

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

2021/10/28

Provided by Chikang Su



# 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**

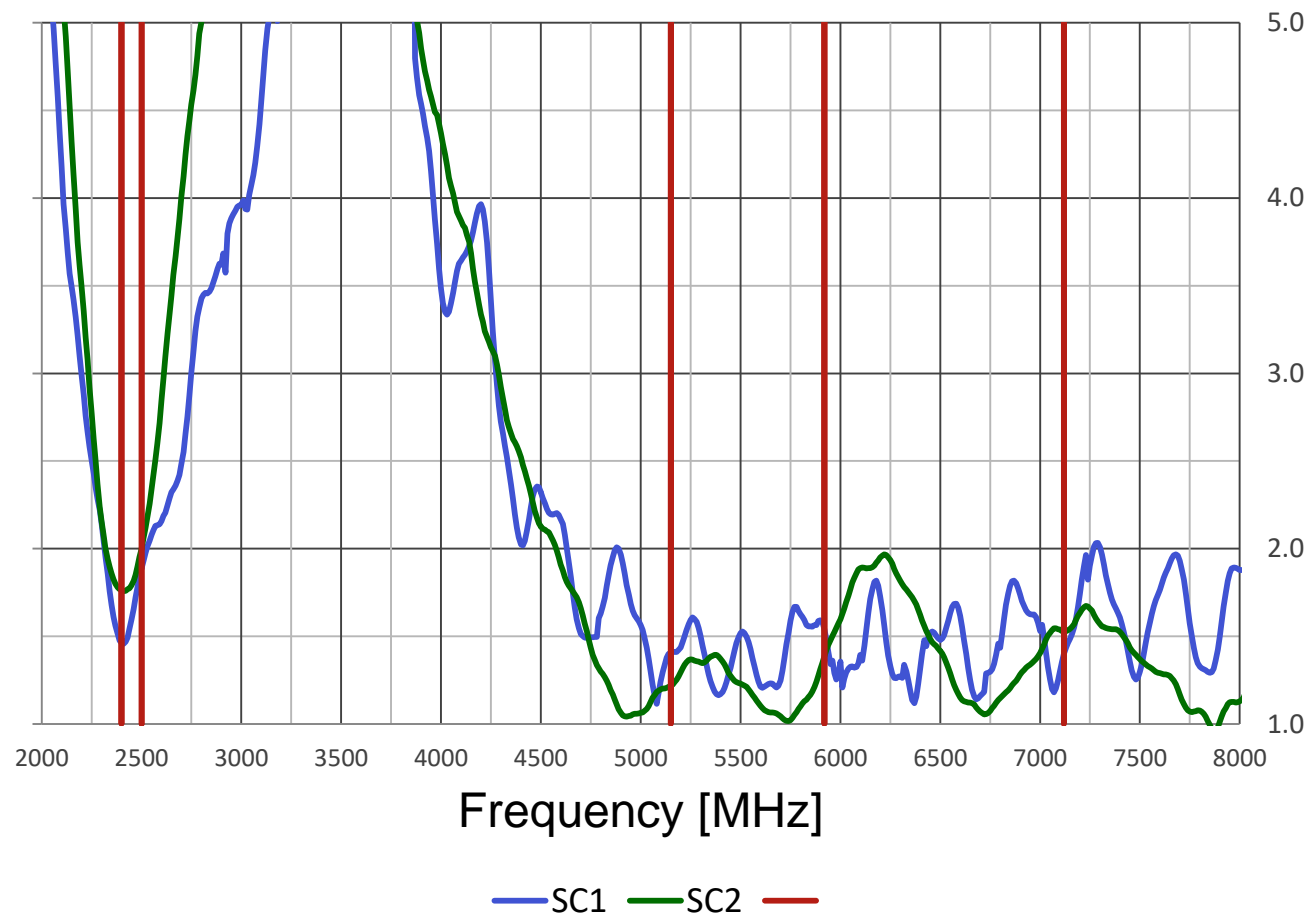
- ~62% on 2.4GHz / ~58% on 5GHz / ~58% on 6GHz

- **Peak Gain**

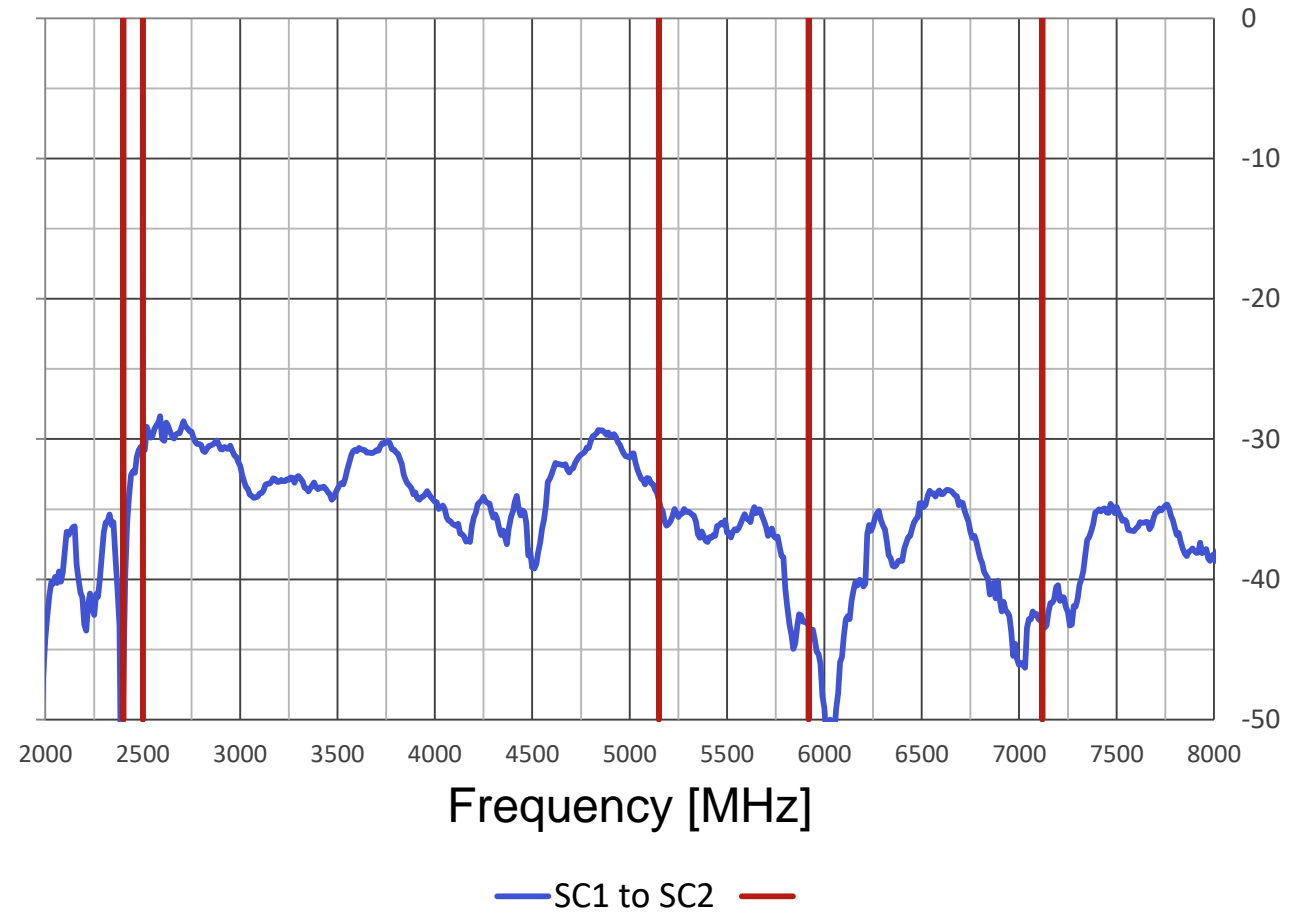
- 3.3dBi on 2.4GHz / 4.0dBi on 5GHz / 5.3dBi on 6GHz



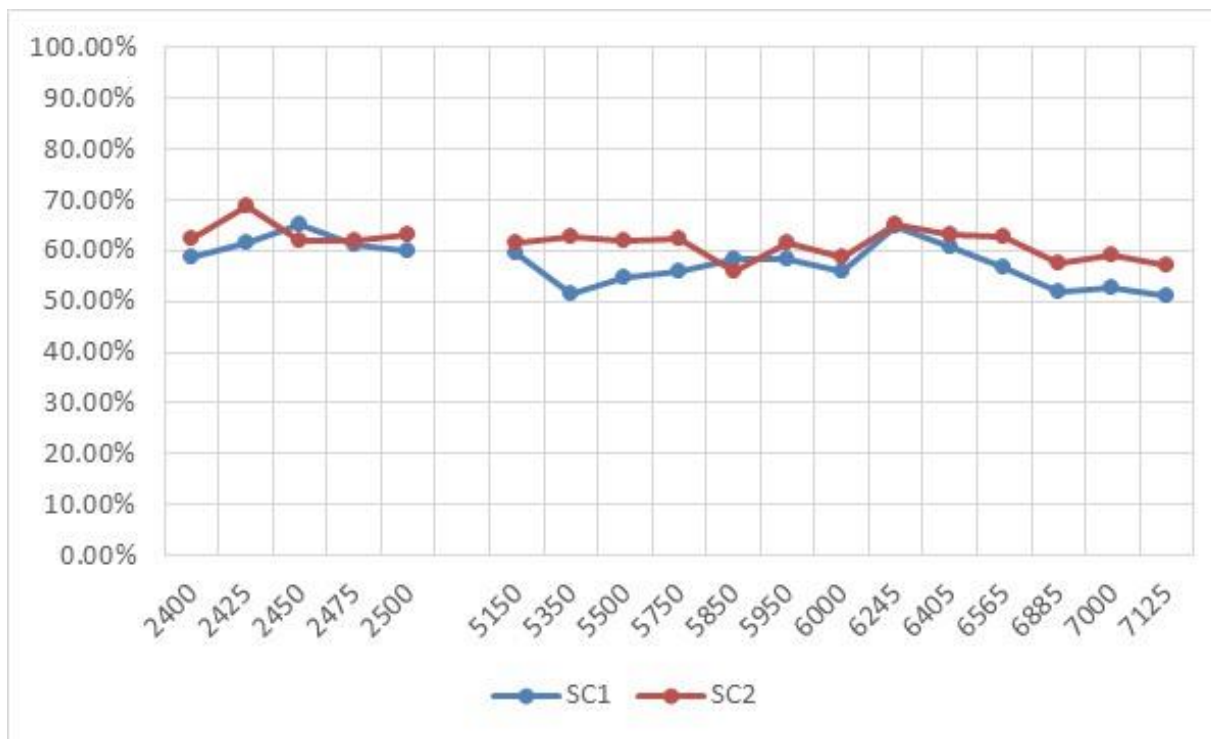
# VSWR Scanning



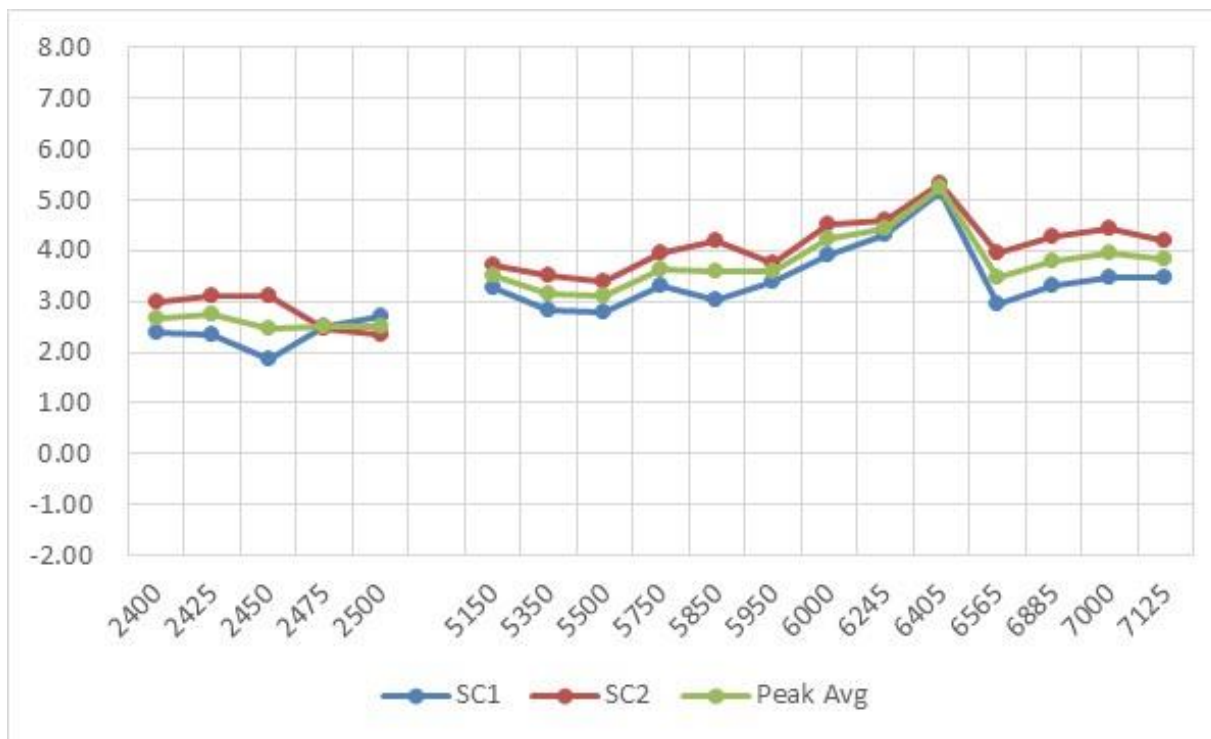
# Isolation Scanning



# Efficiency Scanning

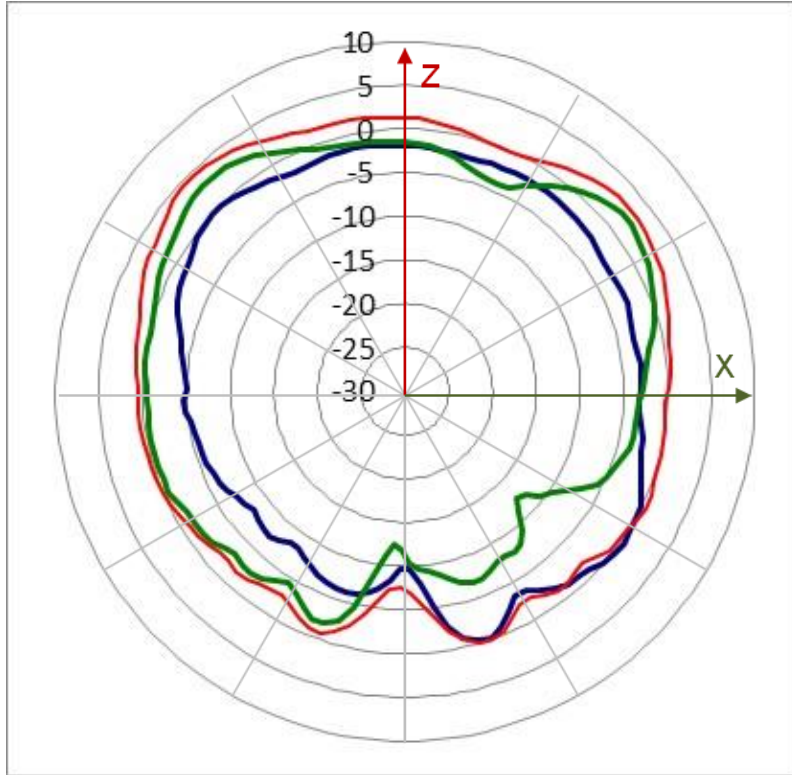


# Peak Gain Scanning



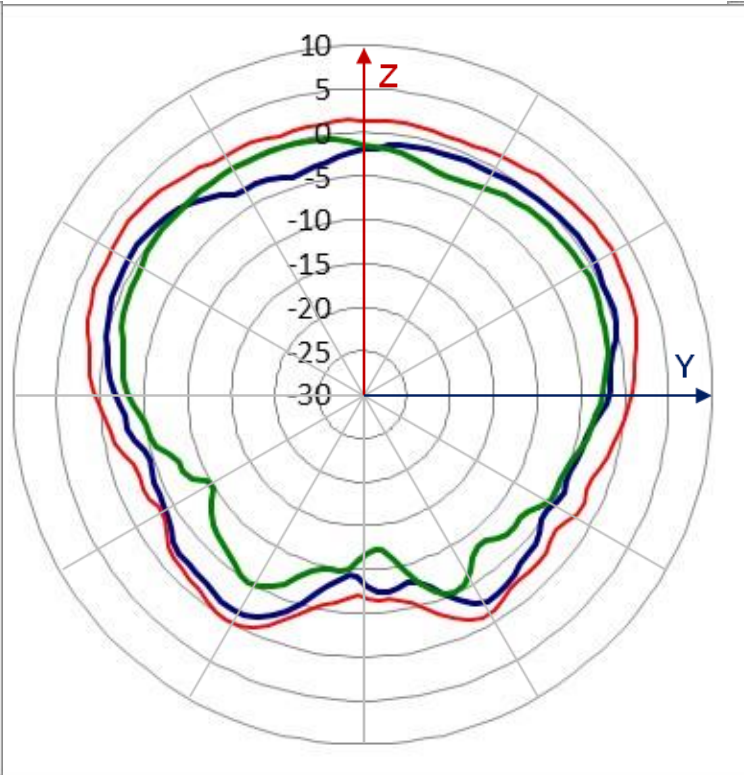
# Realized Gain Pattern Scanning @2450MHz

$\phi = 0$



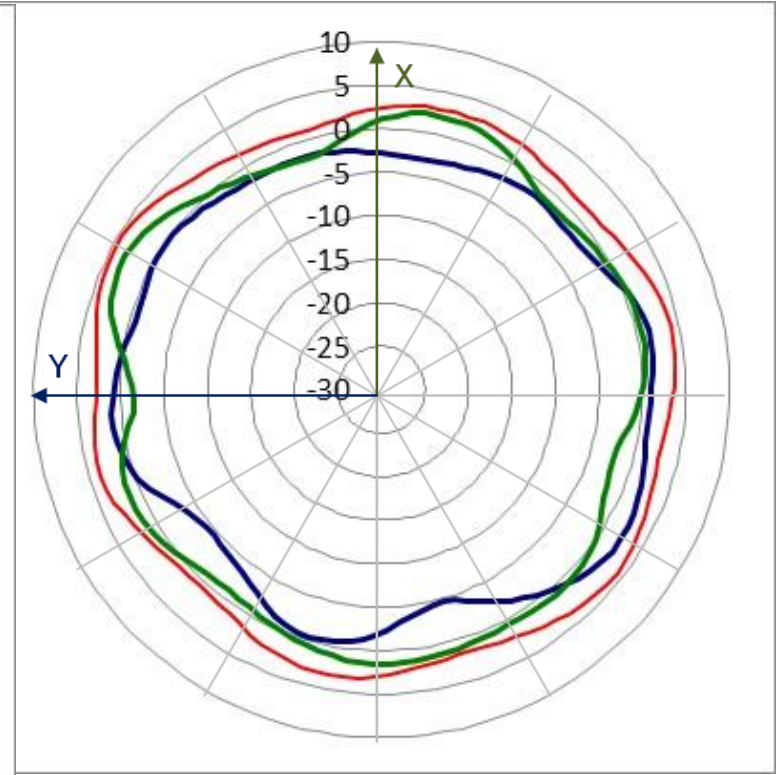
— SC1 — SC2 — Composite

$\phi = 90$



— SC1 — SC2 — Composite

$\theta = 60$



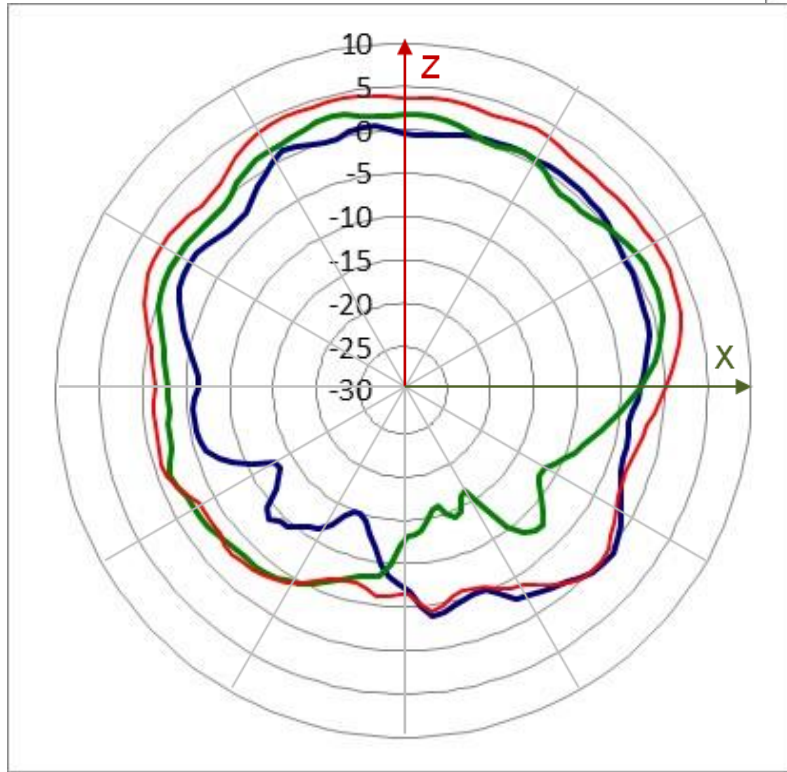
— SC1 — SC2 — Composite





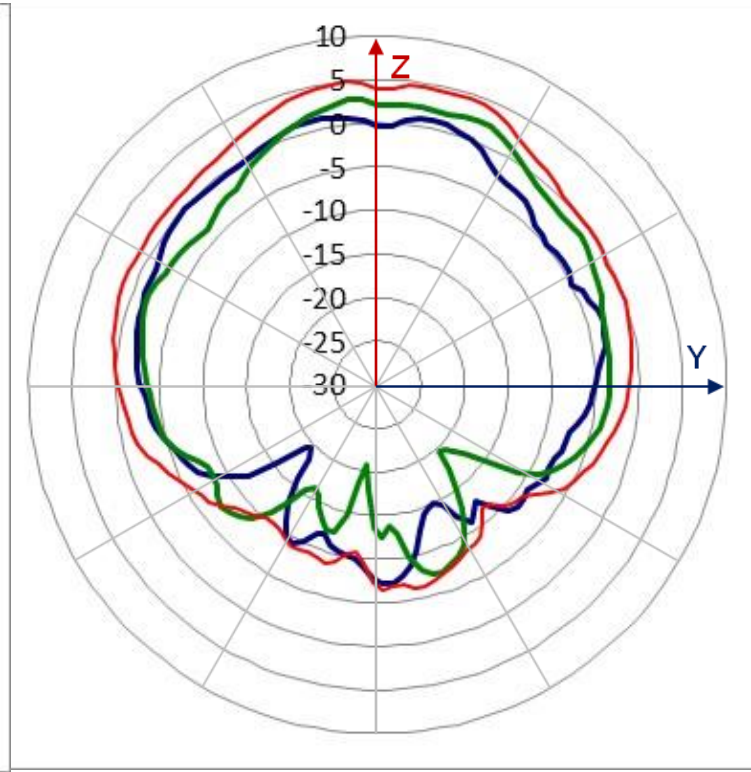
# Realized Gain Pattern Scanning @5500MHz

$\phi = 0$



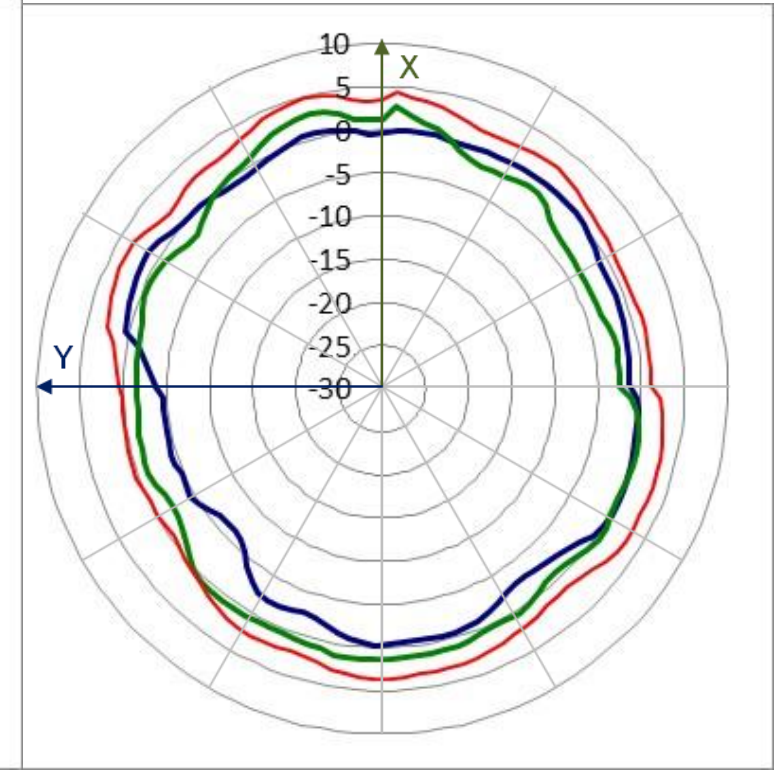
— SC1 — SC2 — Composite

$\phi = 90$



— SC1 — SC2 — Composite

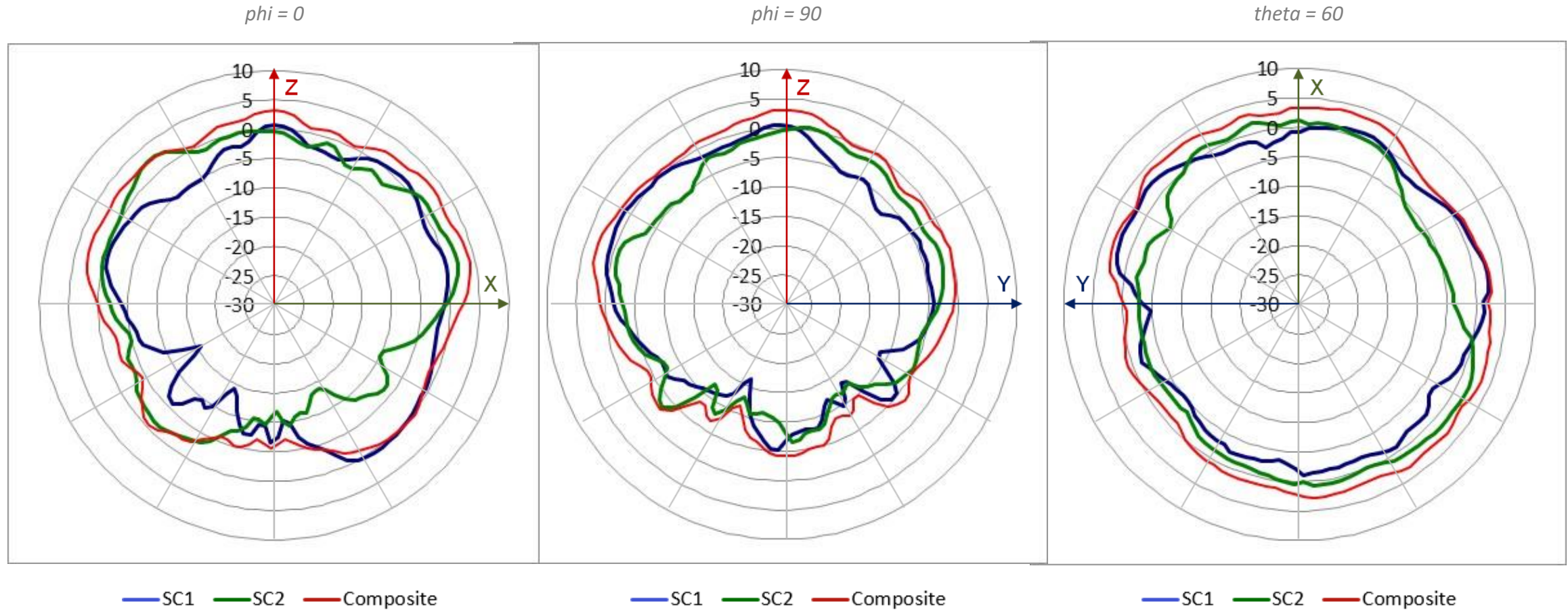
$\theta = 60$



— SC1 — SC2 — Composite



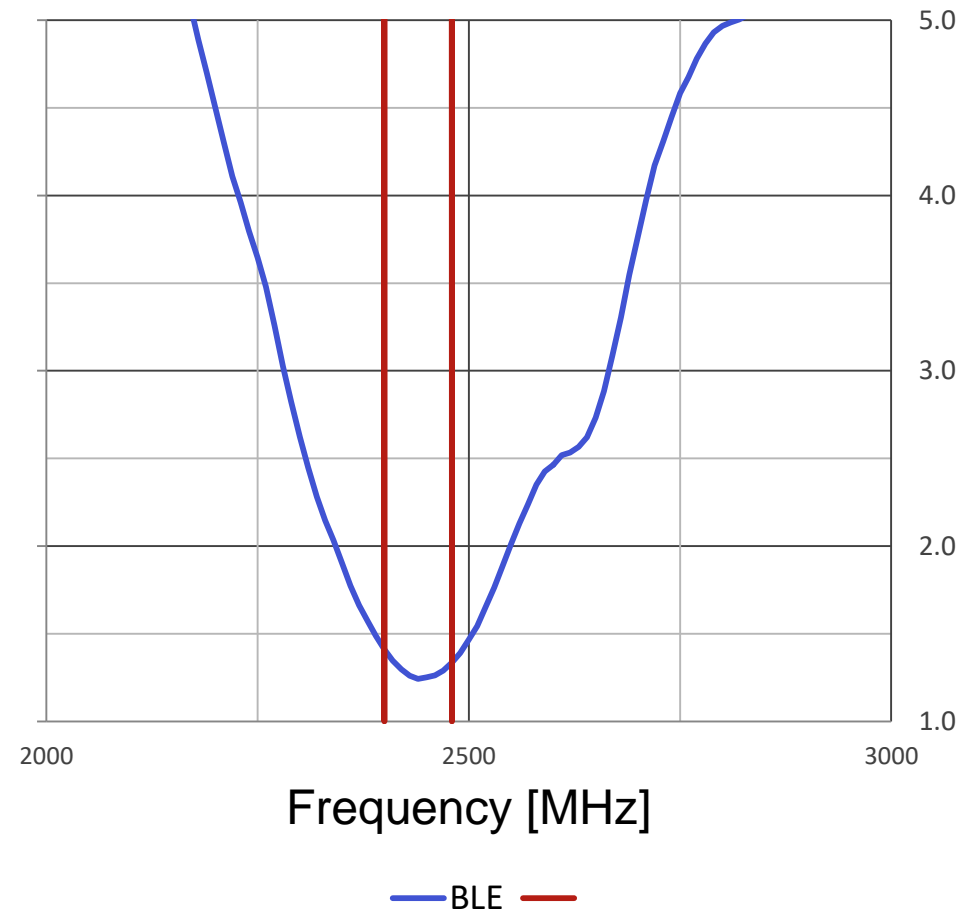
# Realized Gain Pattern Scanning Realized Gain Pattern @6565MHz



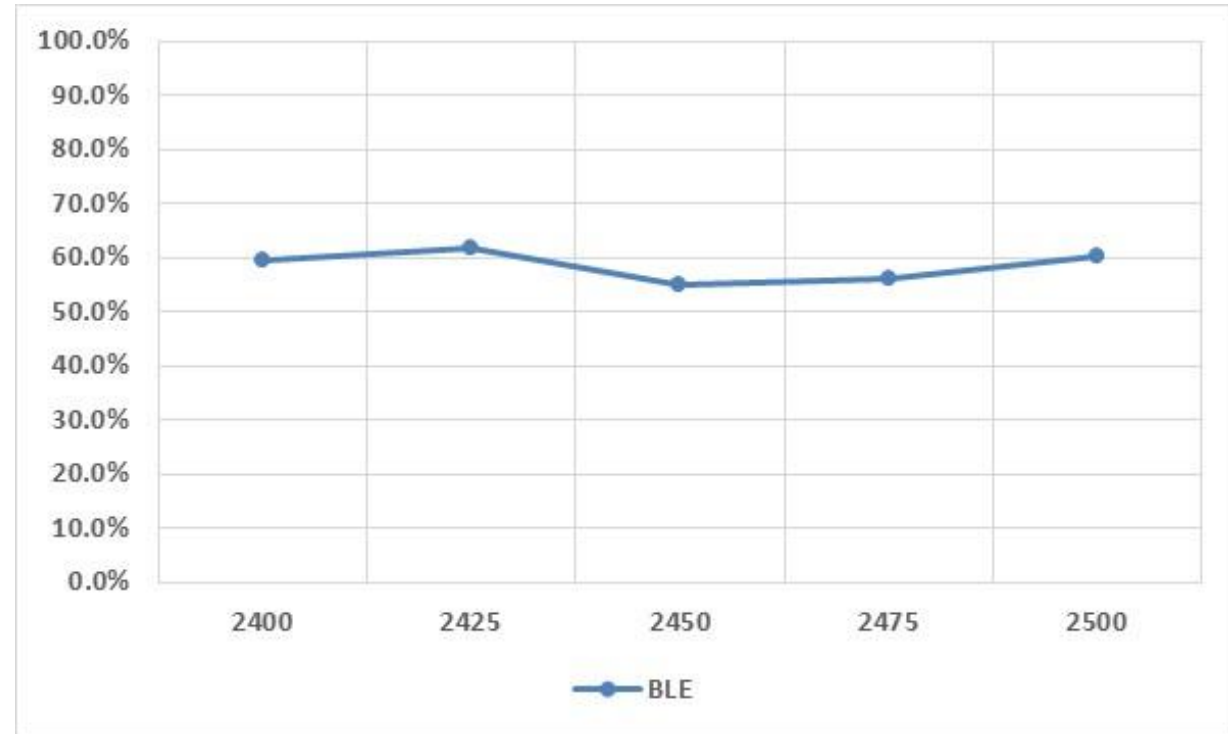
# BLE

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

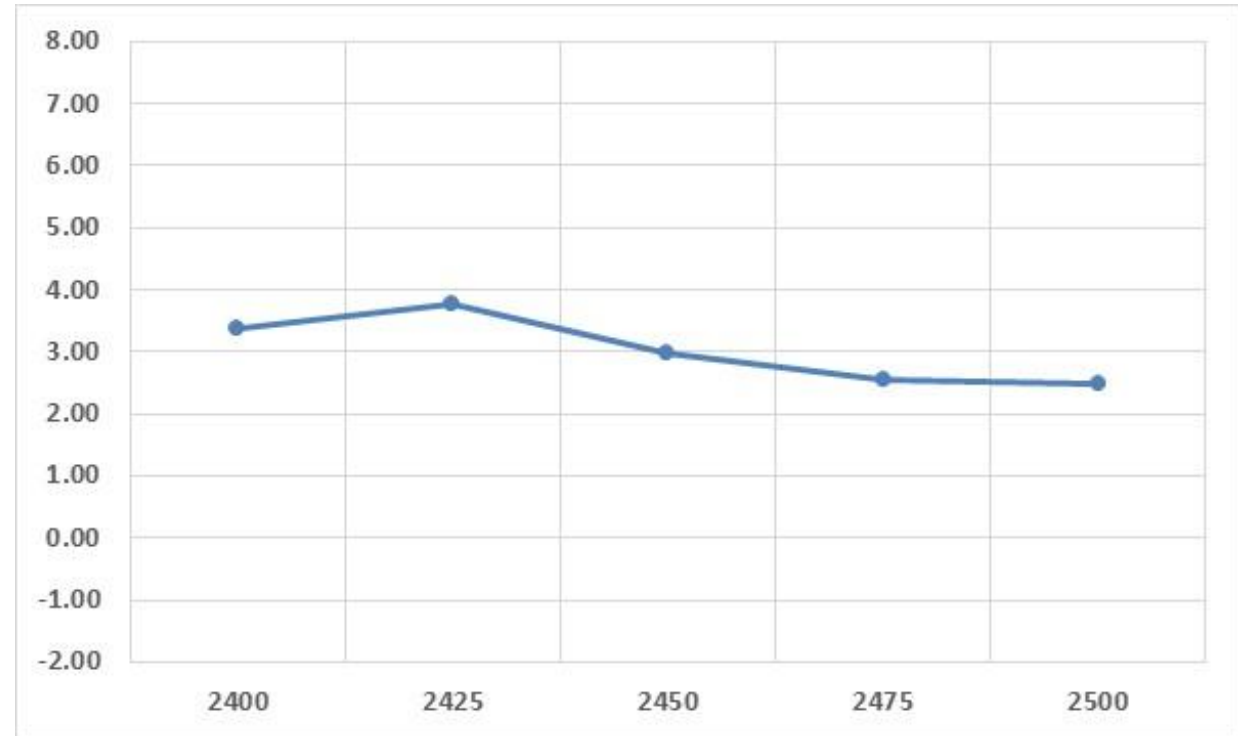




# Efficiency BLE



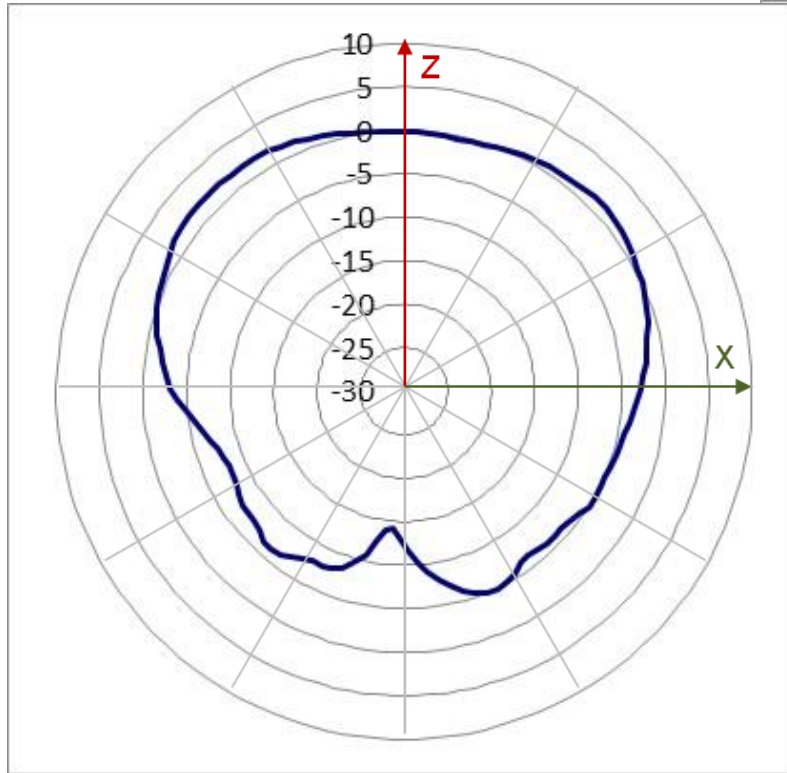
# Peak Gain BLE





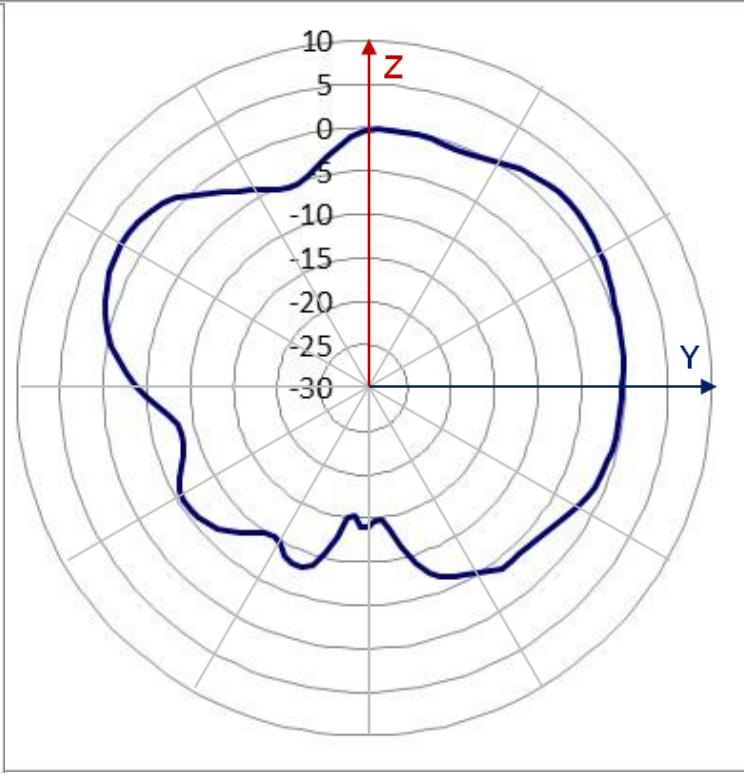
# Realized Gain Pattern BLE Realized Gain Pattern @2450MHz

$\phi = 0$



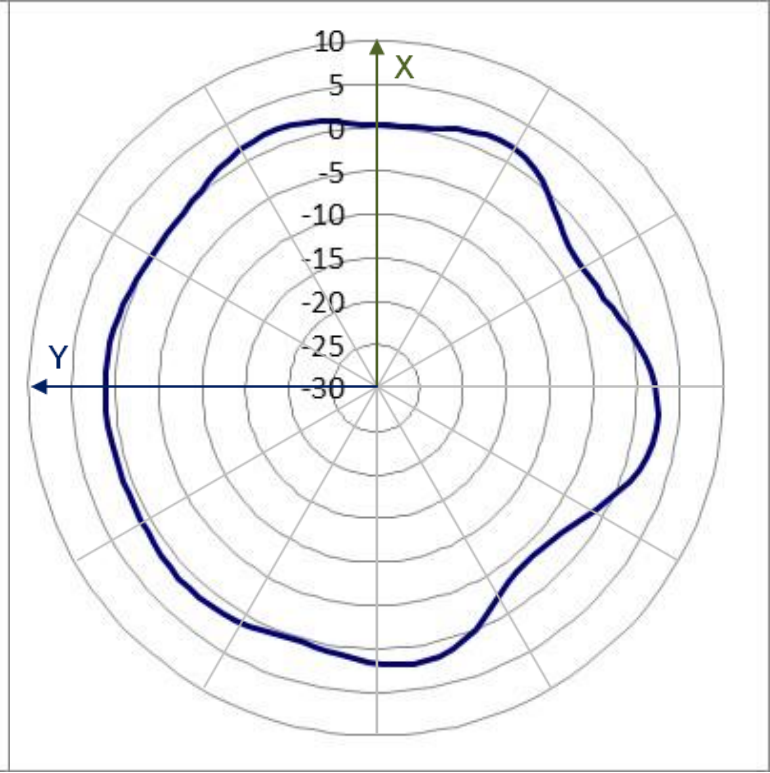
— BLE

$\phi = 90$



— BLE

$\theta = 60$



— BLE

