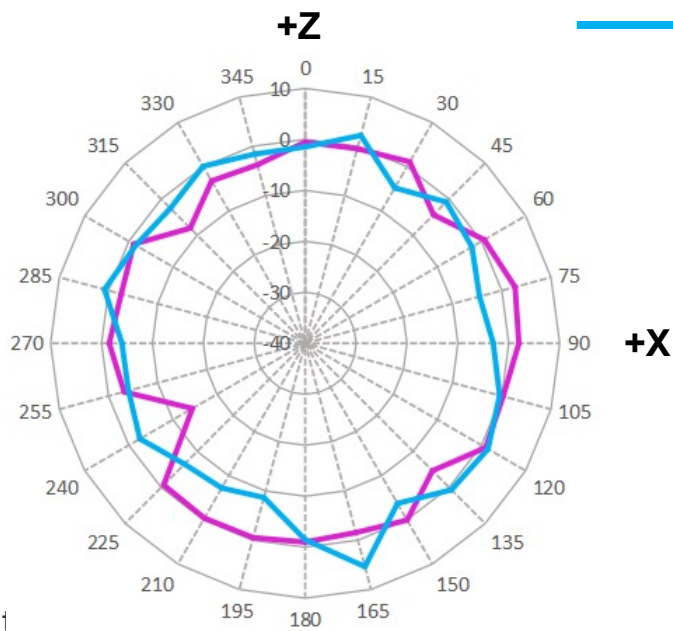
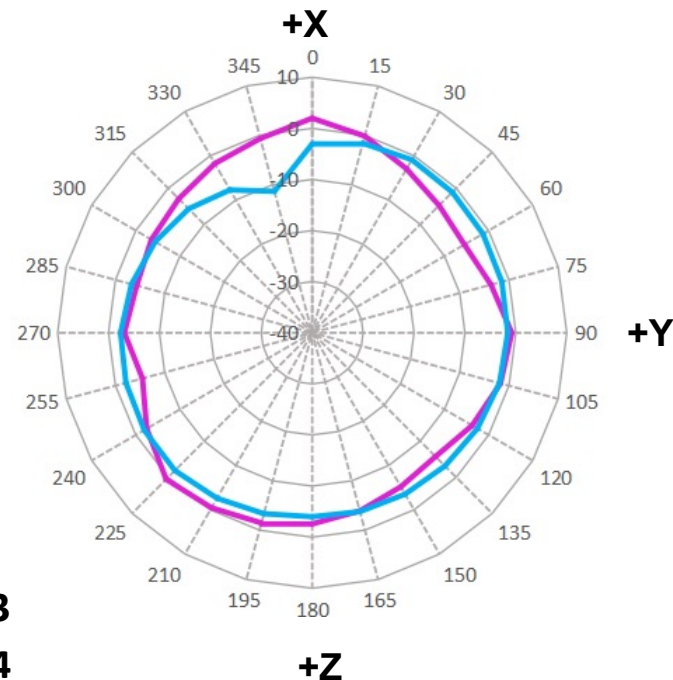
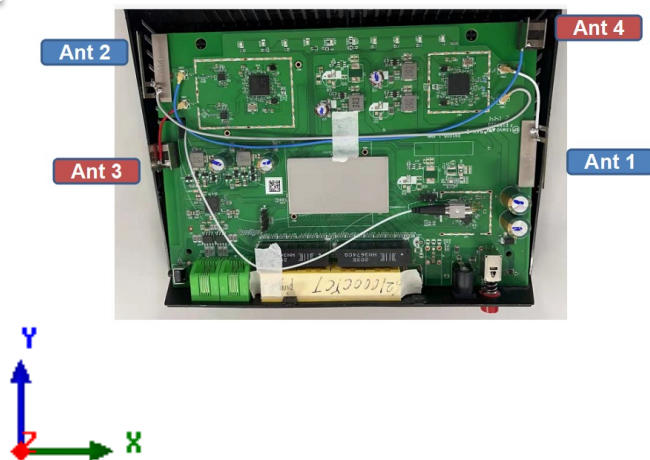
# 2D Radiation Pattern

2450 MHz



# 2D Radiation Pattern

5500 MHz



# Peak Gain & Efficiency

| Ant 1           |                |                 |
|-----------------|----------------|-----------------|
| Frequency (MHz) | Efficiency (%) | Peak Gain (dBi) |
| 2400            | 58.9           | 2.3             |
| 2450            | 59.4           | 2.1             |
| 2500            | 62.6           | 2.6             |

| Ant 2           |                |                 |
|-----------------|----------------|-----------------|
| Frequency (MHz) | Efficiency (%) | Peak Gain (dBi) |
| 2400            | 53.7           | 2.2             |
| 2450            | 57.5           | 2.7             |
| 2500            | 54.6           | 2.4             |

| Ant 3           |                |                 |
|-----------------|----------------|-----------------|
| Frequency (MHz) | Efficiency (%) | Peak Gain (dBi) |
| 5150            | 64.3           | 3.0             |
| 5500            | 61.0           | 3.5             |
| 5850            | 60.7           | 3.3             |

| Ant 4           |                |                 |
|-----------------|----------------|-----------------|
| Frequency (MHz) | Efficiency (%) | Peak Gain (dBi) |
| 5150            | 56.6           | 3.6             |
| 5500            | 52.8           | 3.9             |
| 5850            | 50.4           | 3.0             |

The logo for SERCOMM, featuring the word "SERCOMM" in a bold, blue, sans-serif font. The letters are slightly stylized, with the 'S' and 'M' having a more dynamic, angular appearance. The logo is centered within a large, faint, light blue circular graphic that has a subtle gradient and a fine grid pattern.

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