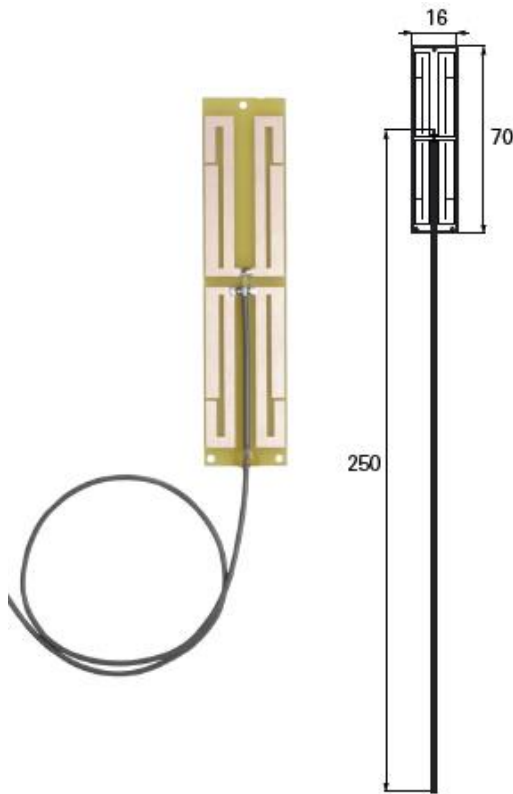


# Wireless Antenna for 2.4 GHz and 5GHz Application

Pulse Part Number CW3513



## Features

- Low profile
- Omni directional gain in XY-plane
- Size W x L x H (16 x 70 x 0.9 mm)
- Antenna feed cable length: 250mm (total) / 212mm (from radiator edge)
- Antenna feed cable: 1.13mm OD with U.FL compatible connector
- Lead free materials
- RoHS Compliant Product

## Applications

- Access point routers 802.11n
- WLAN/WiFi 802.11a/b/g/n

## Electrical specifications @ +25 °C

Note: Electrical characteristics are measured on free space.

### 2.4 – 2.5 GHz

Typical free space performance

Frequency Range [GHz]	2.4 – 2.5
Linear Average Gain [dBi]	-3.5
3D Peak Gain [dBi]	2.0
Total 3D Efficiency [%] / [dB]	72 / -1.4 (peak); 69 / -1.6 (band edges)
Return loss min. [dB]	-10
Impedance [Ω]	50
Operating Temperature [°C]	-40 to +85

### 4.9 – 5.85 GHz

Typical free space performance

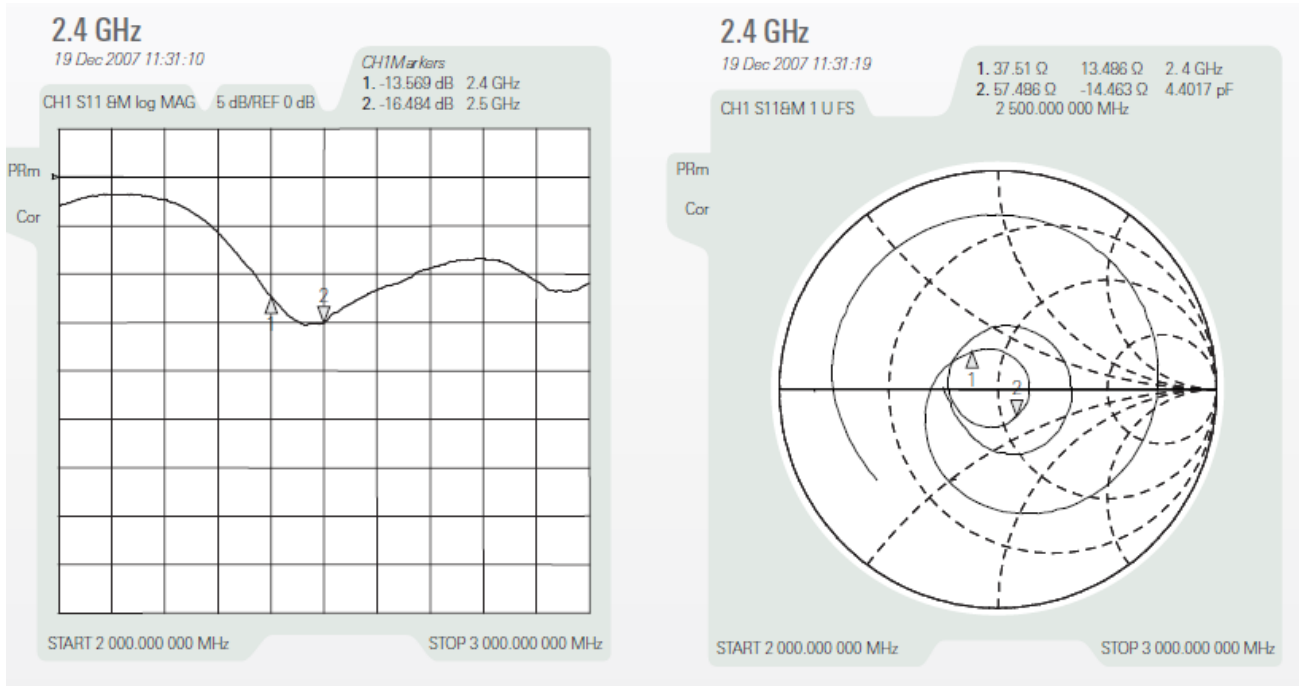
Frequency Range [GHz]	4.9– 5.85
Linear Average Gain [dBi]	-4.5
3D Peak Gain [dBi]	2.0
Total 3D Efficiency [%] / [dB]	65 / -1.9 (peak); 50 / -3 (band edges)
Return loss min. [dB]	-10
Impedance [Ω]	50
Operating Temperature [°C]	-40 to +85

# Wireless Antenna for 2.4 GHz and 5GHz Application

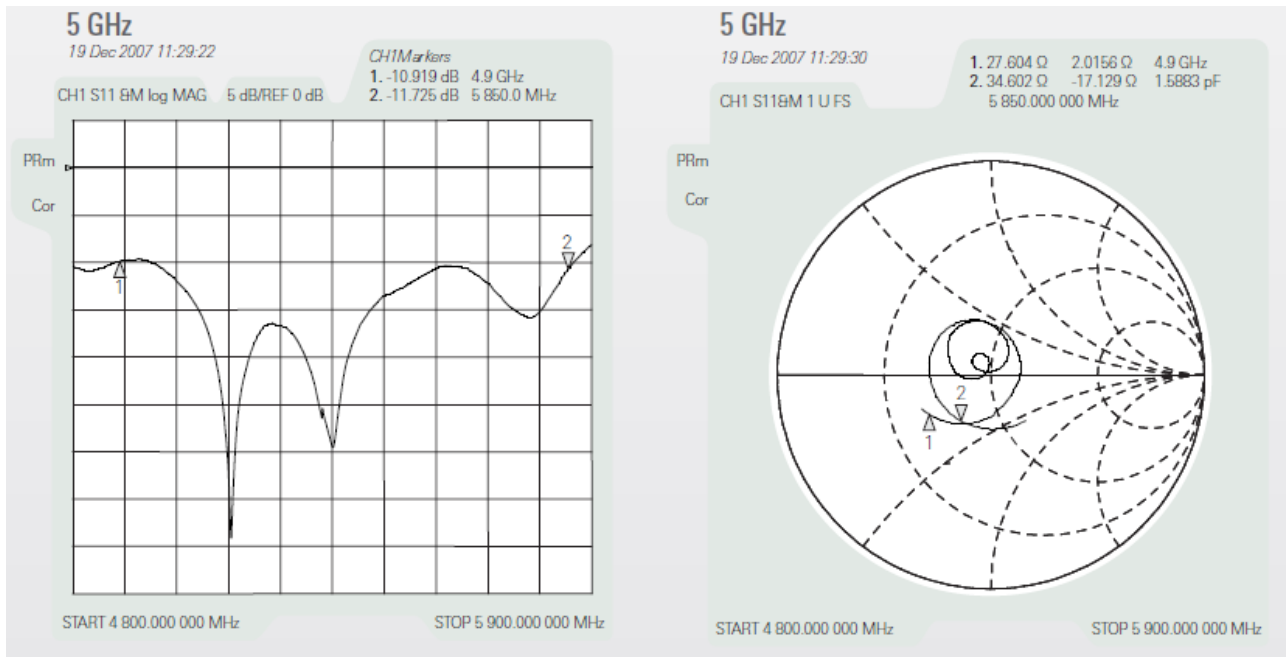
Pulse Part Number CW3513

## Typical Electrical Characteristics (T=25 °C)

### 2.4 GHz typical Return Loss S11/ impedance



### 5 GHz typical Return Loss S11/ impedance

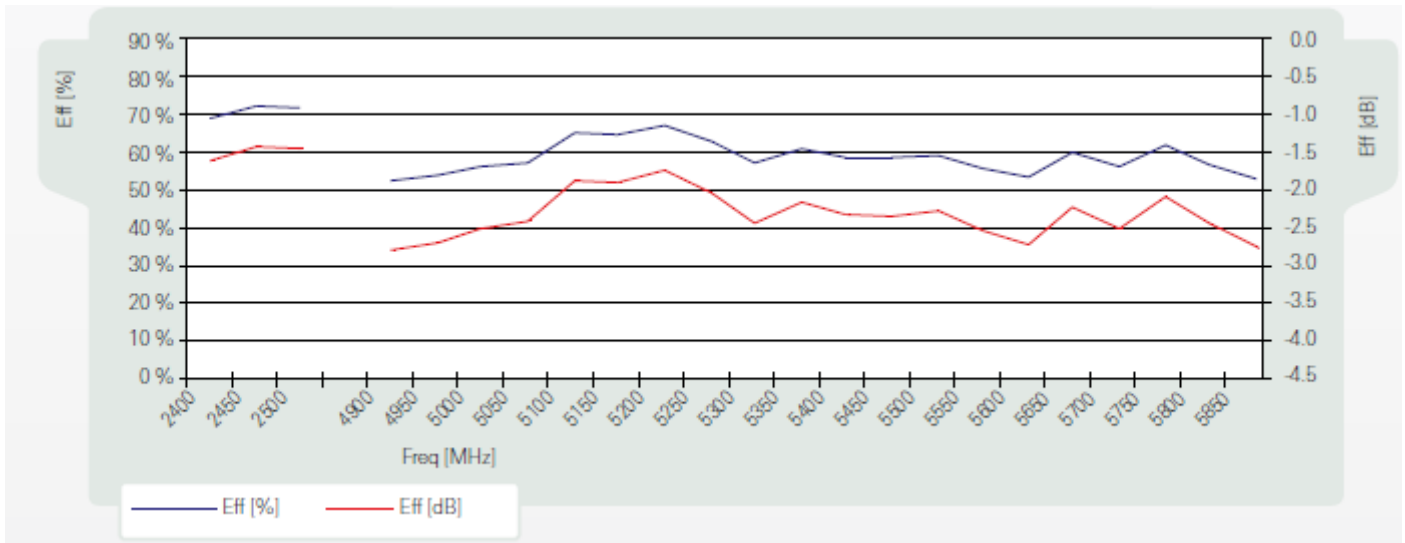


# Wireless Antenna for 2.4 GHz and 5GHz Application

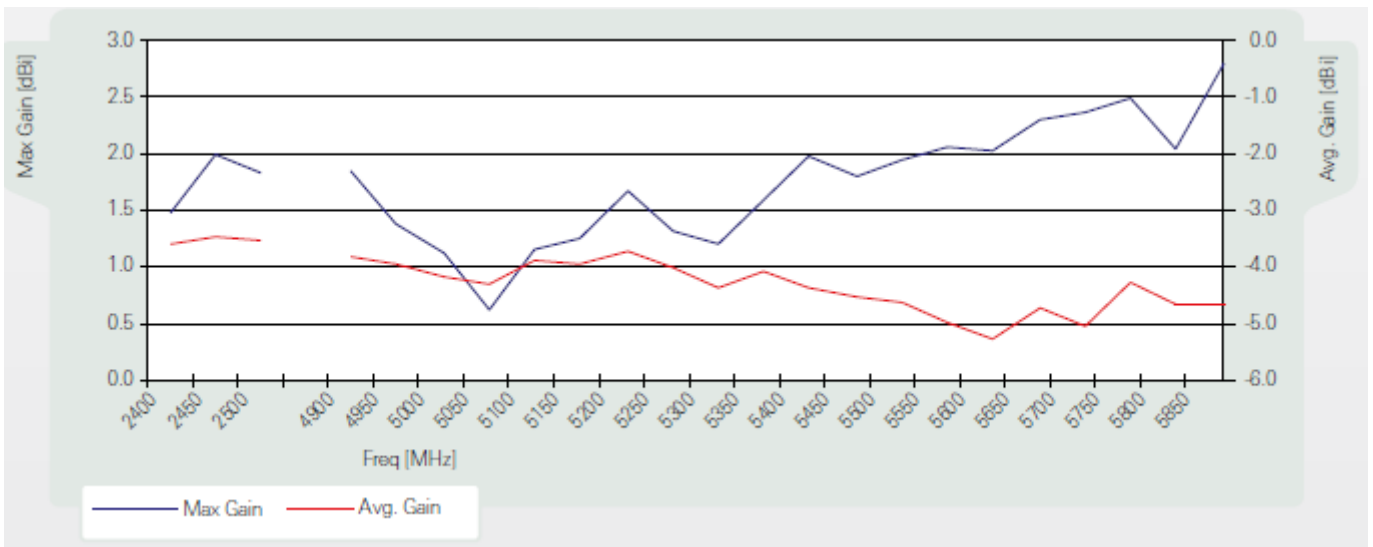
Pulse Part Number CW3513

## Free Space Efficiency, Average and Maximum Gain

Total 3D Efficiency



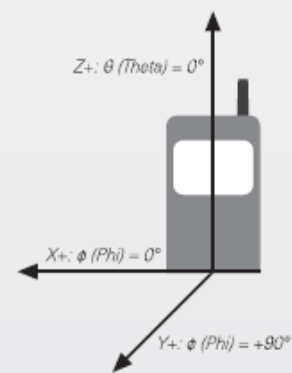
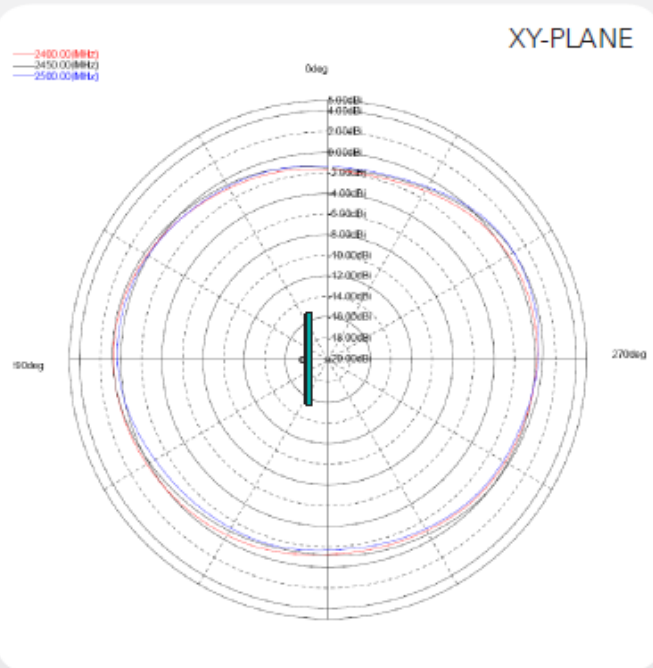
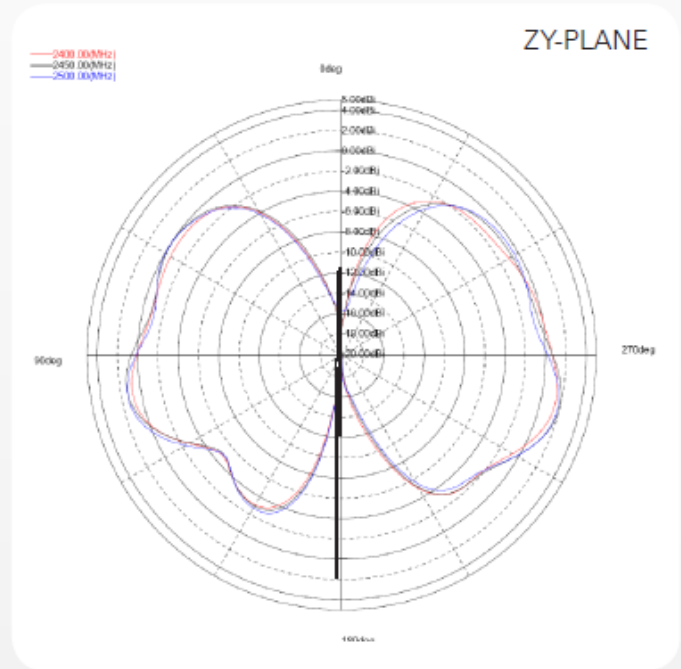
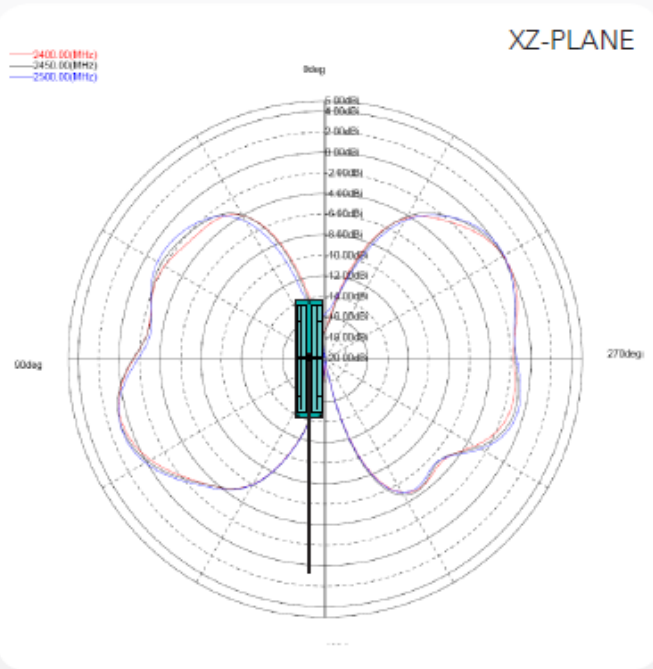
Average and Max Gain



# Wireless Antenna for 2.4 GHz and 5GHz Application

Pulse Part Number CW3513

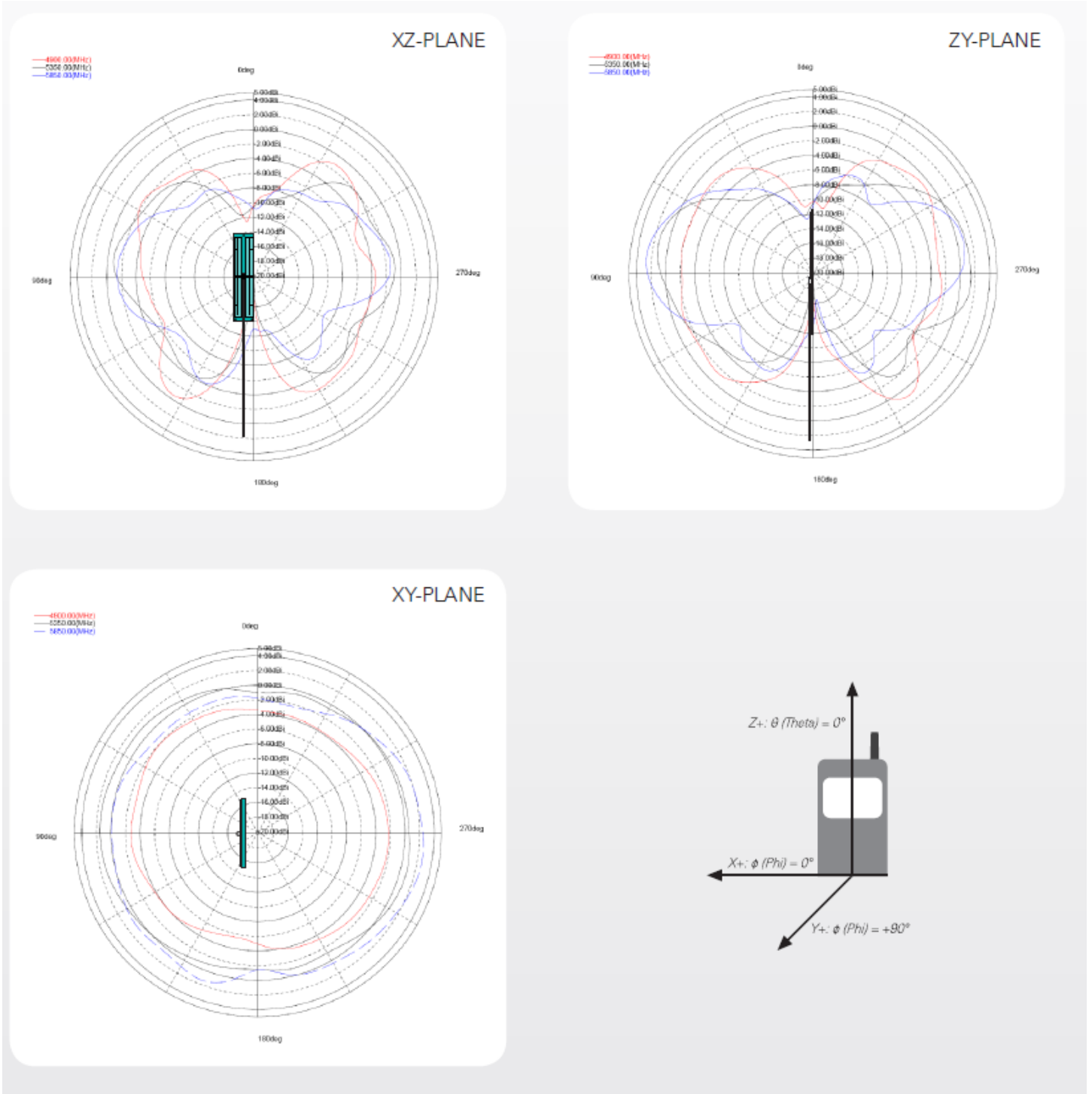
## 2400-2500 MHz Typical Free Space Radiation Patterns



# Wireless Antenna for 2.4 GHz and 5GHz Application

Pulse Part Number CW3513

## 4900-5850 MHz Typical Free Space Radiation Patterns



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