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# **G7LYP Antenna Test Report**

Jan. 21, 2025

Carl Hung

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Antenna Design Department

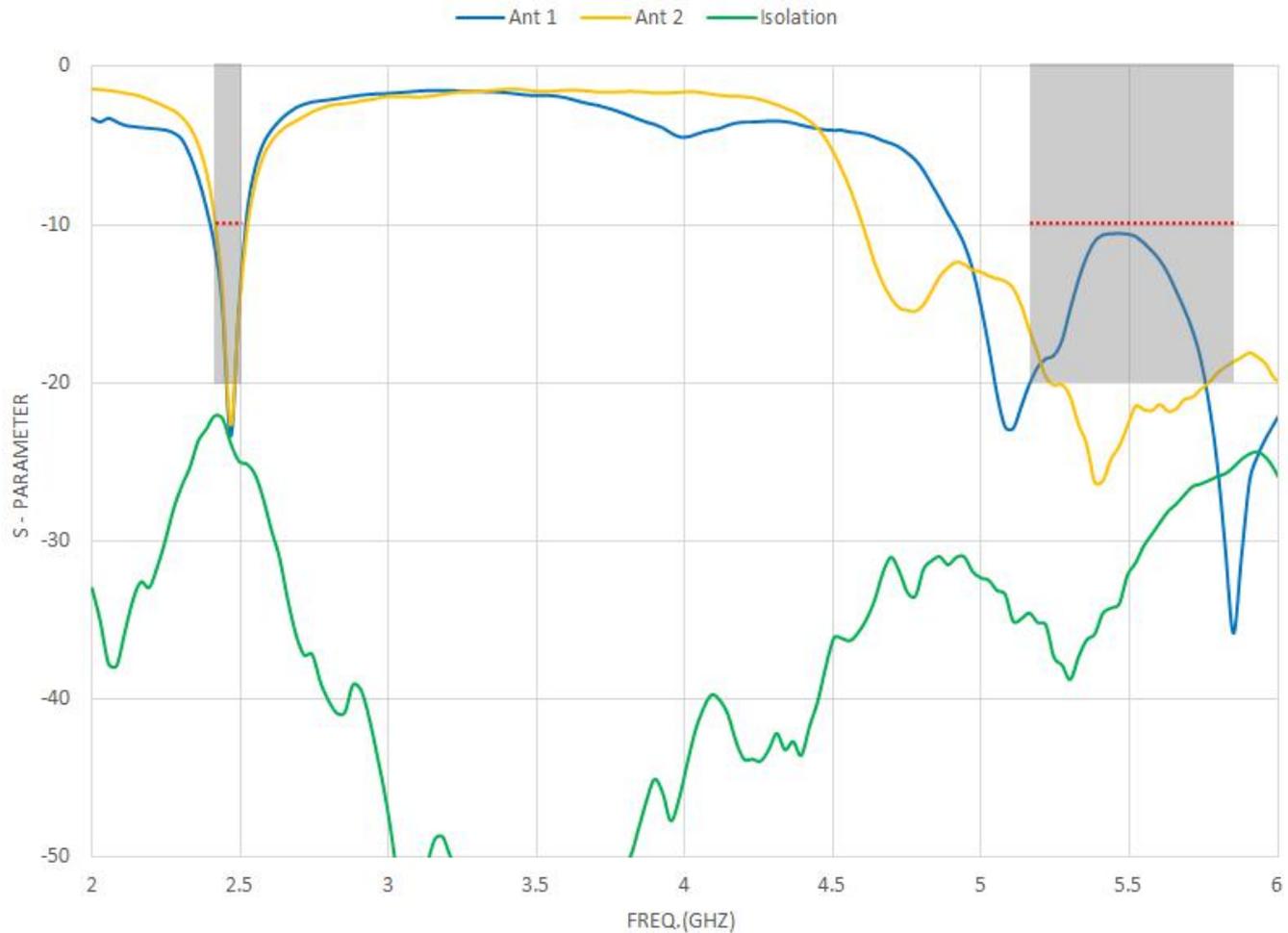
# Outline

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

# Antenna Structure & Placement

| Ant No. | Function       | Operating Band                             | Type | Material | Feeding | Dimension                                  |
|---------|----------------|--|------|----------|---------|--|
| Ant-1   | WiFi dual band | 2400 MHz ~ 2500 MHz<br>5150 MHz ~ 5850 MHz | PIFA | FPCB     | Cable   | 30(L) x 18(W) x 0.15(T)<br>mm <sup>3</sup> |
| Ant-2   | WiFi dual band | 2400 MHz ~ 2500 MHz<br>5150 MHz ~ 5850 MHz | PIFA | FPCB     | Cable   | 30(L) x 18(W) x 0.15(T)<br>mm <sup>3</sup> |

# Return Loss & Isolation

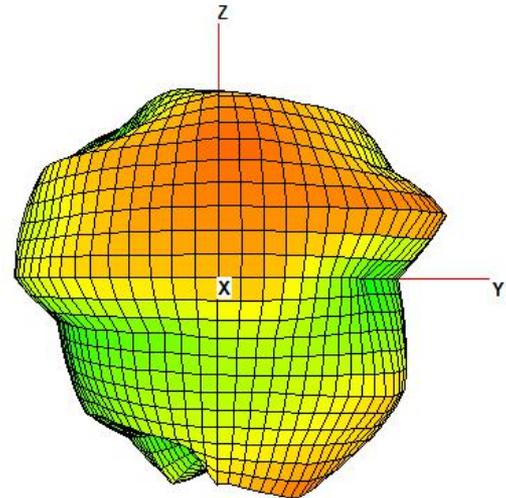
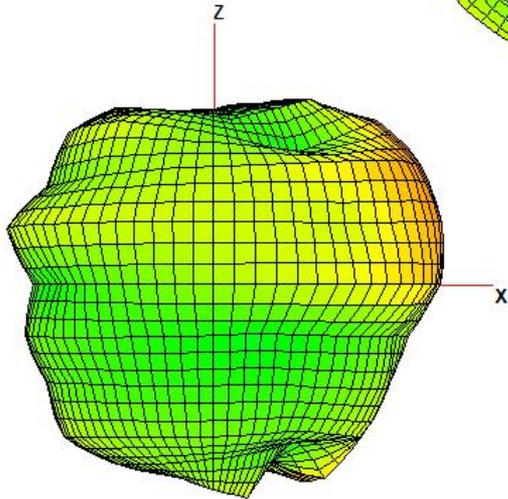
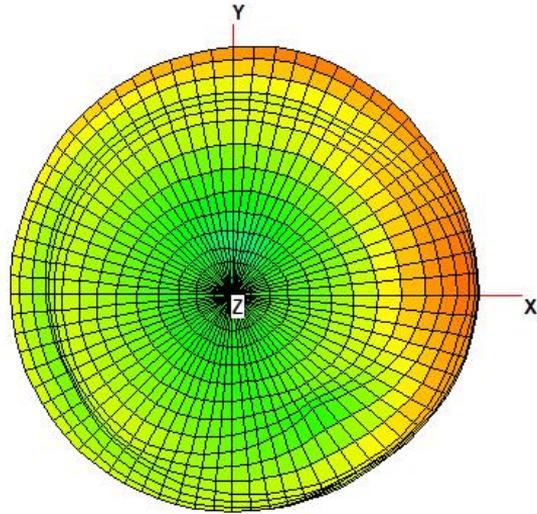
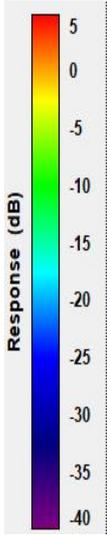


- Ant 1 return loss
- Ant 2 return loss
- Isolation

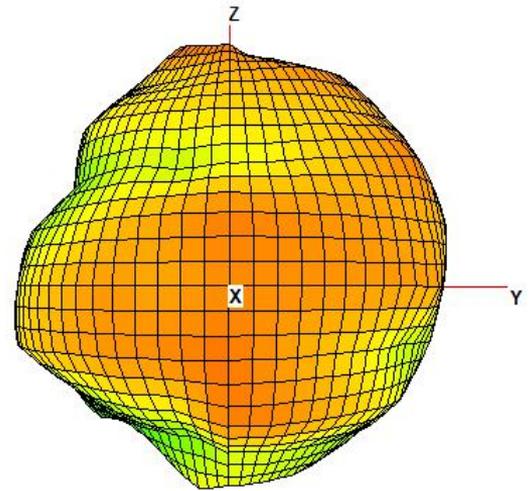
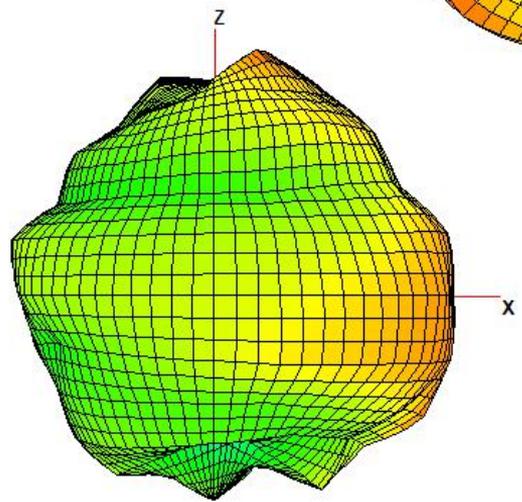
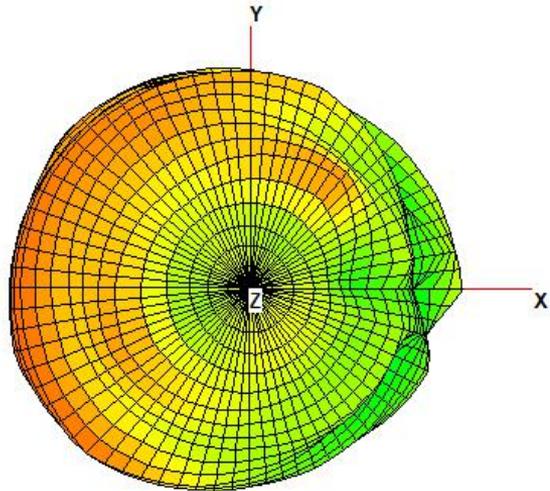
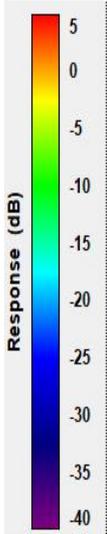
# Peak Gain & Efficiency

|                 | Ant-1           |                 | Ant-2           |                 |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| Frequency (MHz) | Efficiency (dB) | Peak Gain (dBi) | Efficiency (dB) | Peak Gain (dBi) |
| 2400            | -2.72           | 1.94            | -2.68           | 2.47            |
| 2450            | -2.54           | 2.79            | -2.31           | 2.69            |
| 2500            | -2.62           | 2.63            | -2.84           | 2.49            |
| 5150            | -2.61           | 4.43            | -1.98           | 4.47            |
| 5500            | -1.94           | 4.62            | -2.24           | 4.35            |
| 5850            | -2.51           | 4.14            | -2.45           | 4.10            |

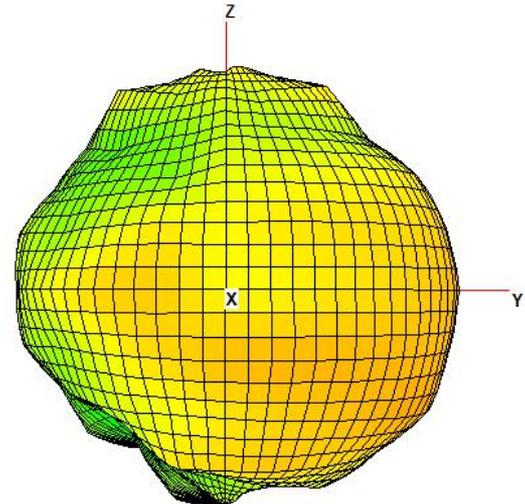
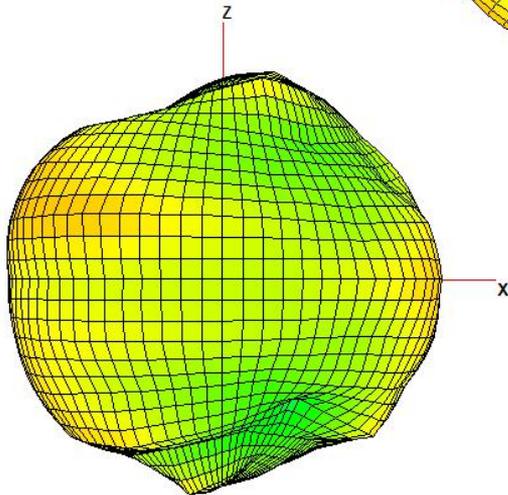
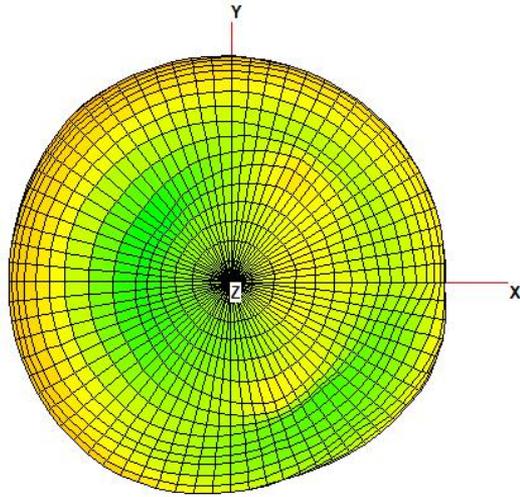
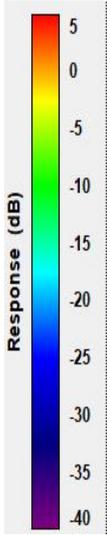
# Radiation Pattern \_ Ant-1 @ 2450 MHz



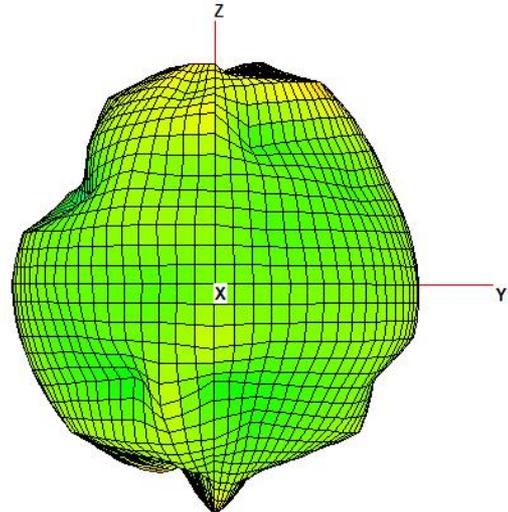
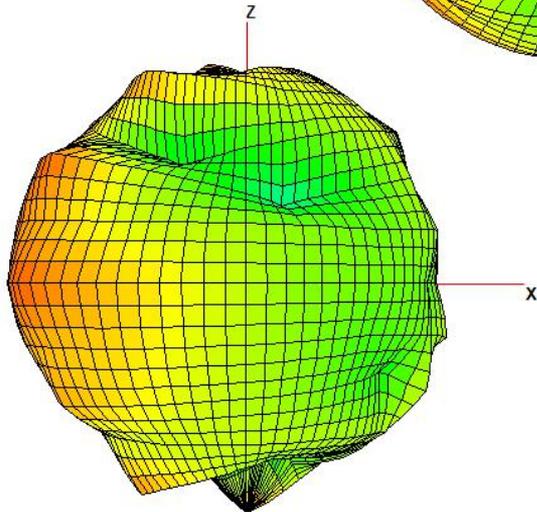
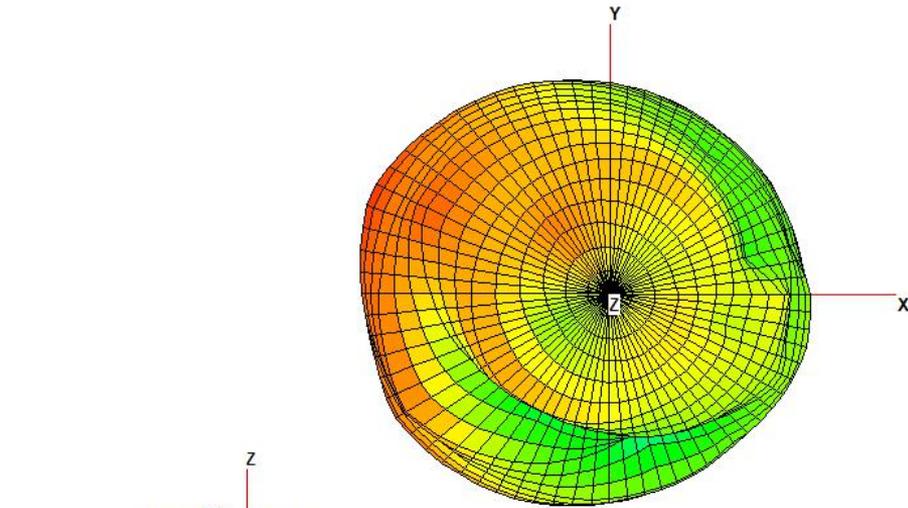
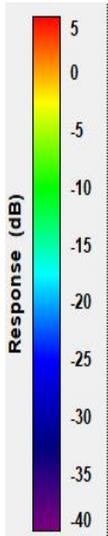
# Radiation Pattern \_ Ant-1 @ 5500 MHz



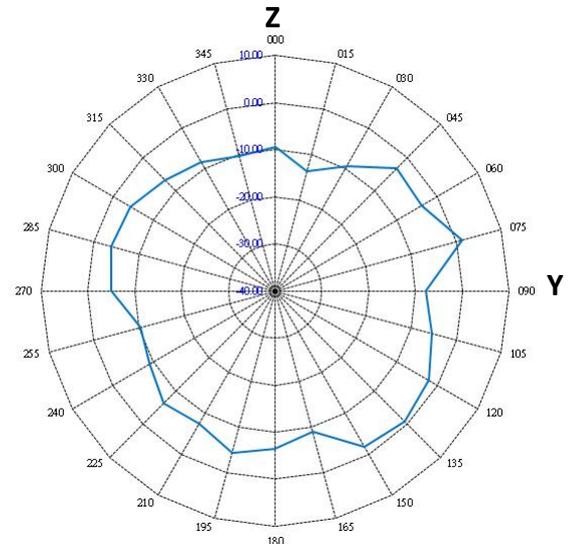
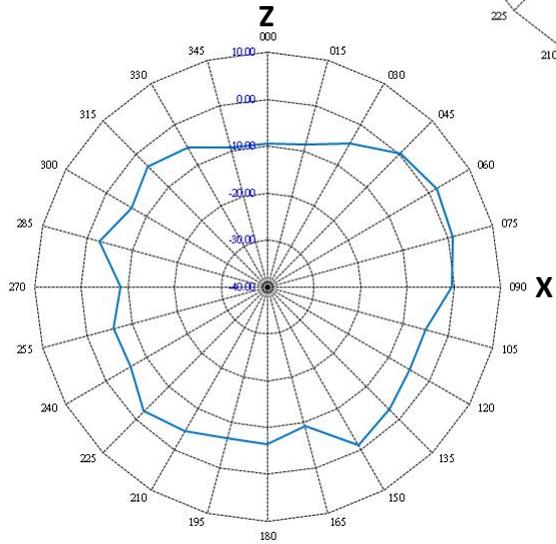
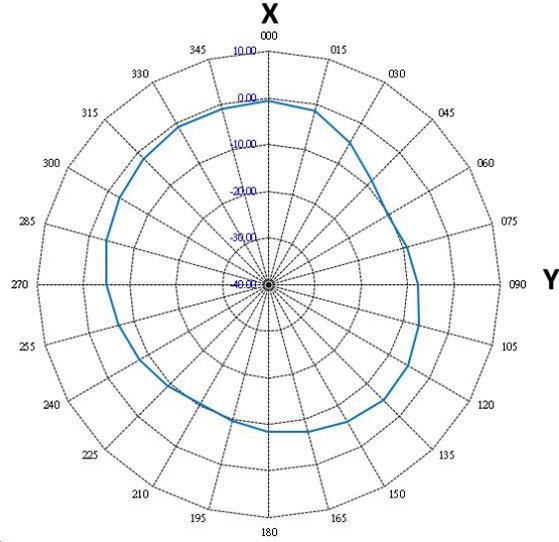
# Radiation Pattern \_ Ant-2 @ 2450 MHz



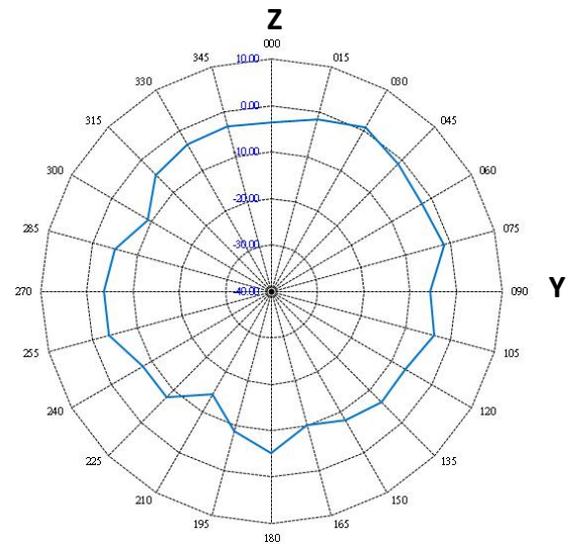
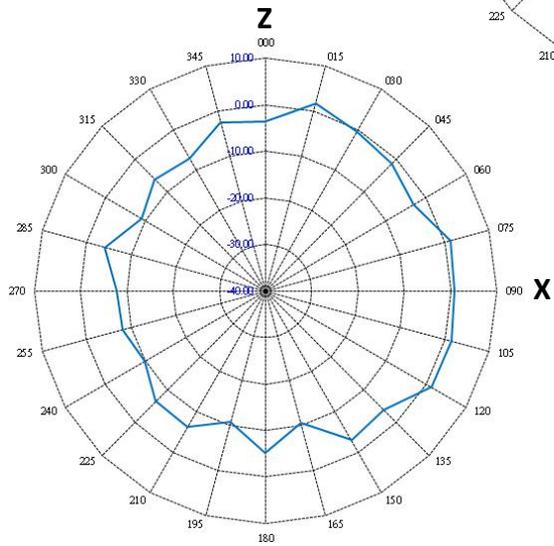
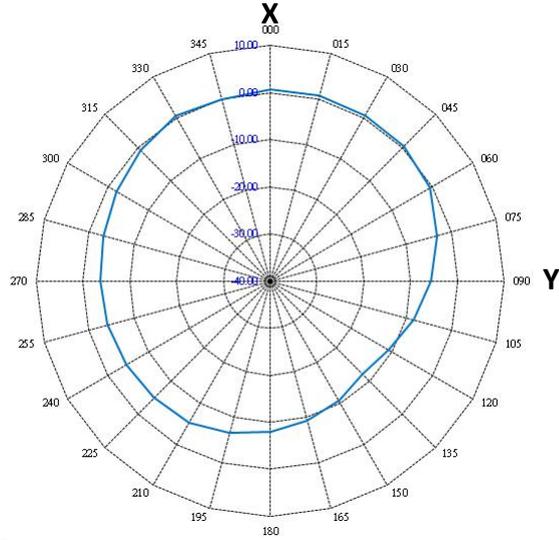
# Radiation Pattern \_ Ant-2 @ 5500 MHz



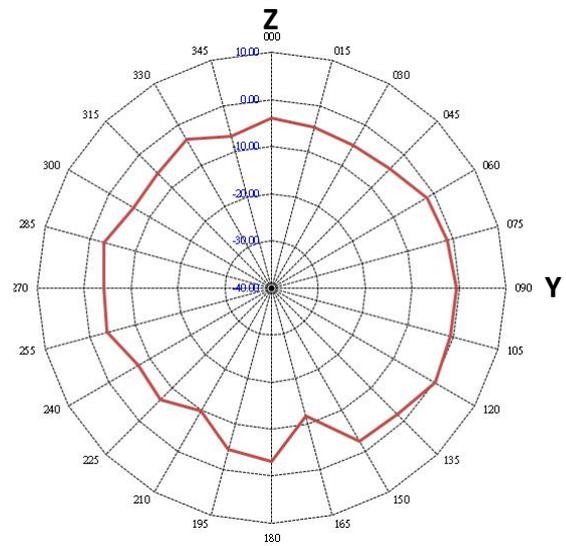
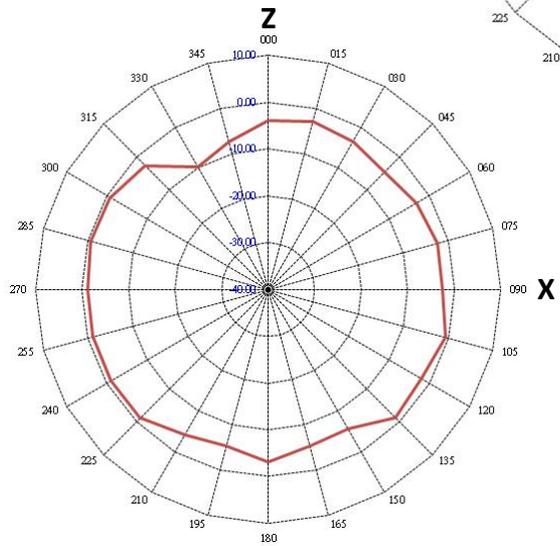
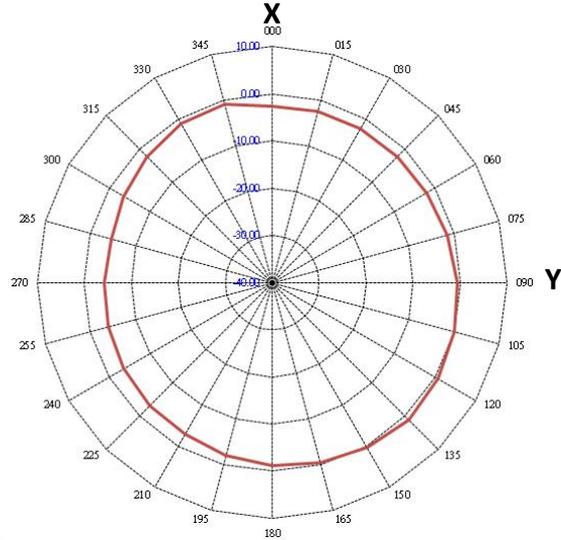
# Radiation Pattern \_ Ant-1 @ 2450 MHz



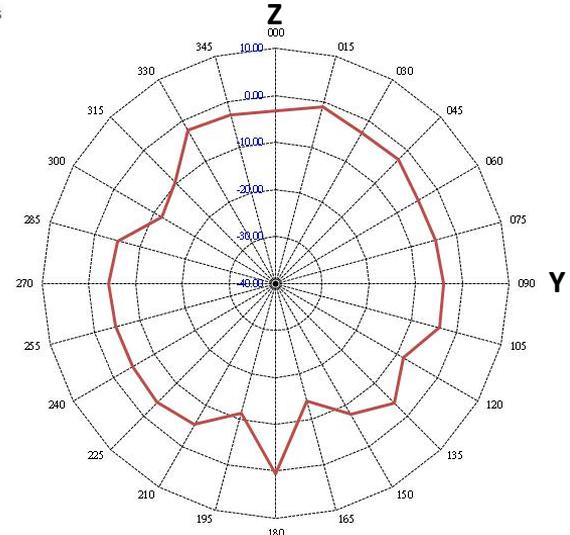
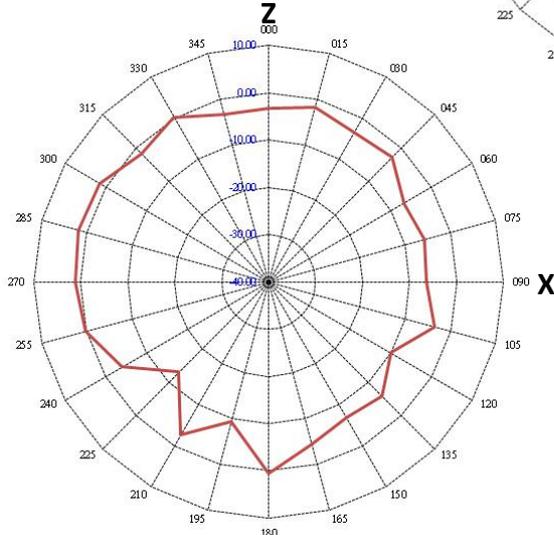
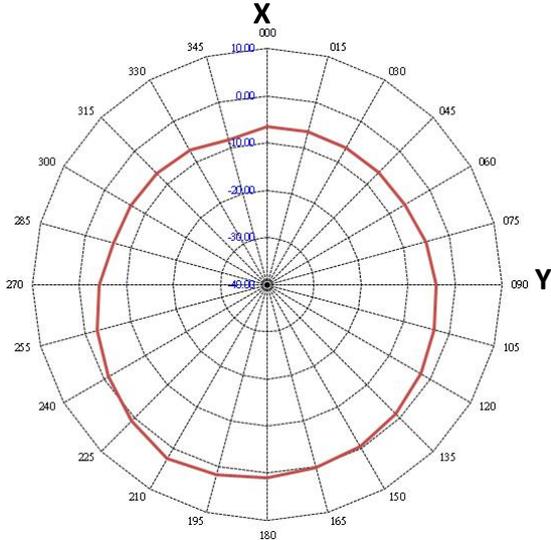
# Radiation Pattern \_ Ant-1 @ 5500 MHz



# Radiation Pattern \_ Ant-2 @ 2450 MHz



# Radiation Pattern \_ Ant-2 @ 5500 MHz



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