

# ***Cisco CM66 Antenna Test Report in ETS Chamber***

2021/10/28

Provided by Chikang Su

*Smarter Solutions for a Smarter Future*

A blue silhouette of a city skyline is positioned along a wavy blue line that curves across the bottom of the page. The skyline includes various figures and objects: a person on the left holding a mobile phone with signal waves, a car with a large antenna on its roof, a person in the center walking, a person on the right sitting at a desk with a computer monitor, and another person on the far right sitting on the ground with a laptop and signal waves. The background is a light blue gradient with a sunburst effect in the top right corner.

# Antenna Type and Placement

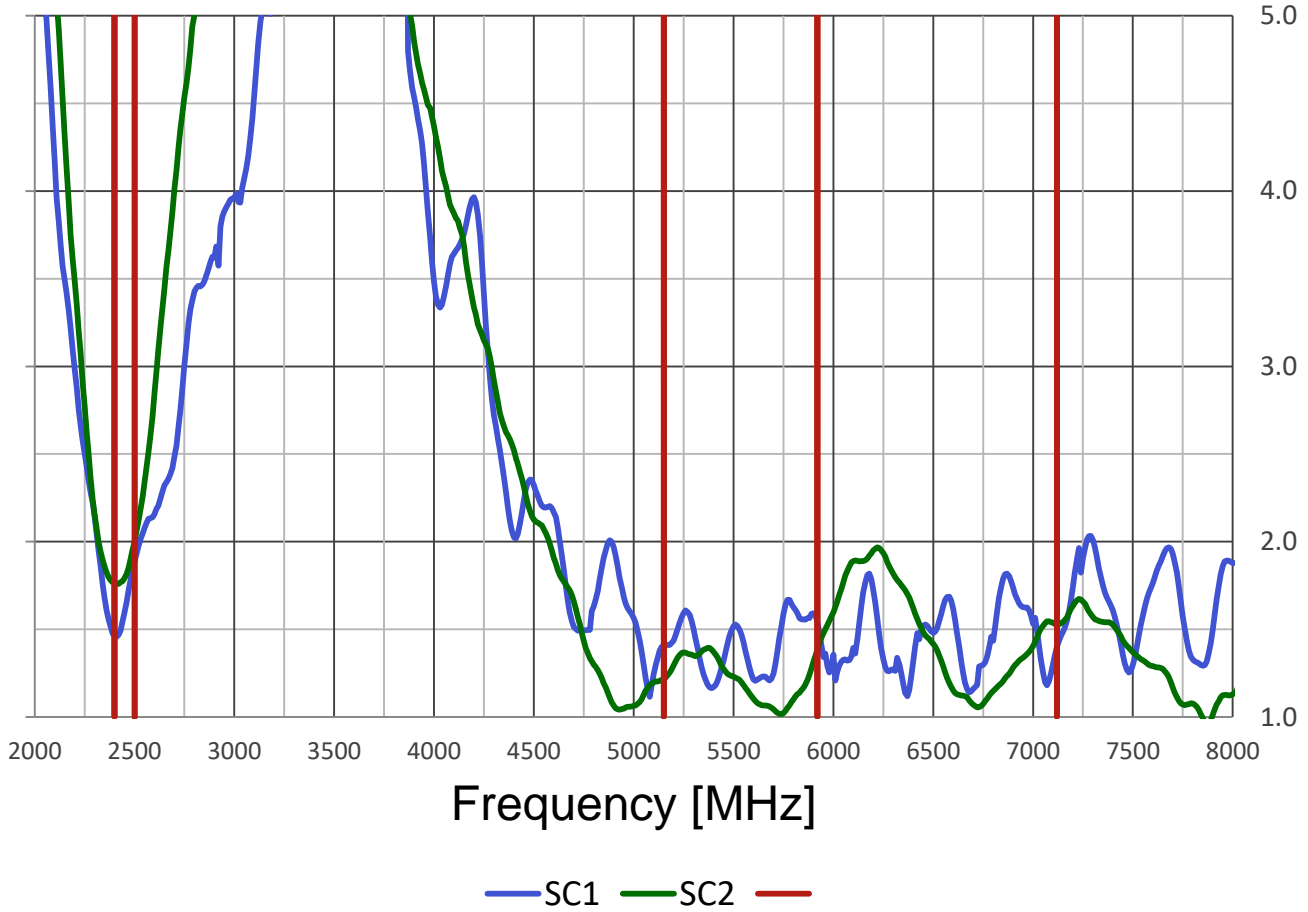
Frequency combination		ANT Type	Polarization
Scanning (2/5/6G)	2.4~2.5GHz 5.15~7.125GHz	PIFA (30 x 20 x 8.0 mm)	Mixed
BLE	2.4GHz	PIFA (30 x 14 x 8.6 mm)	Mixed

# Scanning

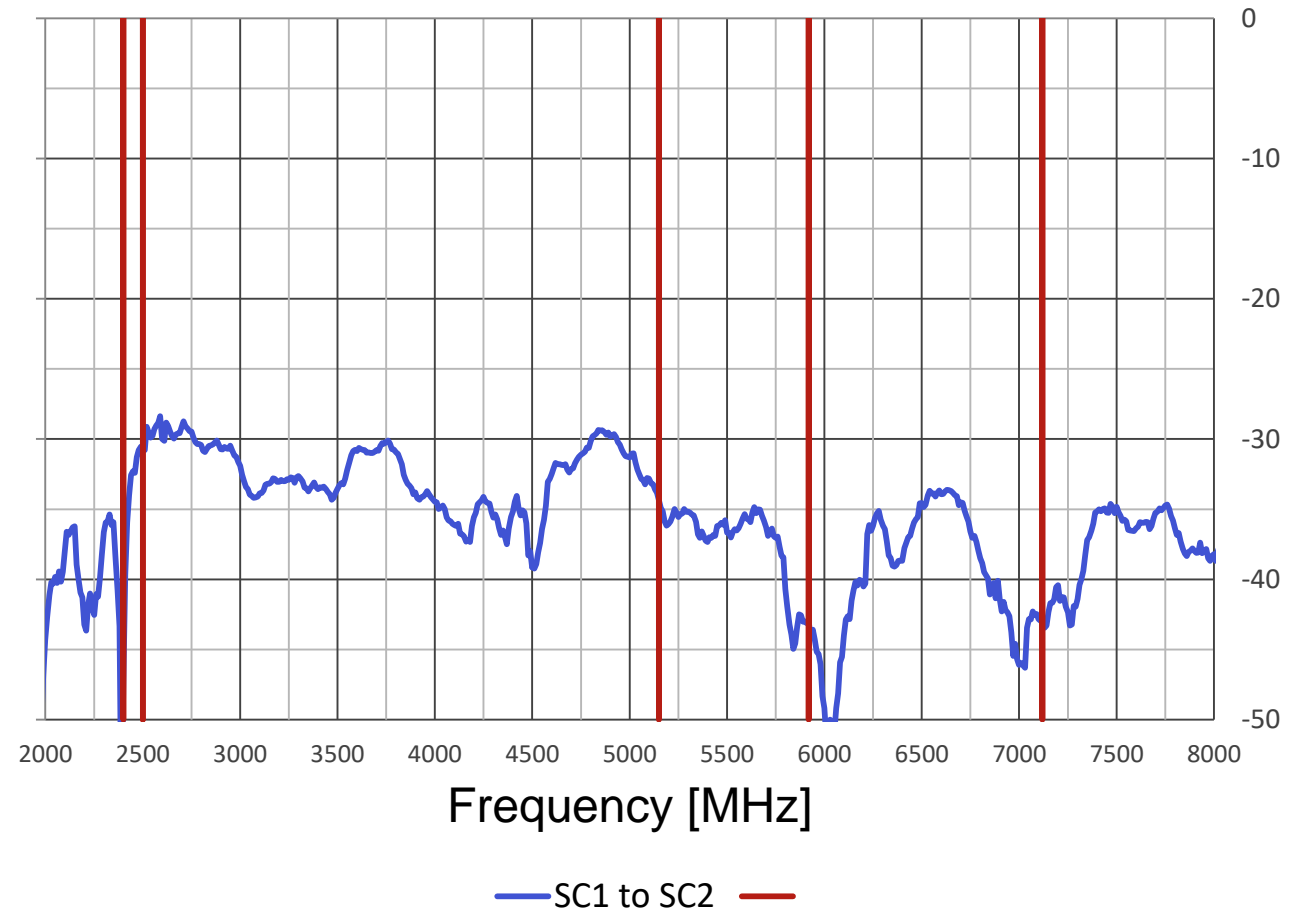
- **Maximum VSWR**
  - 2.0:1 on 2.4GHz / 1.6:1 on 5GHz / 2.0:1 on 6GHz
- **Minimum Isolation**
  - 30.8dB on 2.4GHz / 34.8dB on 5\_6GHz/ 36.8dB on 6GHz
- **Average Efficiency**
  - ~62% on 2.4GHz / ~58% on 5GHz / ~58% on 6GHz
- **Peak Gain**
  - 3.3dBi on 2.4GHz / 4.0dBi on 5GHz / 5.3dBi on 6GHz



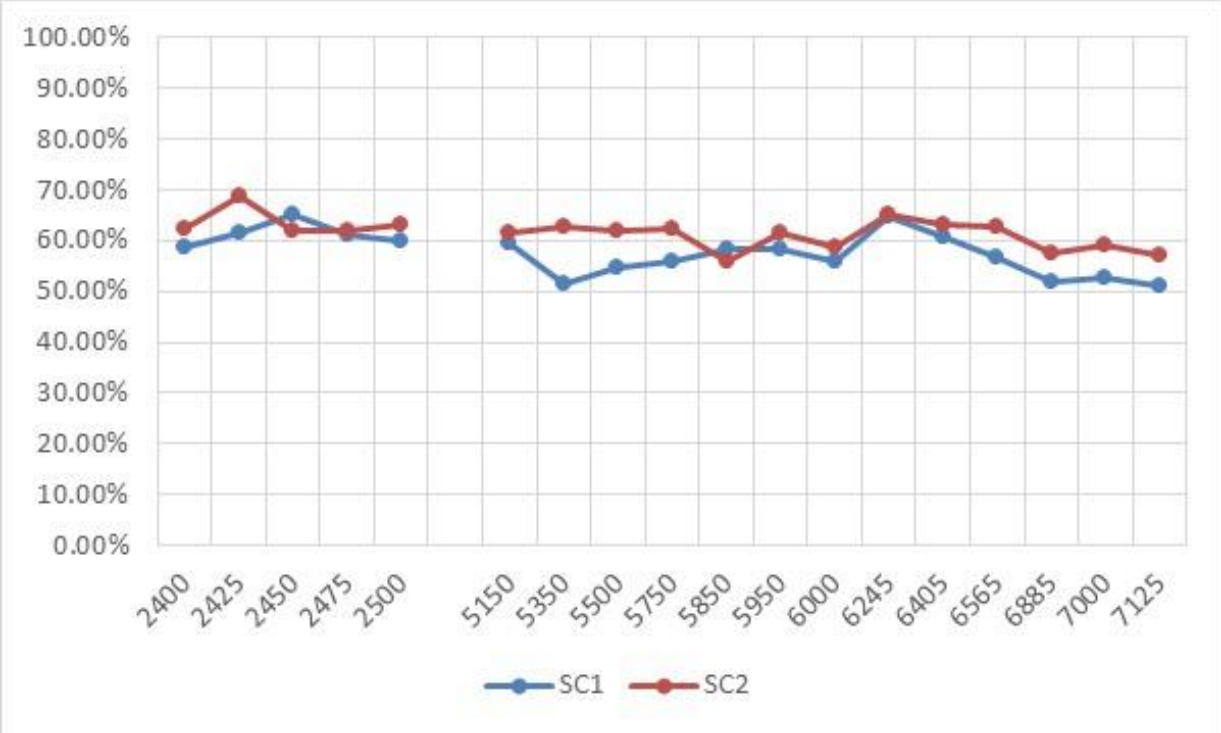
# VSWR Scanning



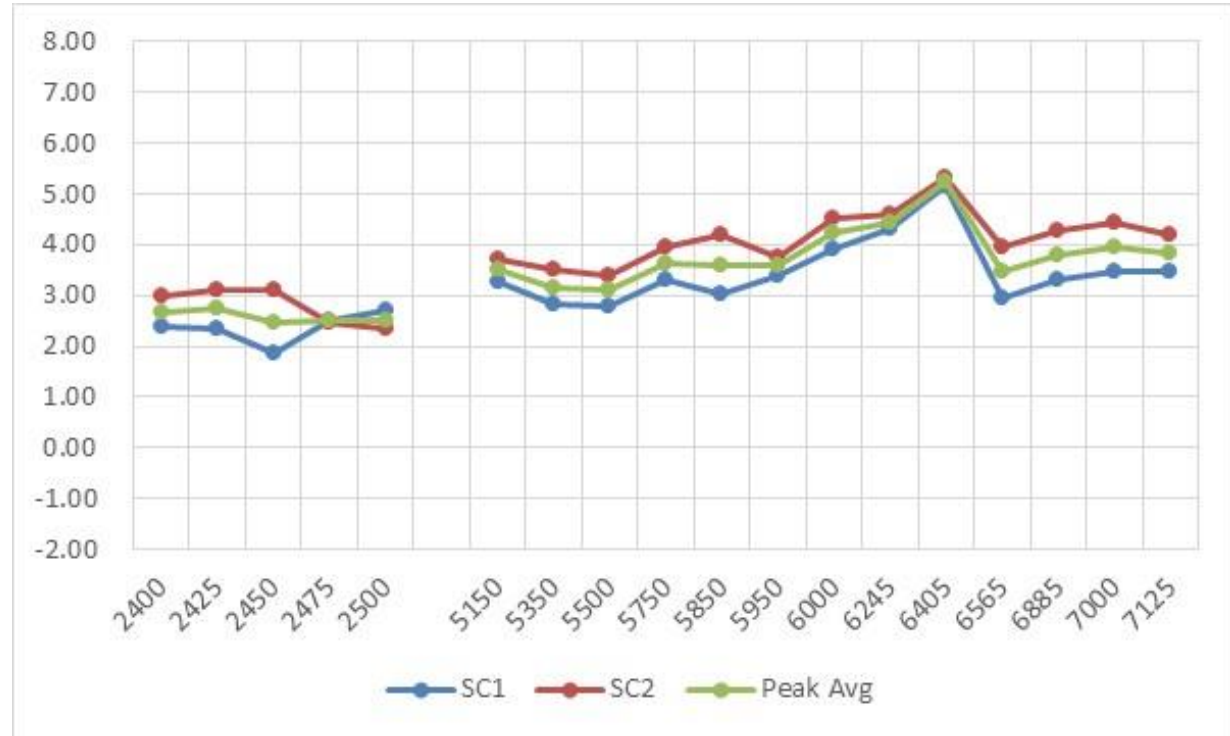
# Isolation Scanning



# Efficiency Scanning

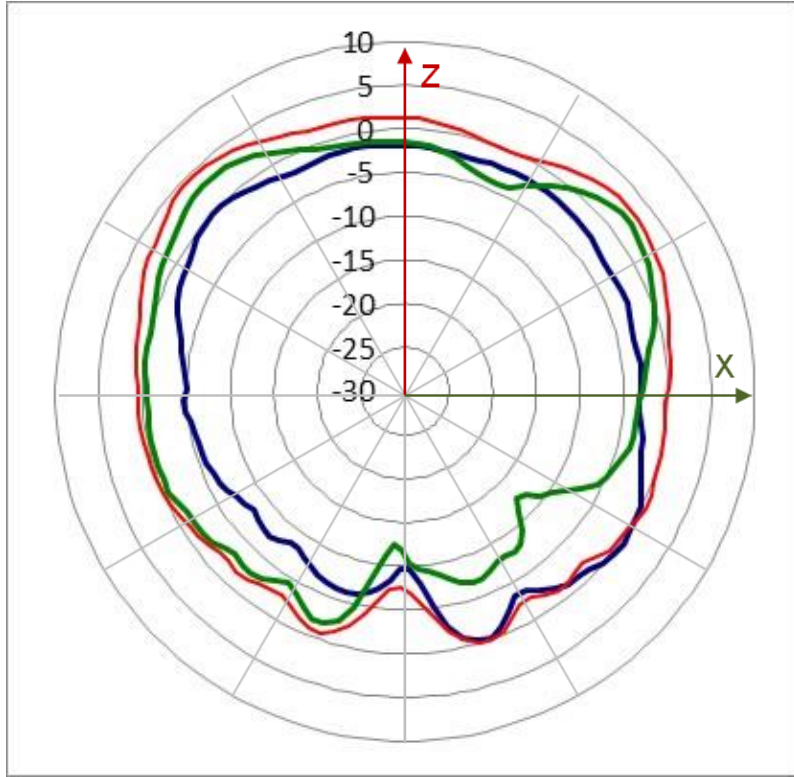


# Peak Gain Scanning

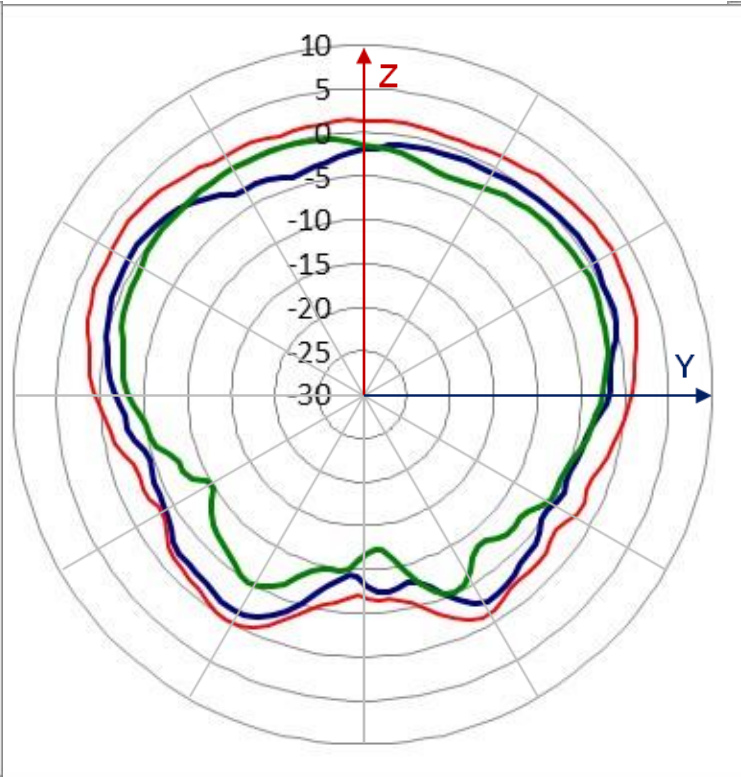


# Realized Gain Pattern Scanning @2450MHz

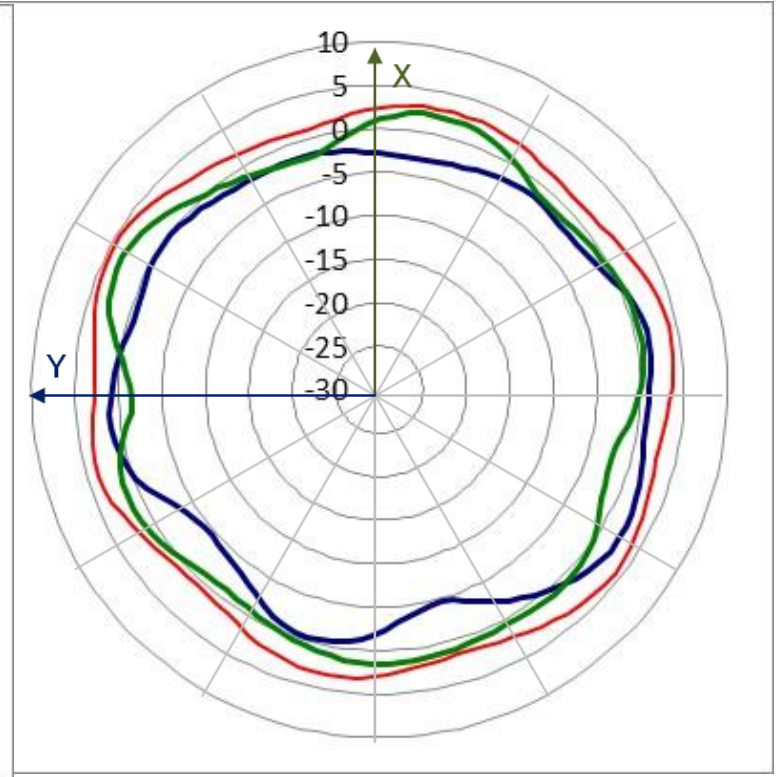
$\phi = 0$



$\phi = 90$



$\theta = 60$



— SC1 — SC2 — Composite

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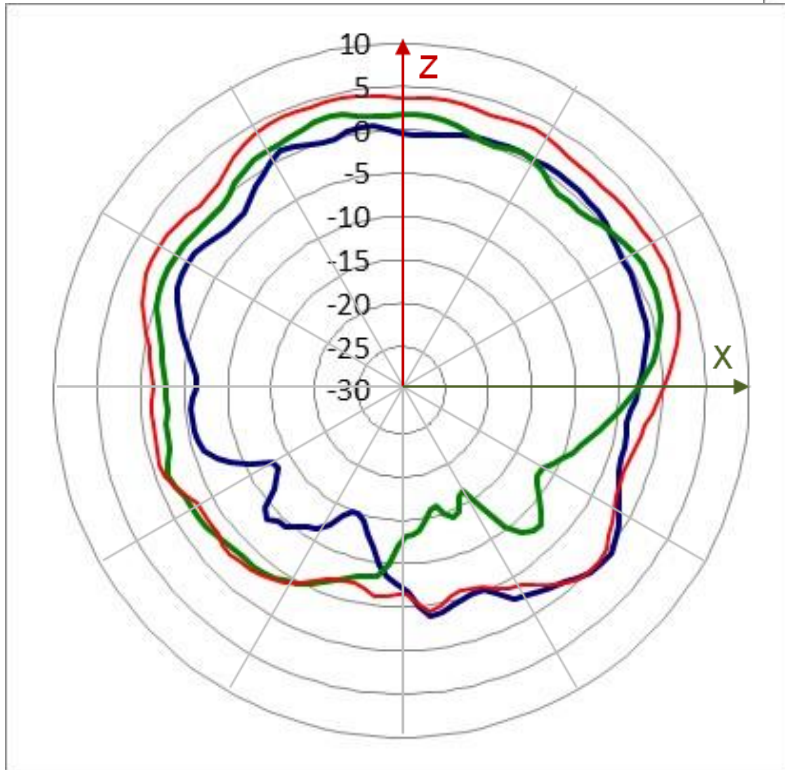
— SC1 — SC2 — Composite



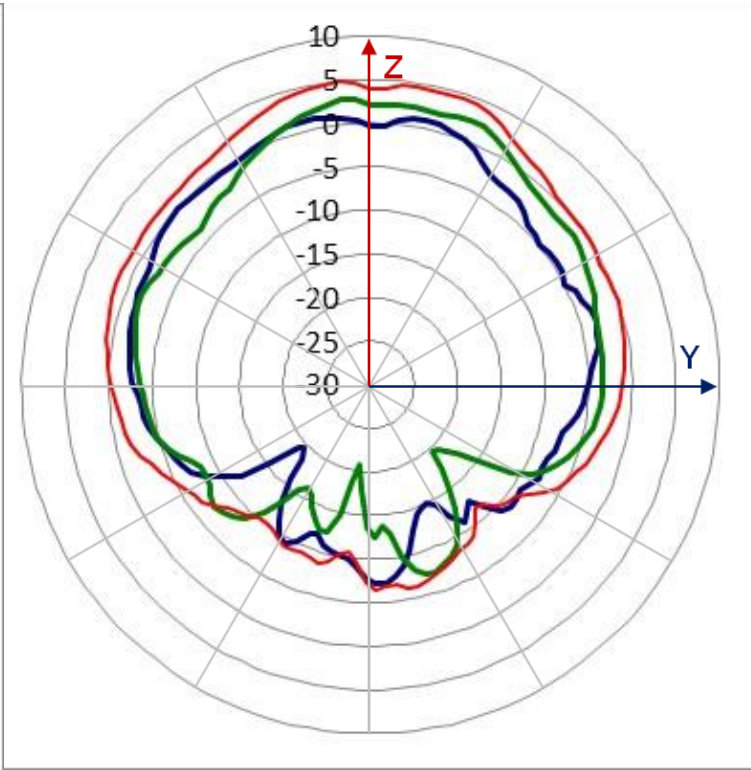


# Realized Gain Pattern Scanning @5500MHz

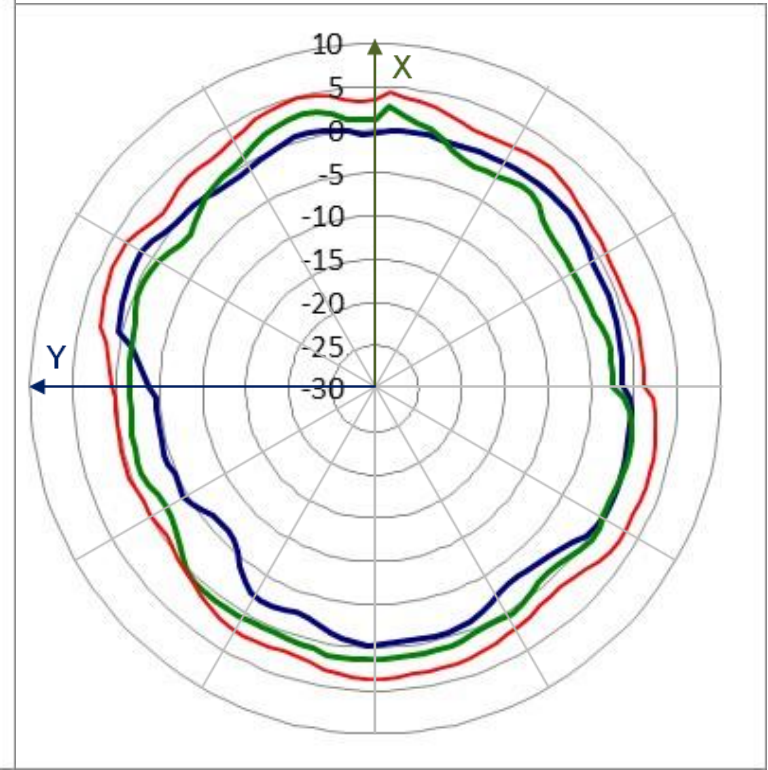
$\phi = 0$



$\phi = 90$



$\theta = 60$



— SC1 — SC2 — Composite

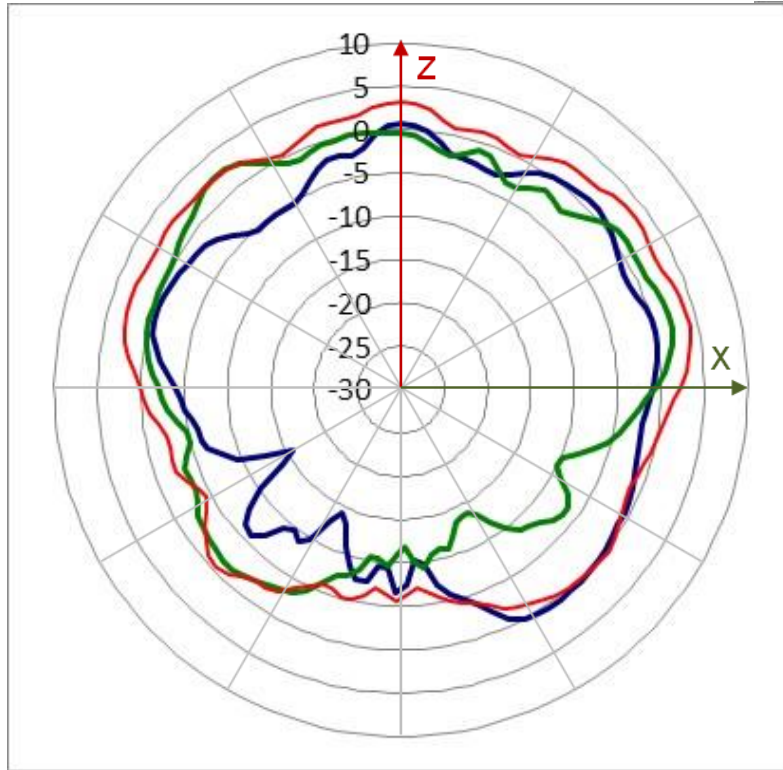
— SC1 — SC2 — Composite

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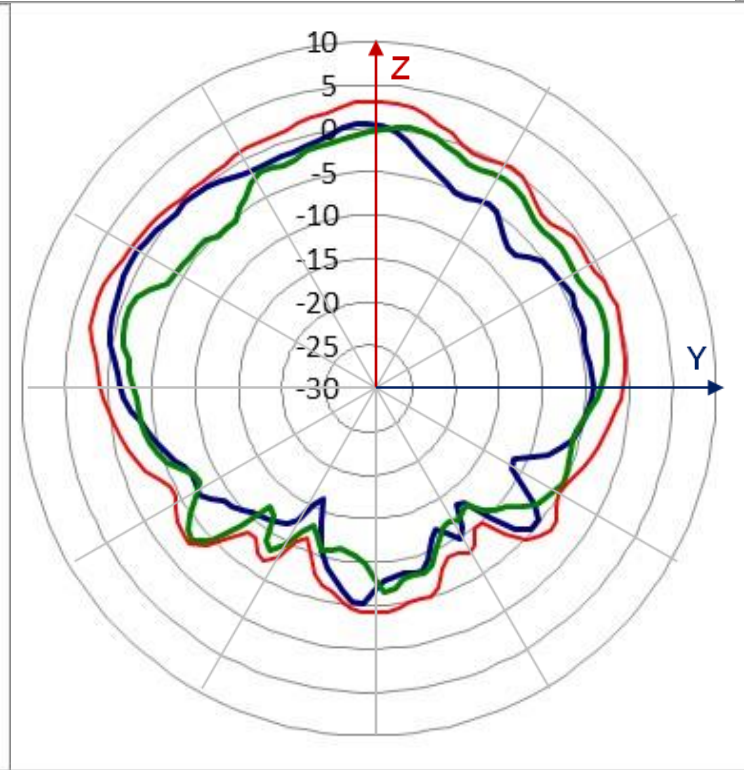


# Realized Gain Pattern Scanning Realized Gain Pattern @6565MHz

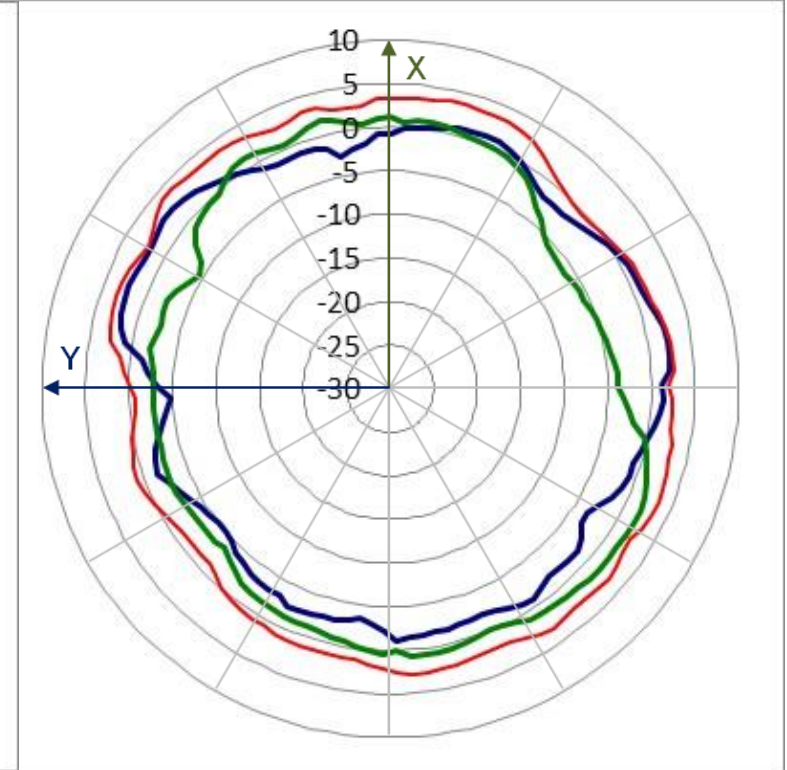
$\phi = 0$



$\phi = 90$



$\theta = 60$



— SC1 — SC2 — Composite

— SC1 — SC2 — Composite

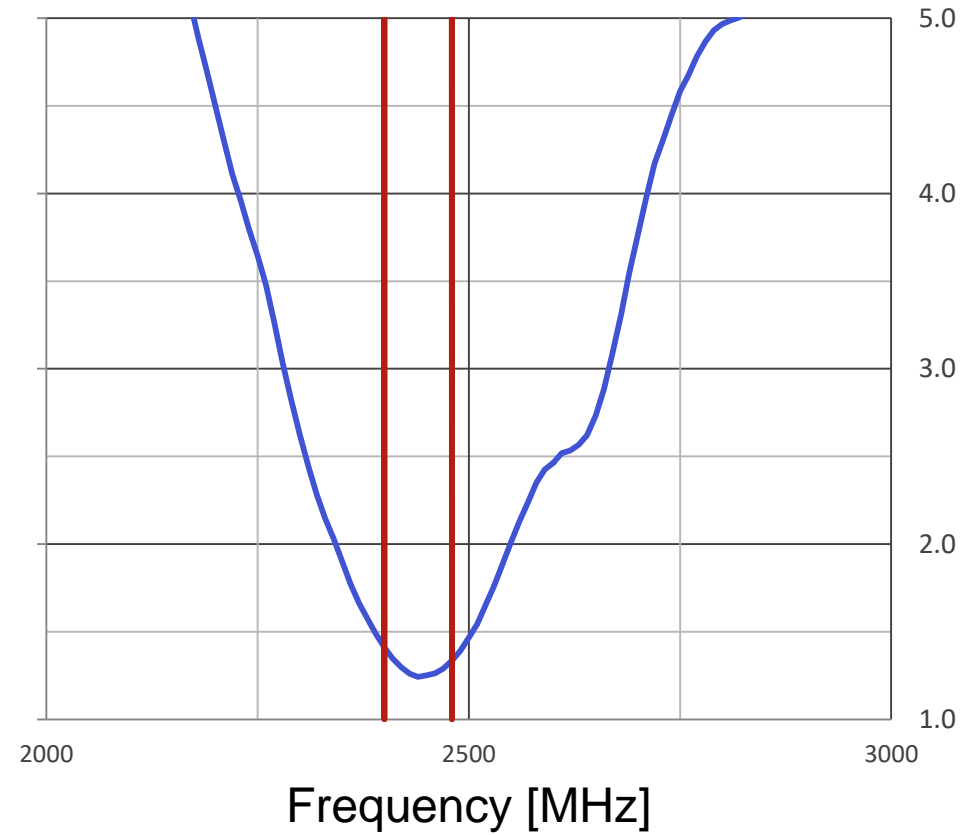
— SC1 — SC2 — Composite



# BLE

- **Maximum VSWR**
  - 1.5:1 on 2.4GHz
- **Average Efficiency**
  - ~58% on 2.4GHz
- **Peak Gain**
  - 3.8dBi on 2.4GHz

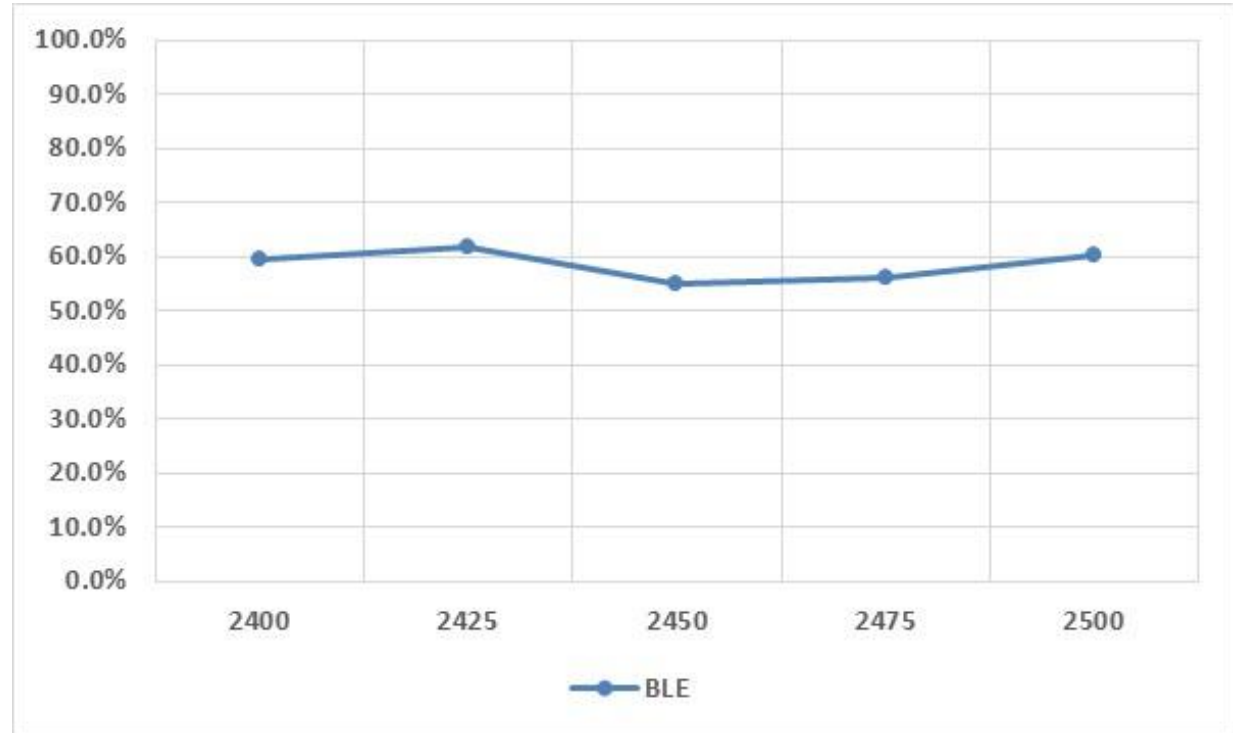




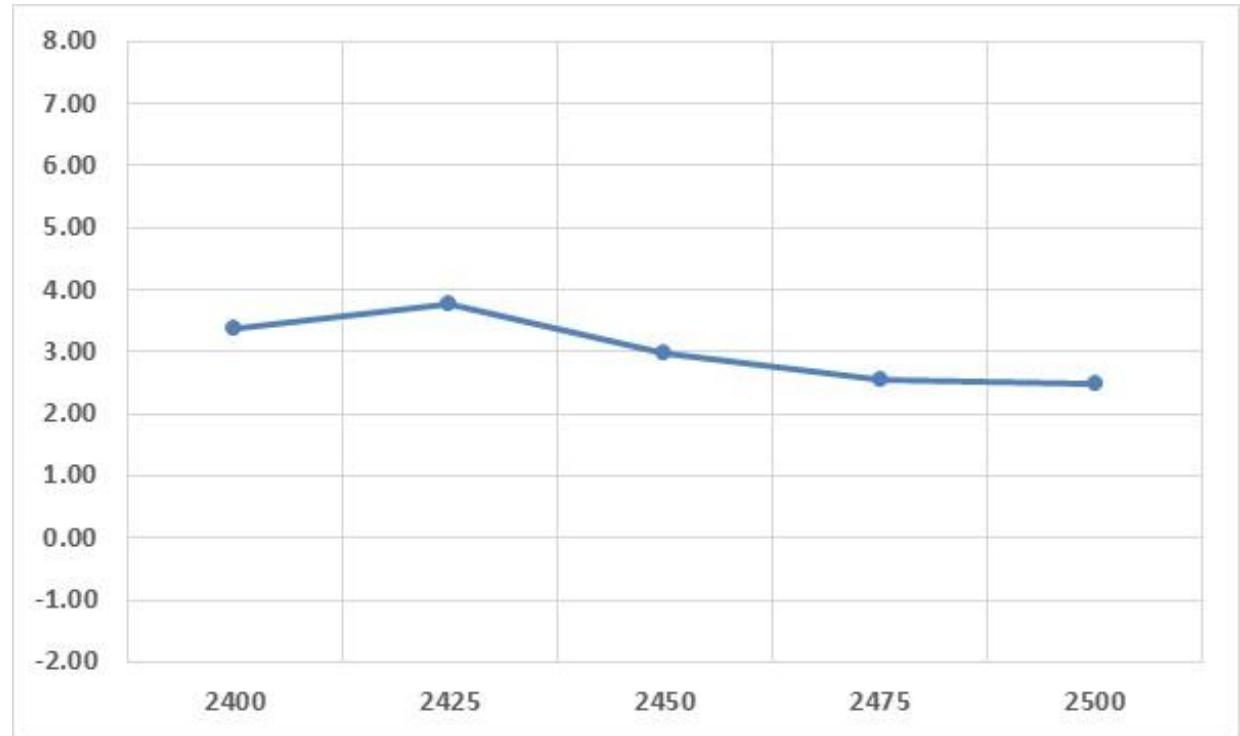
— BLE —



# Efficiency BLE



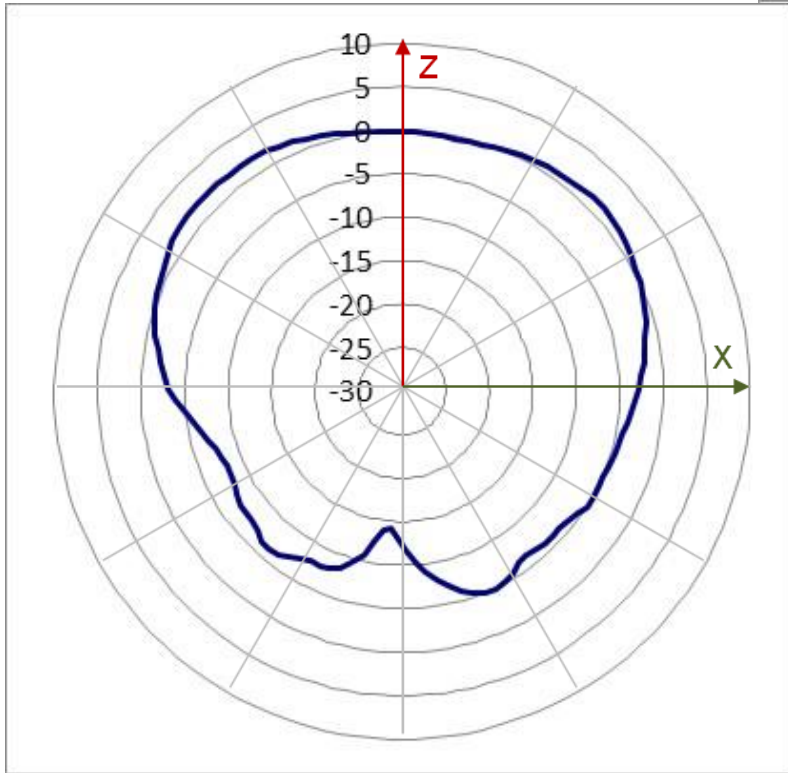
# Peak Gain BLE





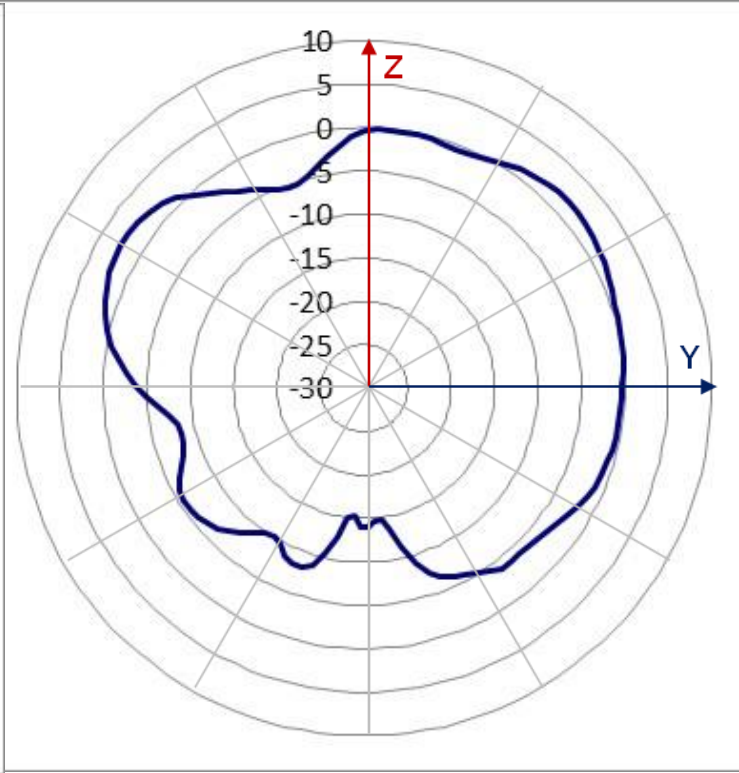
# Realized Gain Pattern BLE Realized Gain Pattern @2450MHz

$\phi = 0$



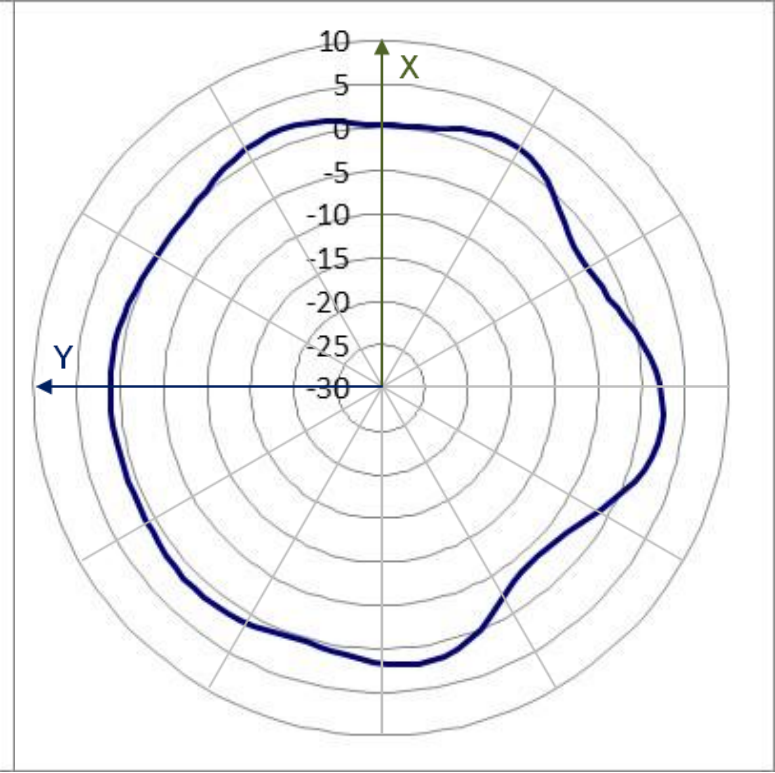
— BLE

$\phi = 90$



— BLE

$\theta = 60$



— BLE

