

## RBDM Multi-Element Antenna



The standard RFBMax Brick Antenna comes with 17 ft cable & SMA connector on 2x 5G/LTE, 17 ft cables & RPSMA on 3x WiFi and 17 Ft SMA on the 1xGNSS lines. Our “Brick” antenna is easy to install using the heavy-duty threaded stud mount which is 100% vandal proof and IP67 rated for year-round indoor or outdoor use. The super-efficient wireless technology built into these antennas allows for FAST access to the cellular network.



- 2x 617-960/1710-6000MHz
- 4G (LTE) / 5G-FR1 includes Band 71 (617-698 MHz)
- 3x 2400-2500/5150-5925 MHz Wifi
- 1x GNSS Active
- Omnidirectional radiation pattern; IP67
- Available in black or white
- Size: 202.3 x 88.5 x 45

Applications: 2G/3G/4G/5G radios. CBRS Band 42 and 48 (3.4-3.7GHz), Utility boxes, Vehicular use, Smart metering, Public safety IoT Devices.



WiFi



LTE



CUSTOMIZABLE



PUBLIC SAFETY



5G

### Part Numbers Configurator:

RBD/M	G	5	W	4/10/17	S,R,T	B/W
DM= Direct Mount MM= Mag Mount	GPS/ GNSS	5G	WiFi	Coax Length (feet)	Connectors (SMA, RPSMA,TNC)	Color (Black/White)

## ELECTRICAL DATA

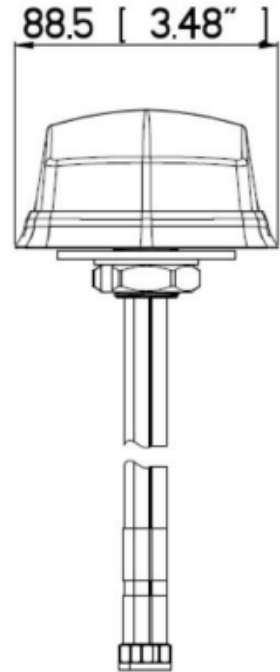
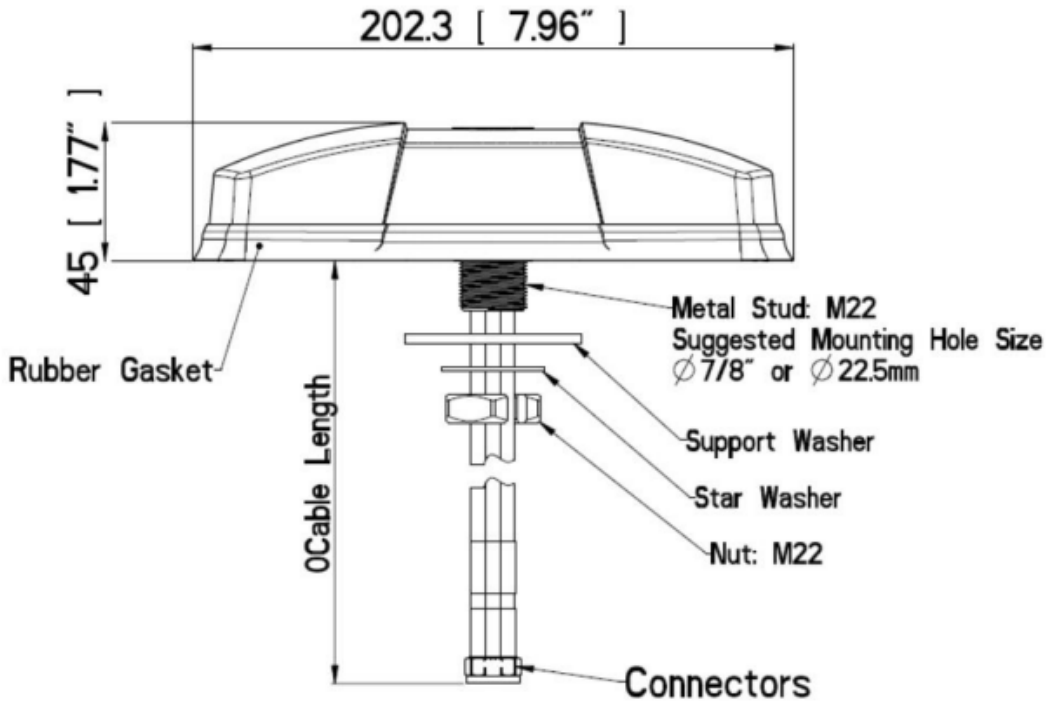
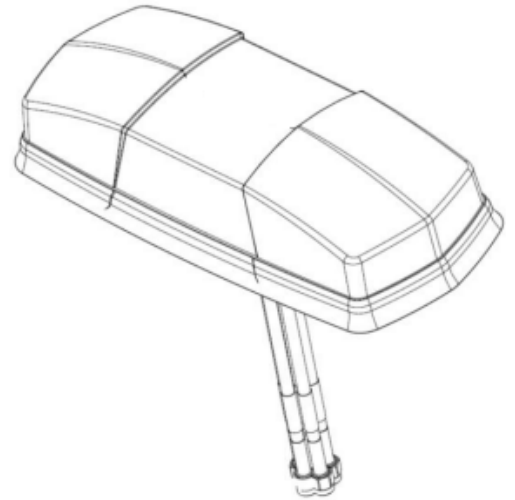
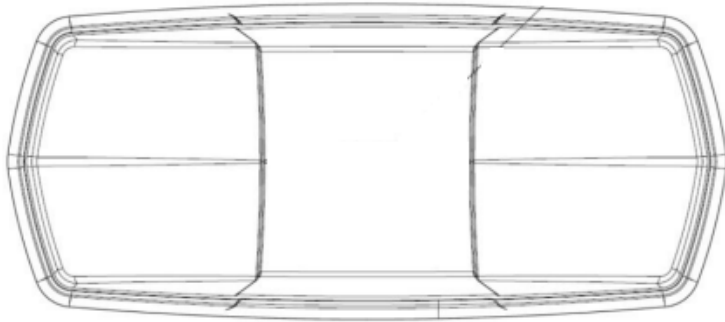
Frequency 5G-FR1/LTE	617-960MHz, 1710-6000MHz
Frequency Wifi	2400-2500MHz, 5150-5925MHz
Nominal Impedance	50
VSWR (617-960/1710-6000/2400-2500)	<2.2/2.2/2
Average peak gain (617-960/1710-6000/2400-2500/5150-5925)	3.3/5.2/5.4/6.3 dBi
GPS Antenna Frequency	1561.09832.046MHz/ 1575.4231.023MHz/ 1602.562534MHz
Out of Band Rejection (617/910/1710/6000/2400/2700 MHz)	> 70/65/60/60/65/65 dB
Operating Voltage	3.3 - 5 Vdc
Polarization	Vertical
Noise Figure	< 2.4 dB

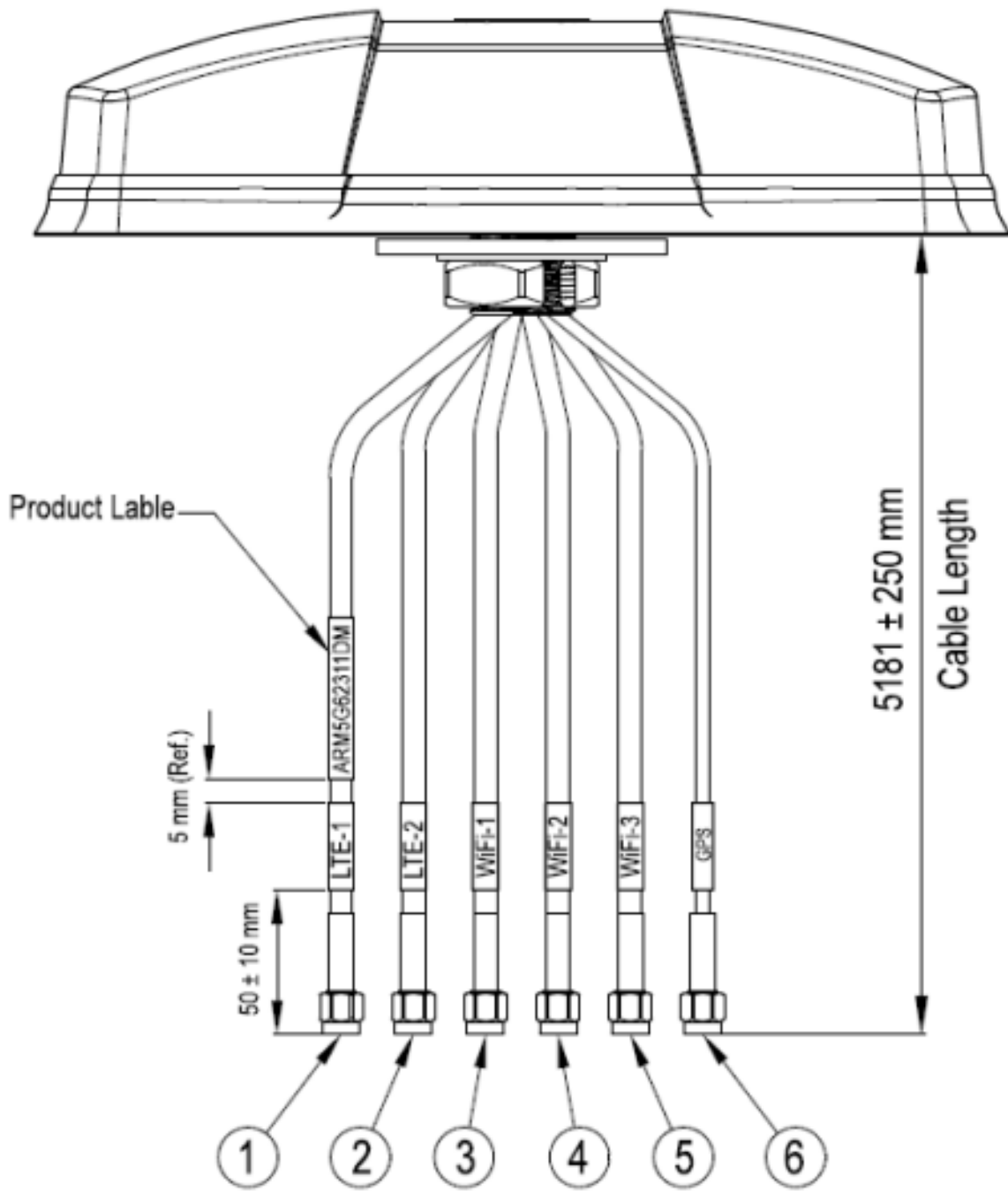
## MECHANICAL DATA

Overall Length	202.3mm X 88.5mm X 45mm
Weight	1.15 kg
Antenna Color/Material	Black or White

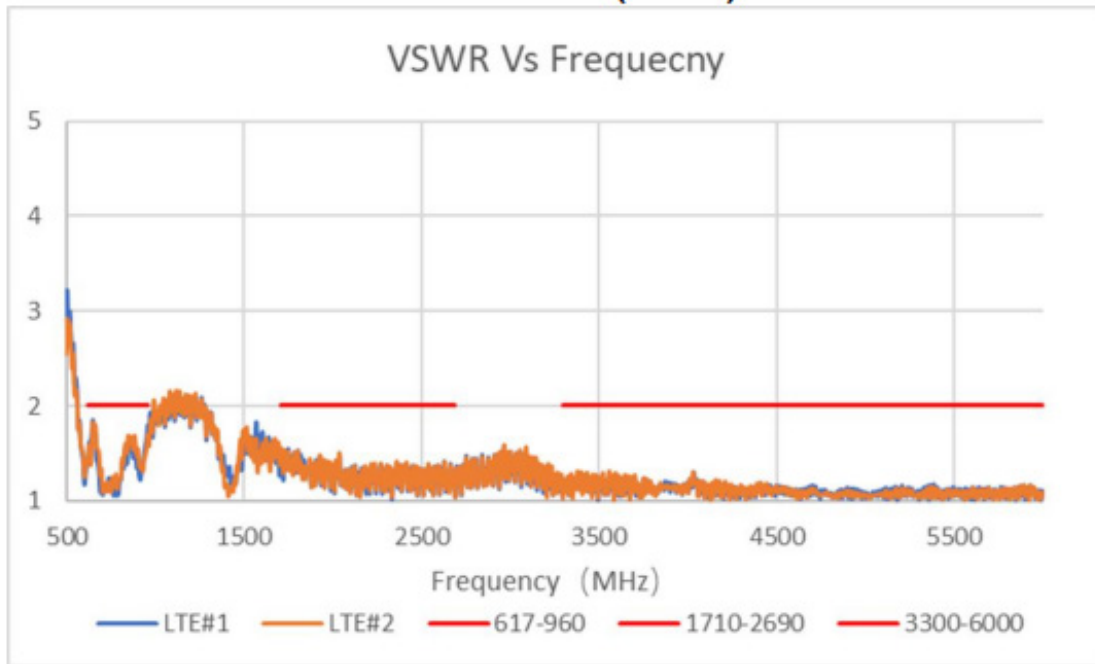
## ENVIRONMENTAL DATA

Operating Temperature	-40° to +85° C
Storage Temperature	-40° to 85° C
Ingress Protection	IP67
RoHS-6	YES

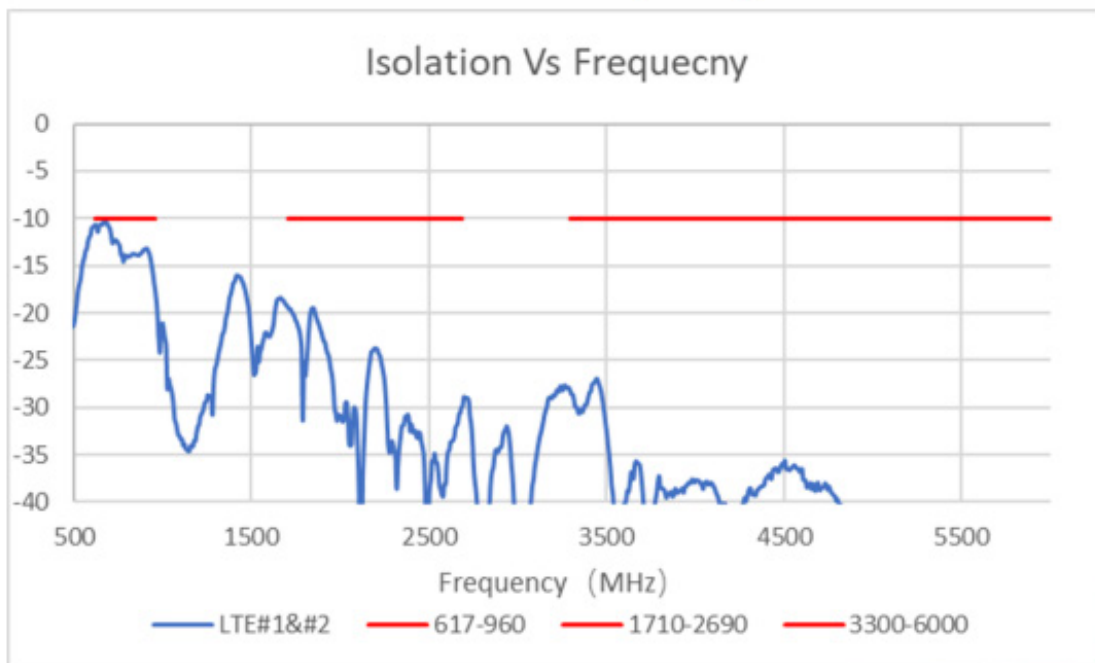




## VSWR (LTE)

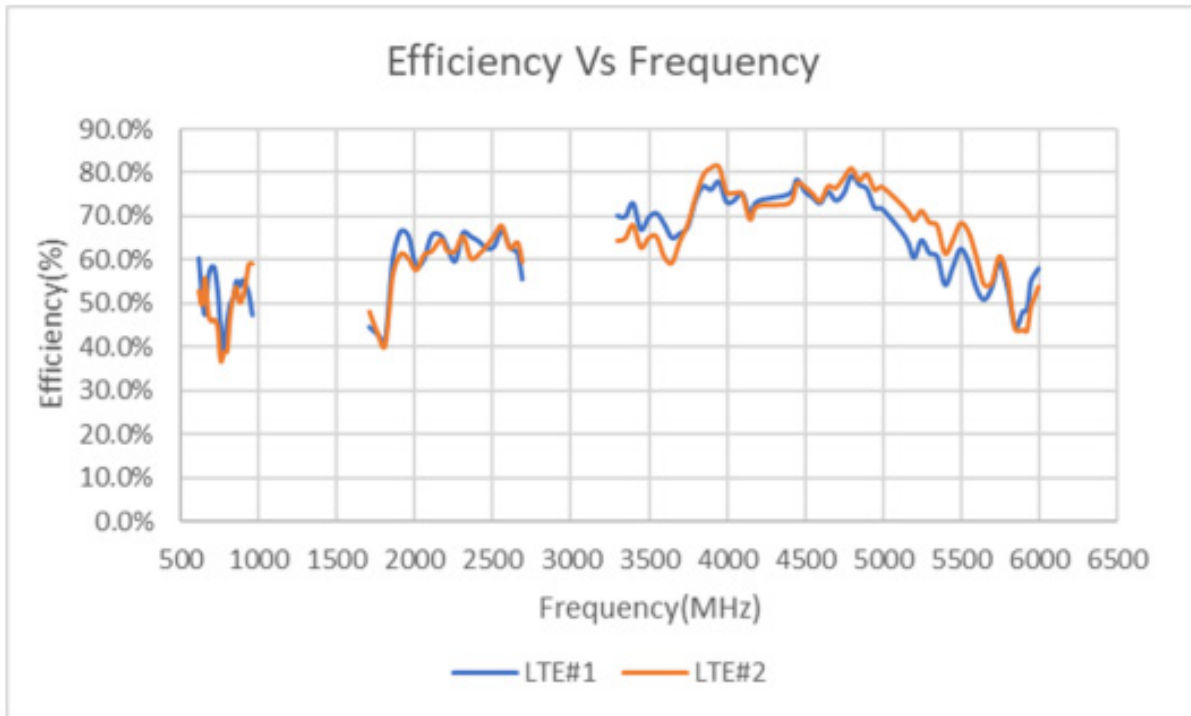


## Isolation (LTE)

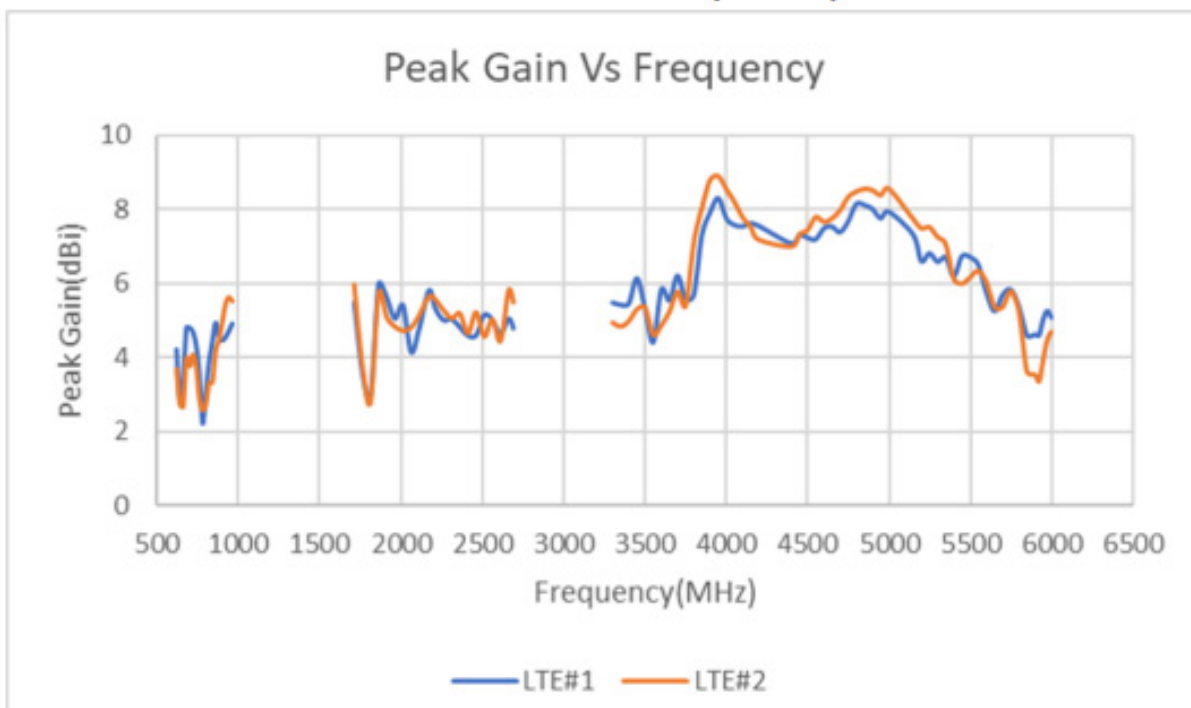


Note : Antenna tested with 5m cable on 500mm (dia) ground plane

# Radiation Efficiency (LTE)

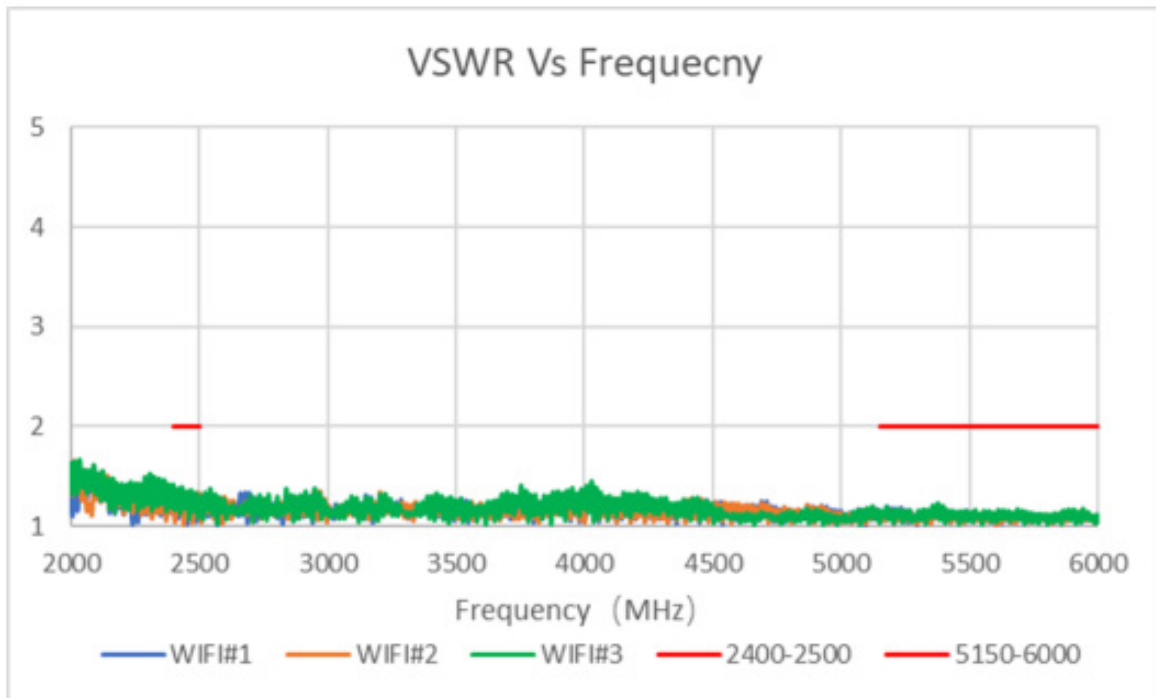


# Peak Gain (LTE)

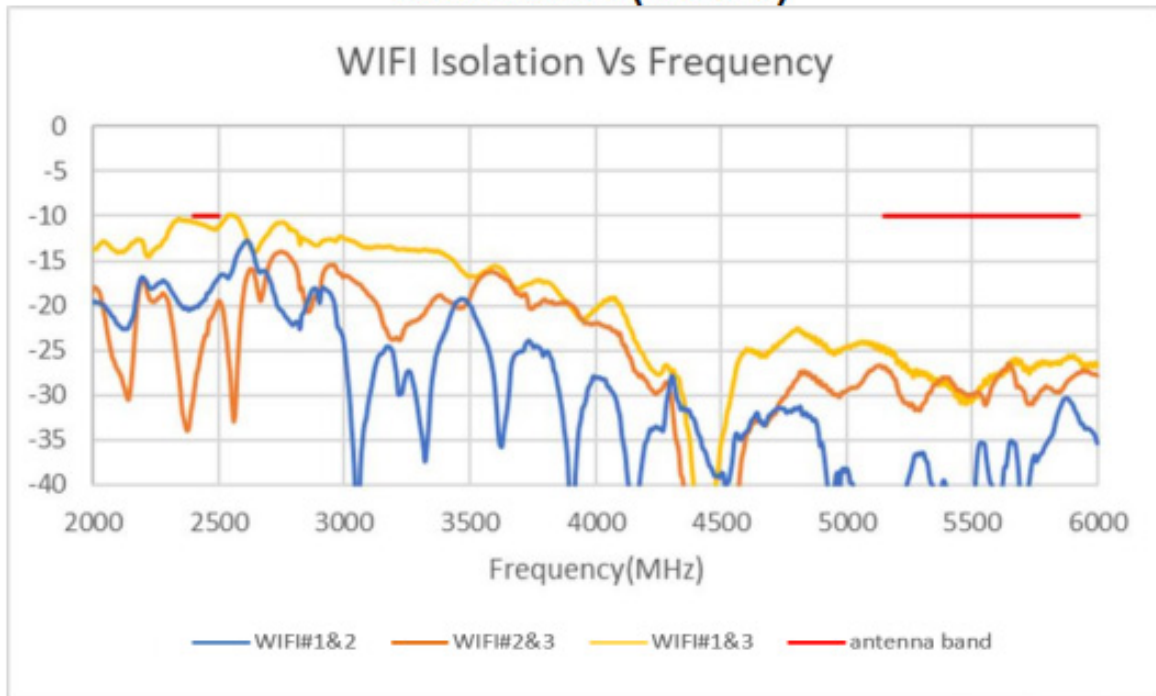


Note : Antenna tested with 1ft(304.8mm) cable on 500mm (dia) ground plane

# VSWR (WIFI)

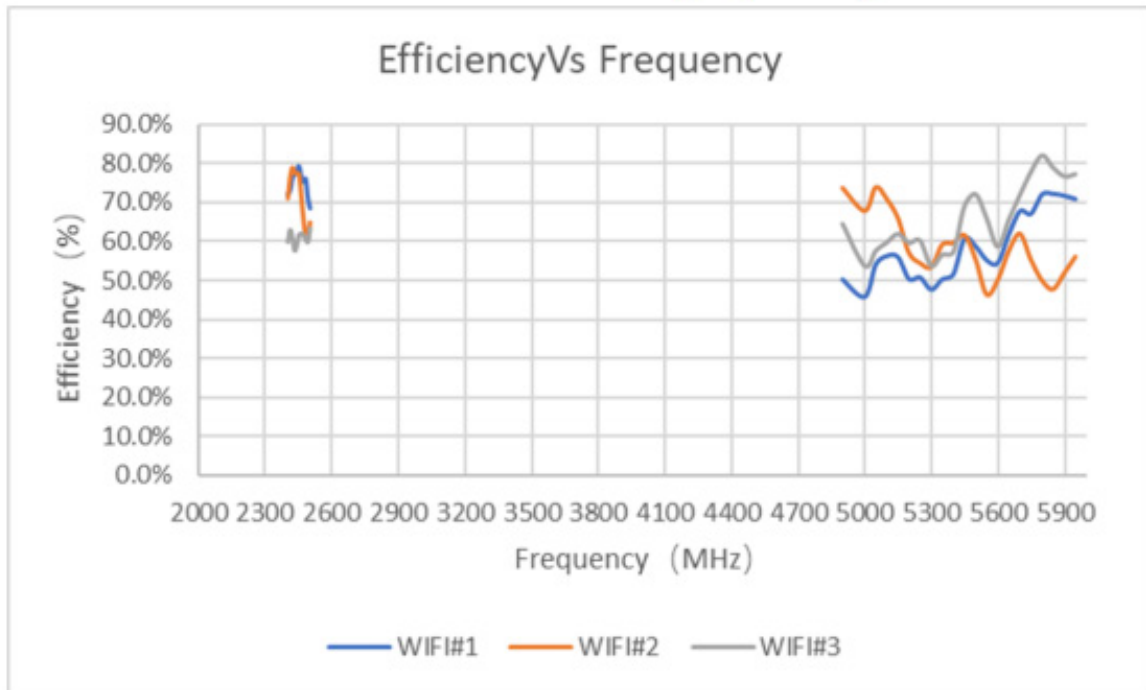


# Isolation (WIFI)

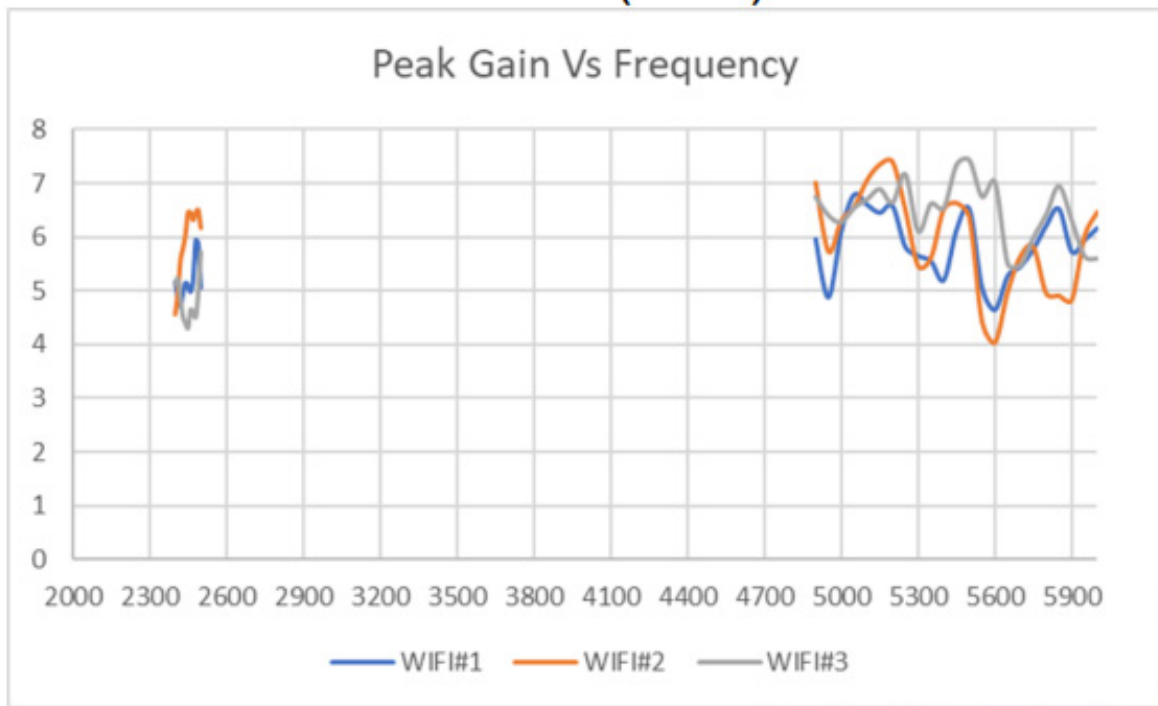


Note : Antenna tested with 5m cable on 500mm (dia) ground plane

# Radiation Efficiency (WIFI)

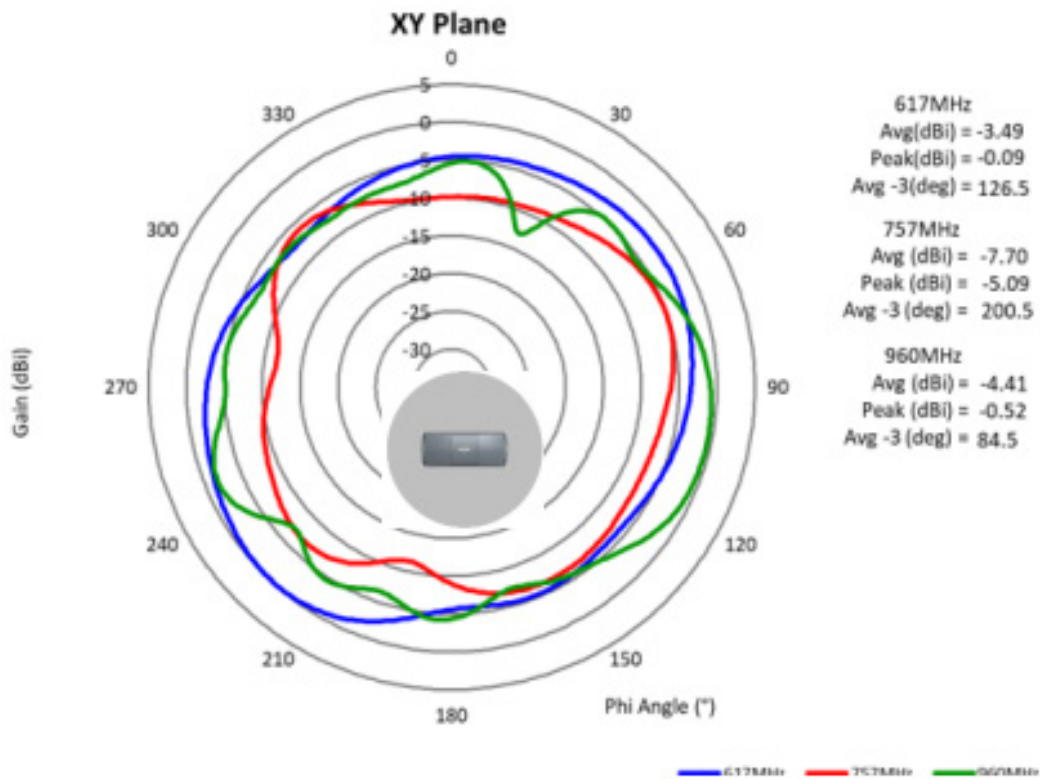


# Peak Gain (WIFI)

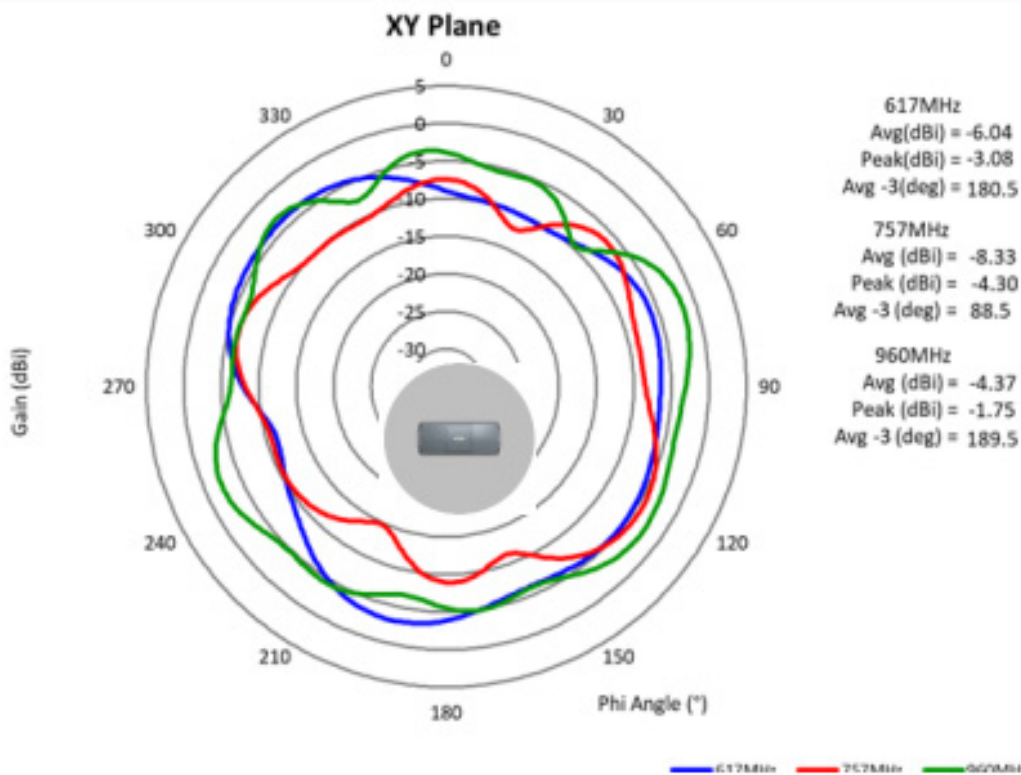


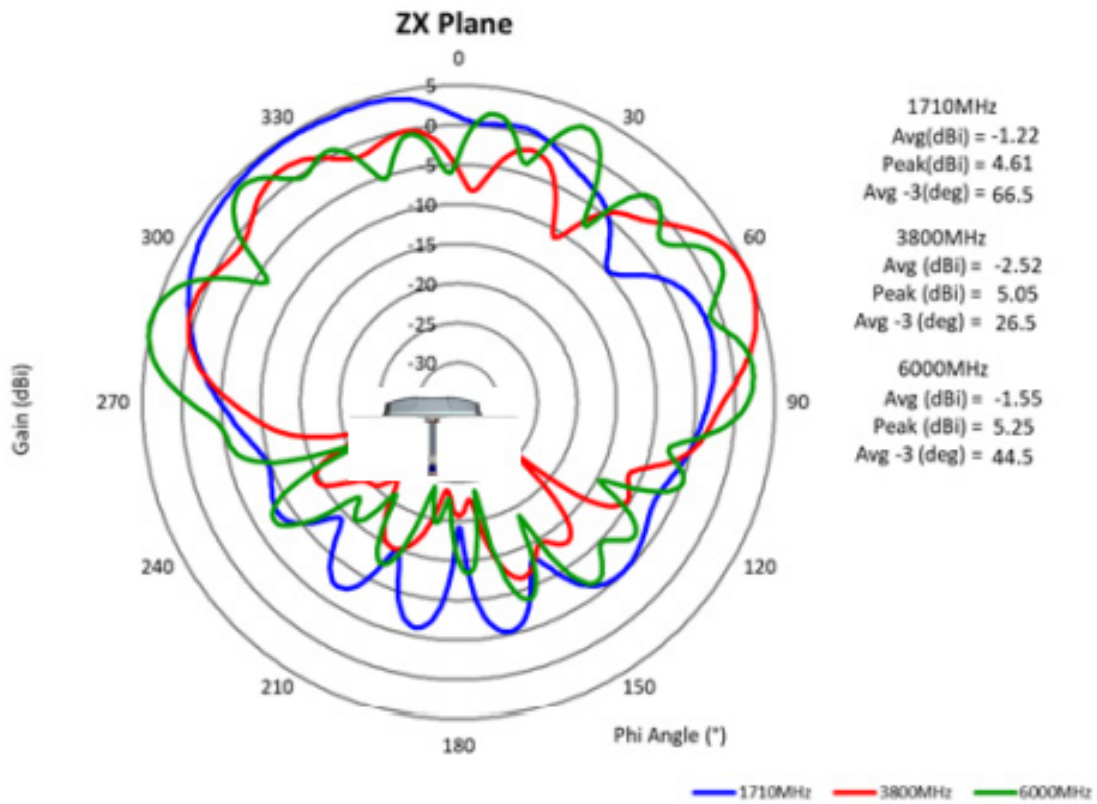
Note : Antenna tested with 1ft(304.8mm) cable on 500mm (dia) ground plane



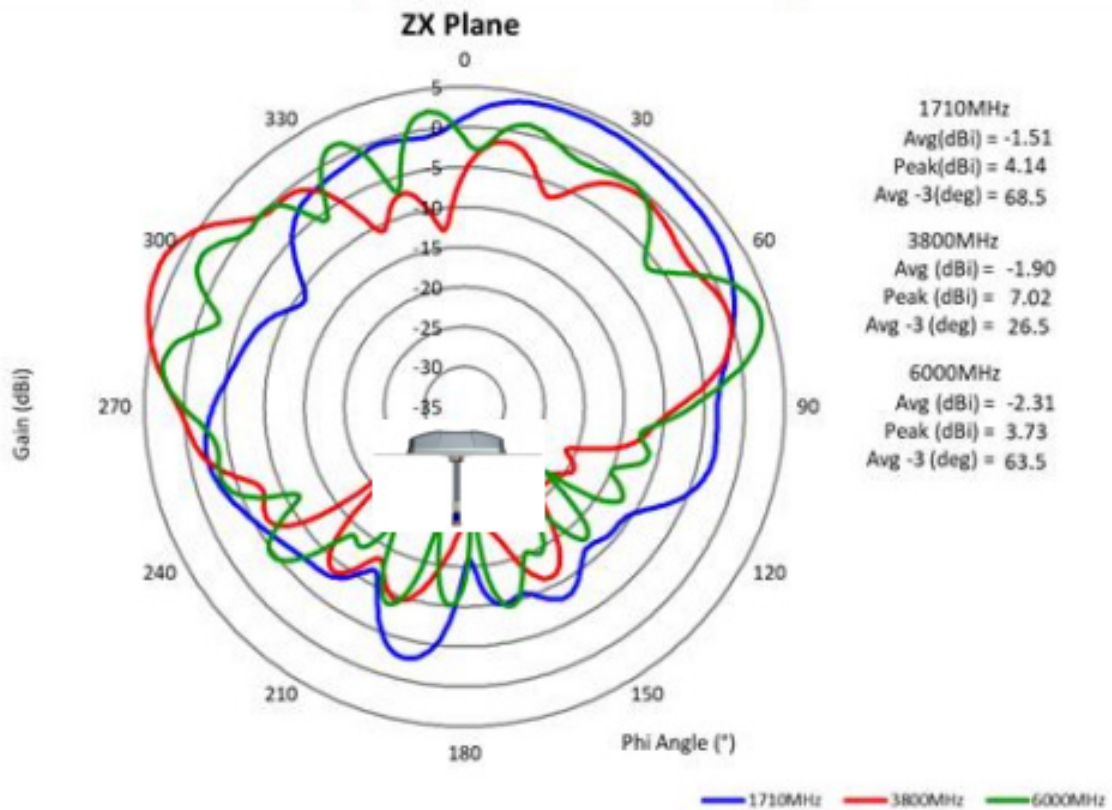


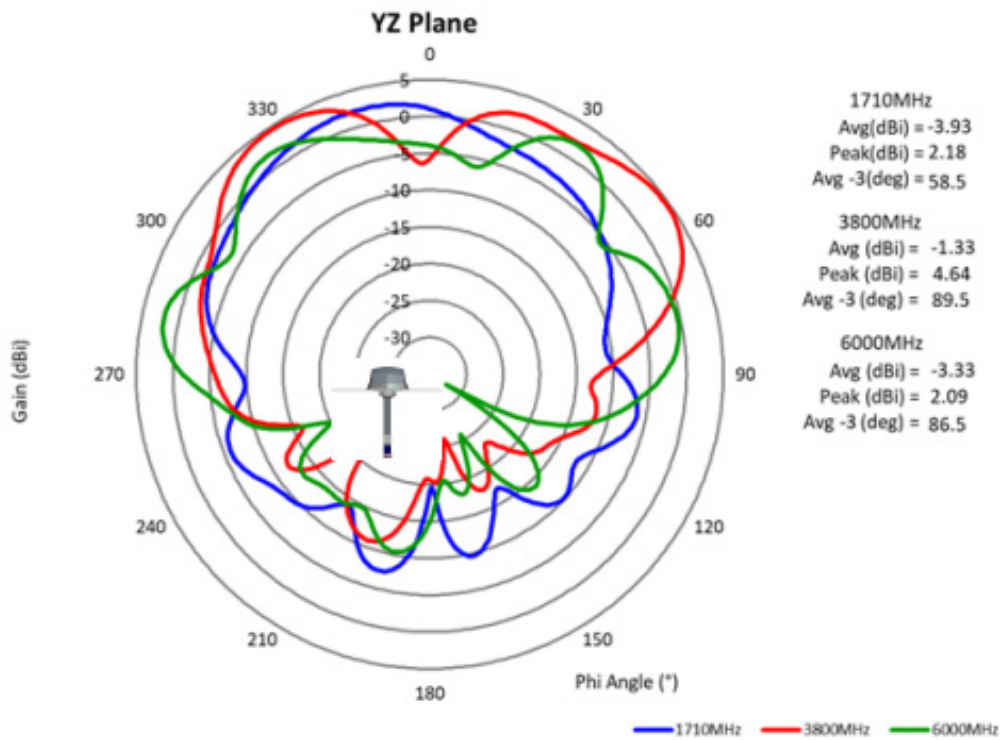
## LTE1 XY plane radiation pattern



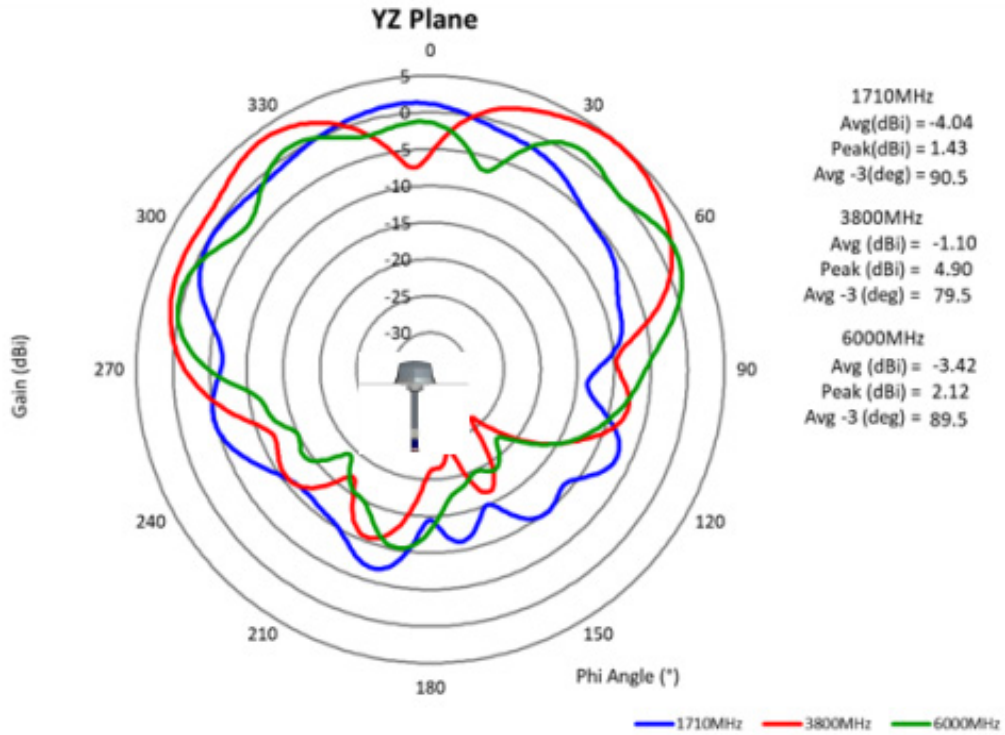


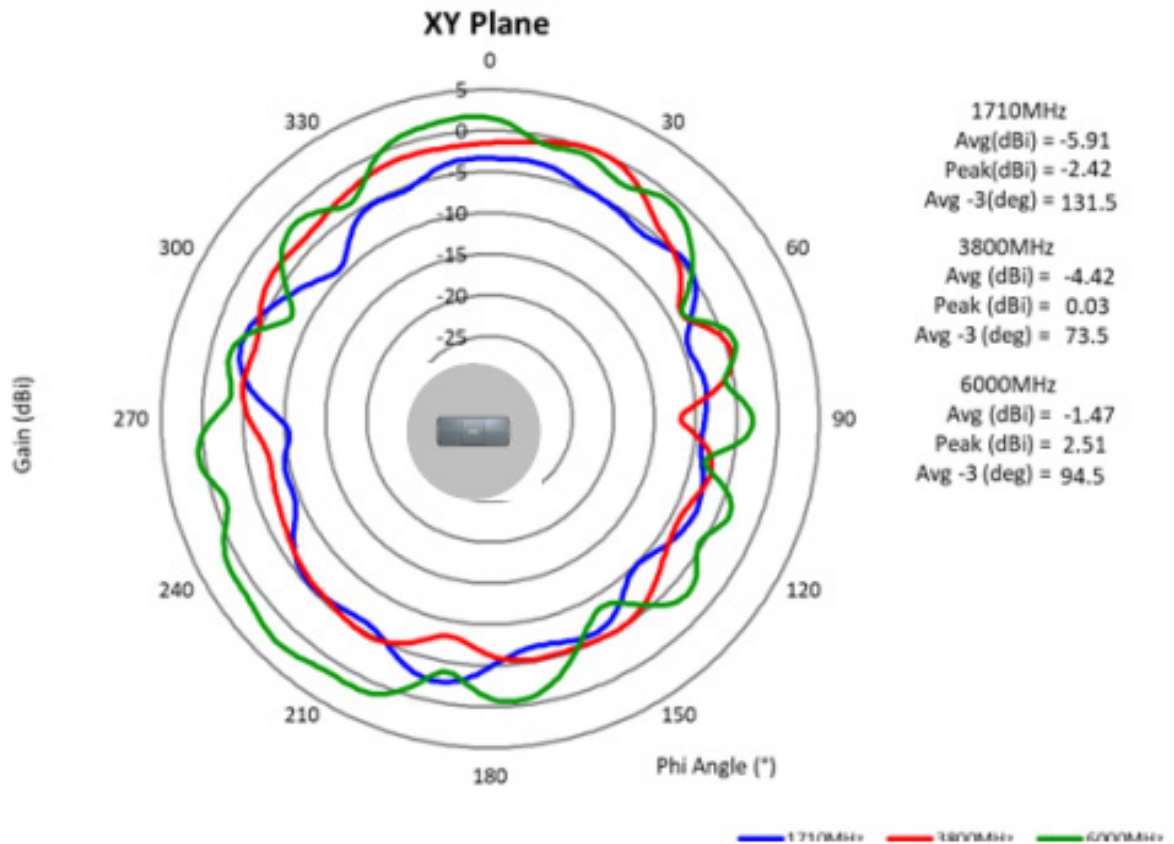
## LTE1 ZX plane radiation pattern



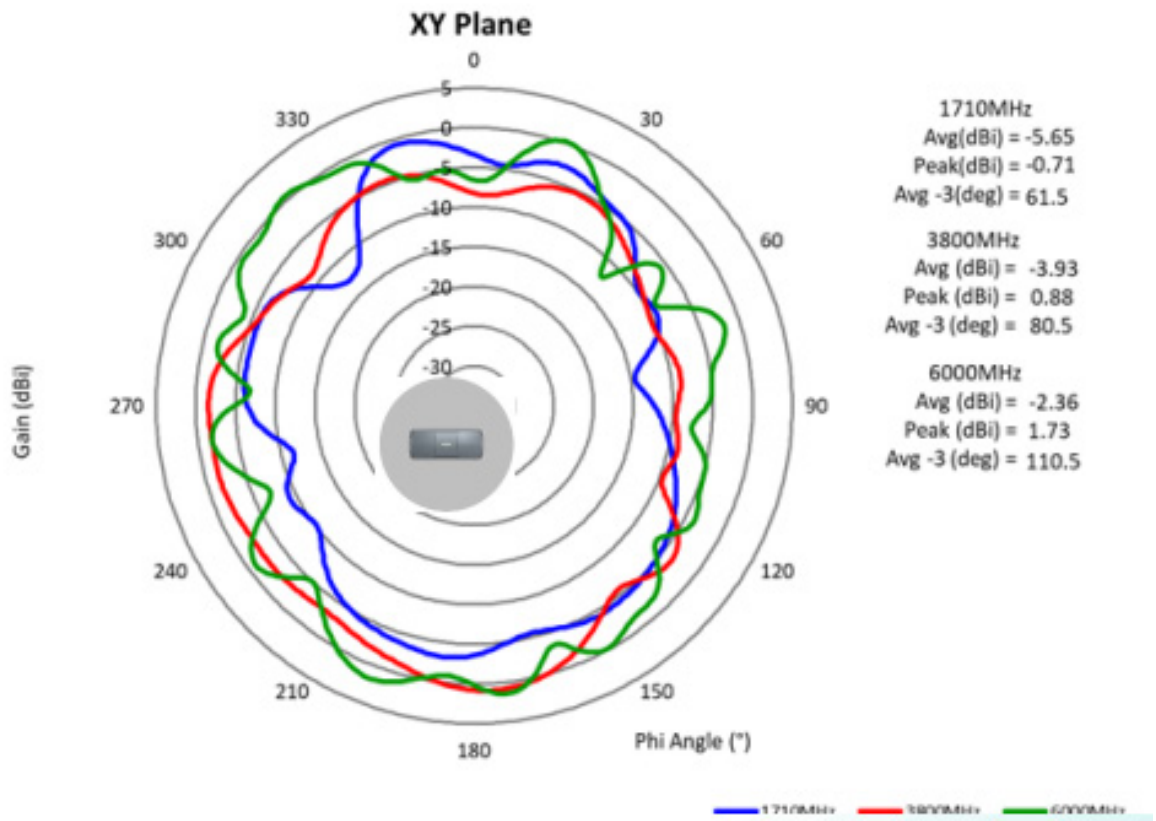


## LTE1 YZ plane radiation pattern

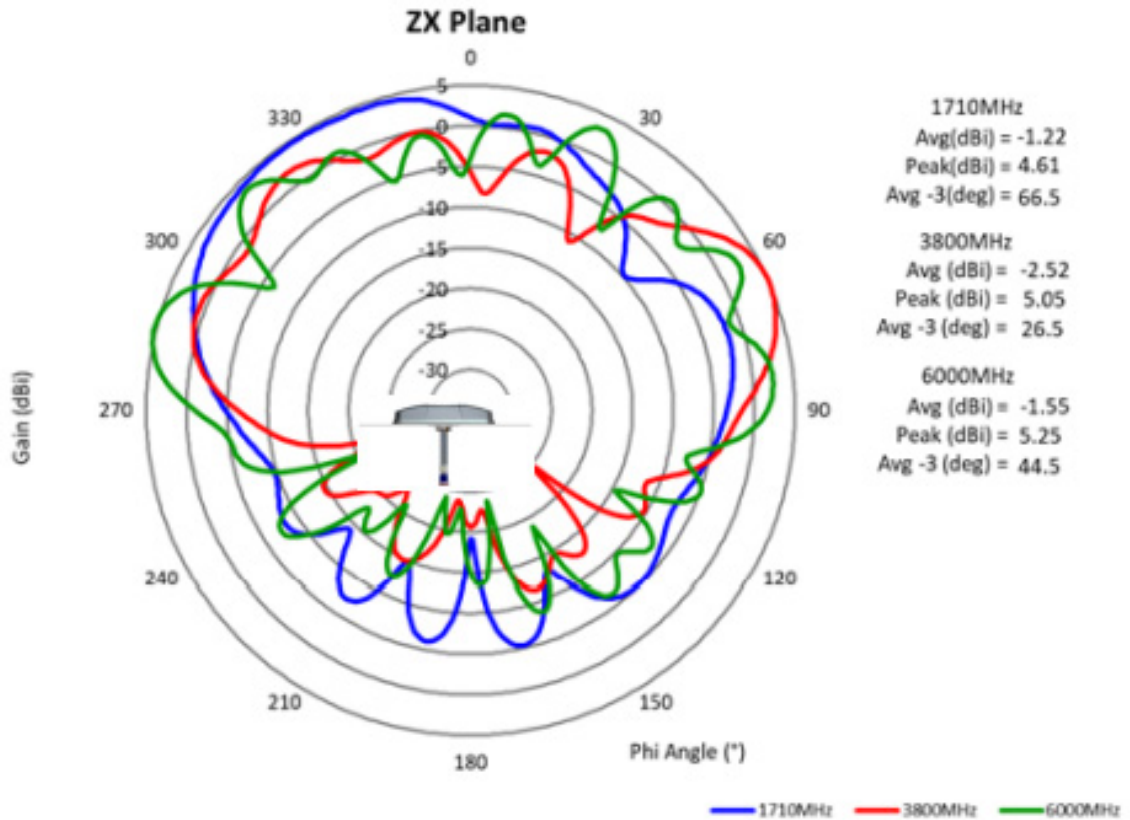




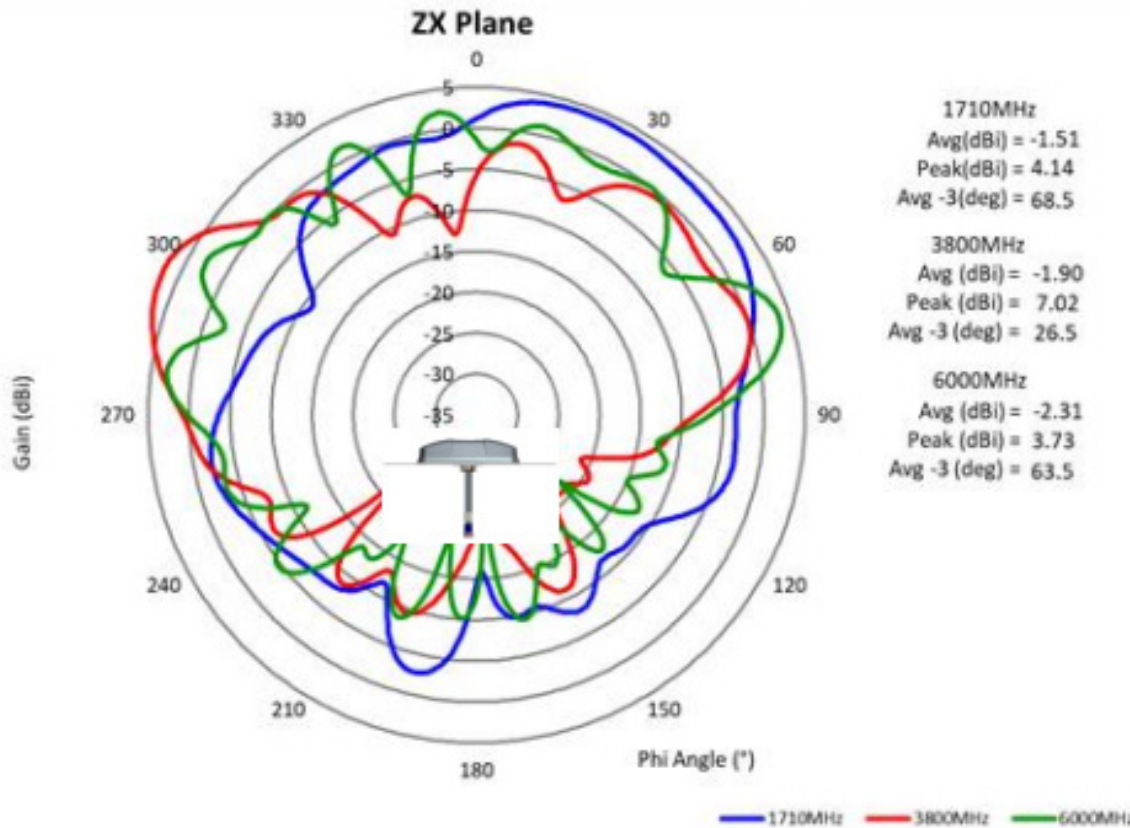
## LTE1 XY plane radiation pattern

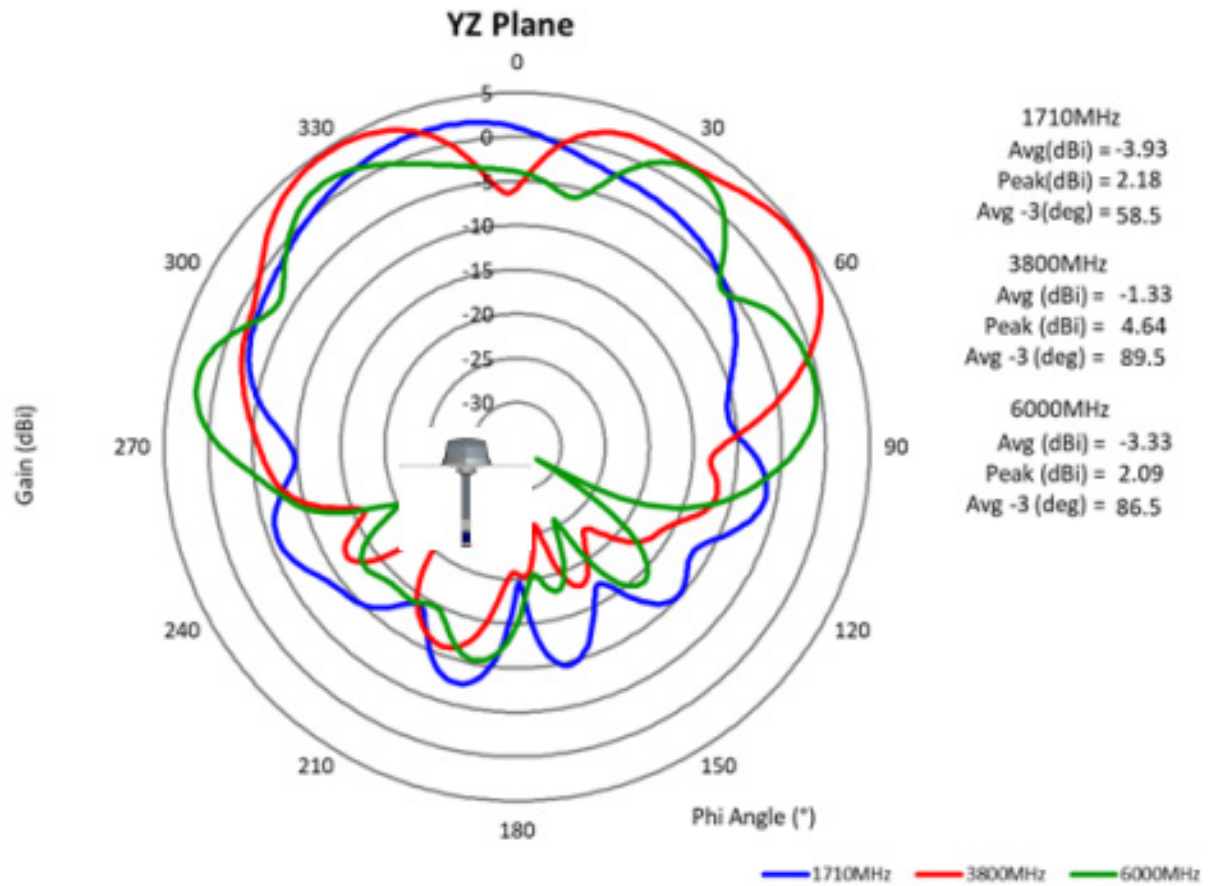




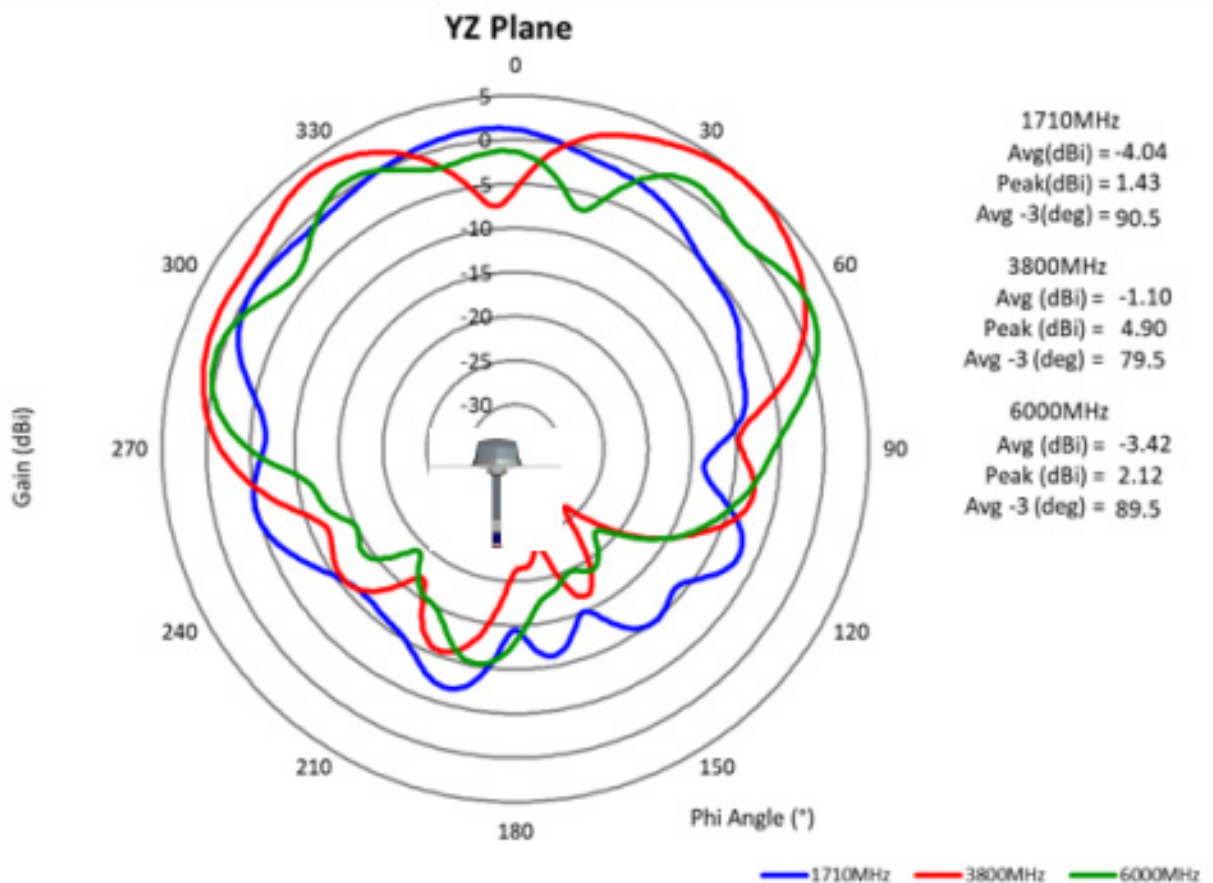


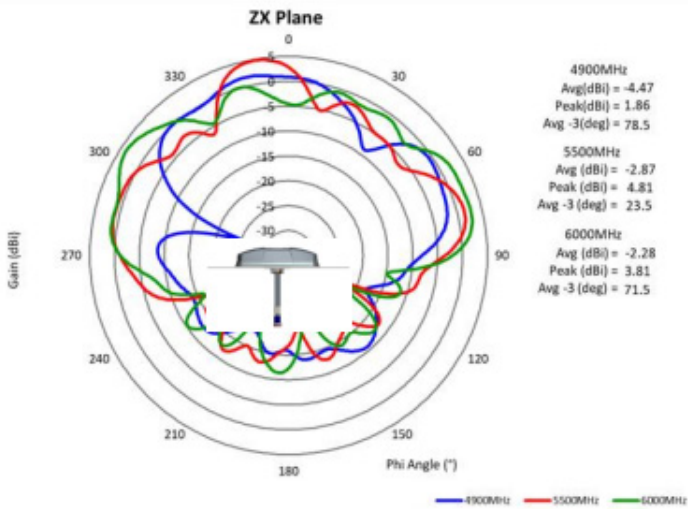
## LTE1 ZX plane radiation pattern



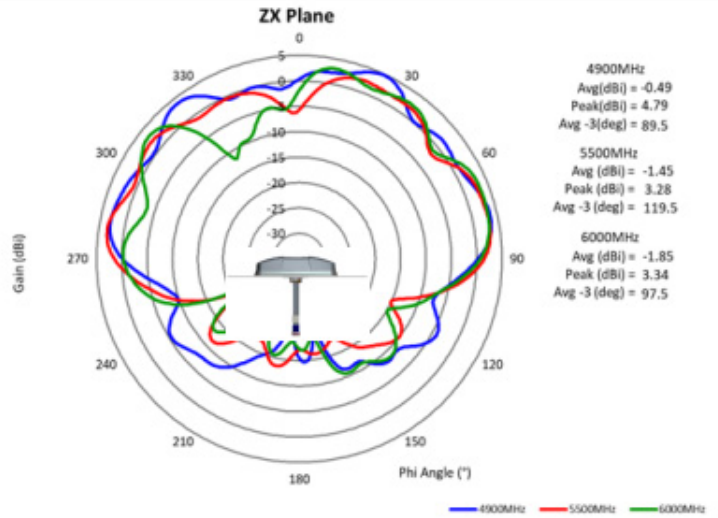


## LTE1 YZ plane radiation pattern

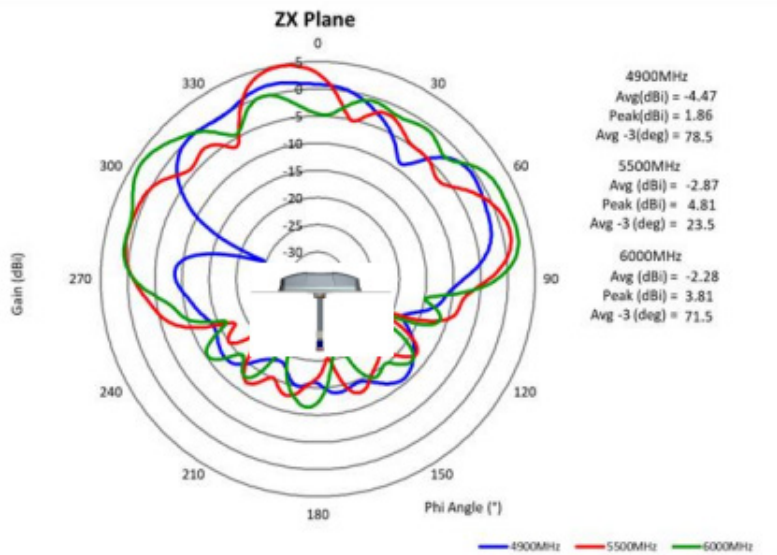




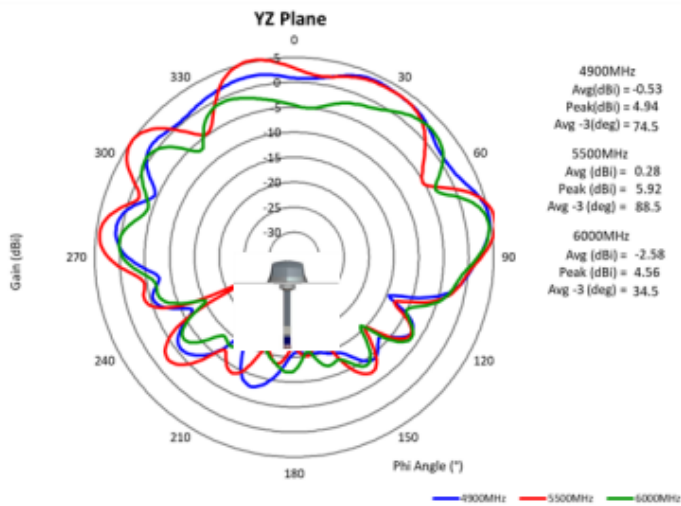
WiFi1 ZX plane radiation pattern



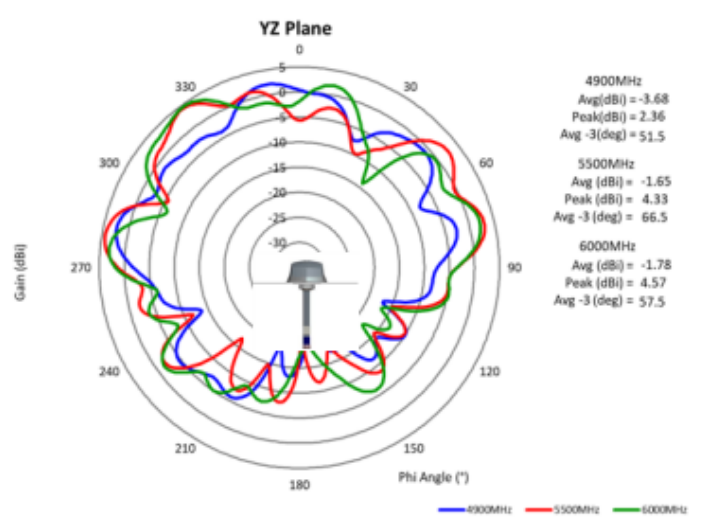
WiFi2 ZX plane radiation pattern



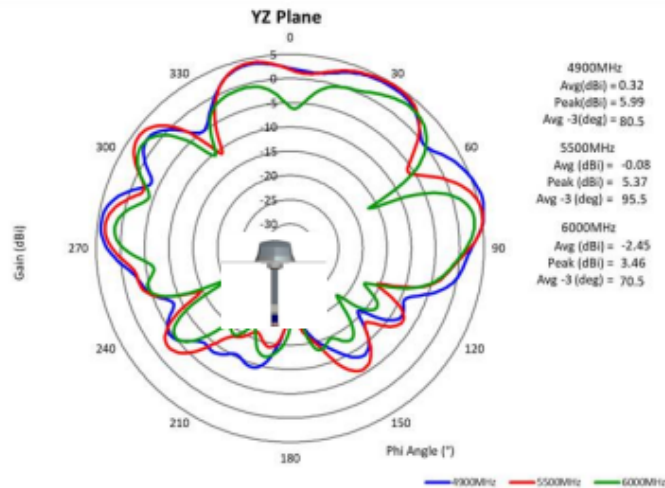
WiFi3 ZX plane radiation pattern



WiFi1 YZ plane radiation pattern

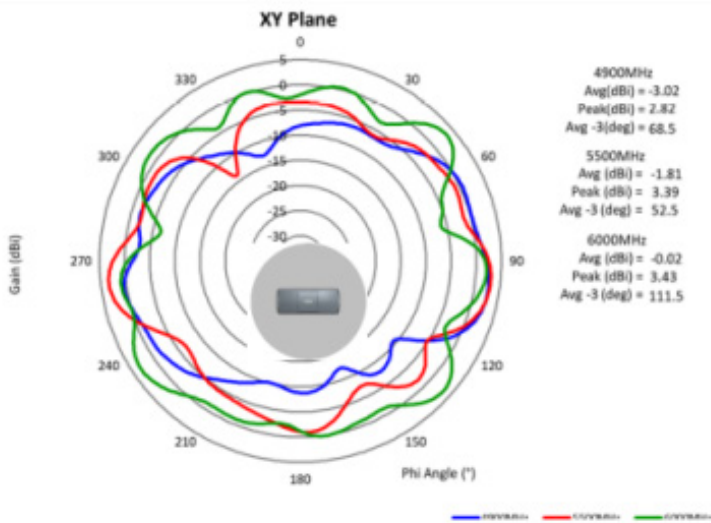


WiFi2 YZ plane radiation pattern

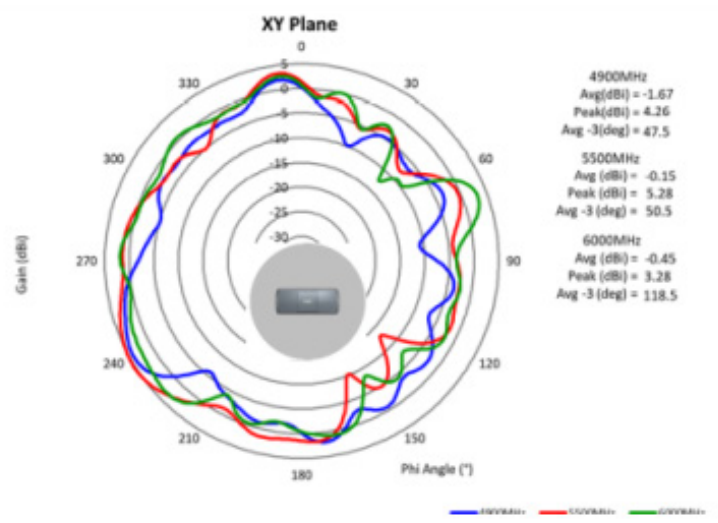


WiFi3 YZ plane radiation pattern

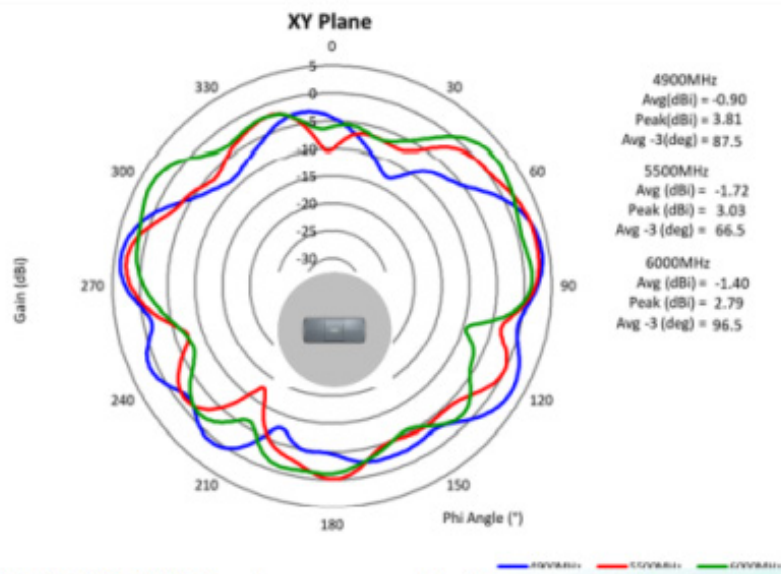




WiFi1 XY plane radiation pattern

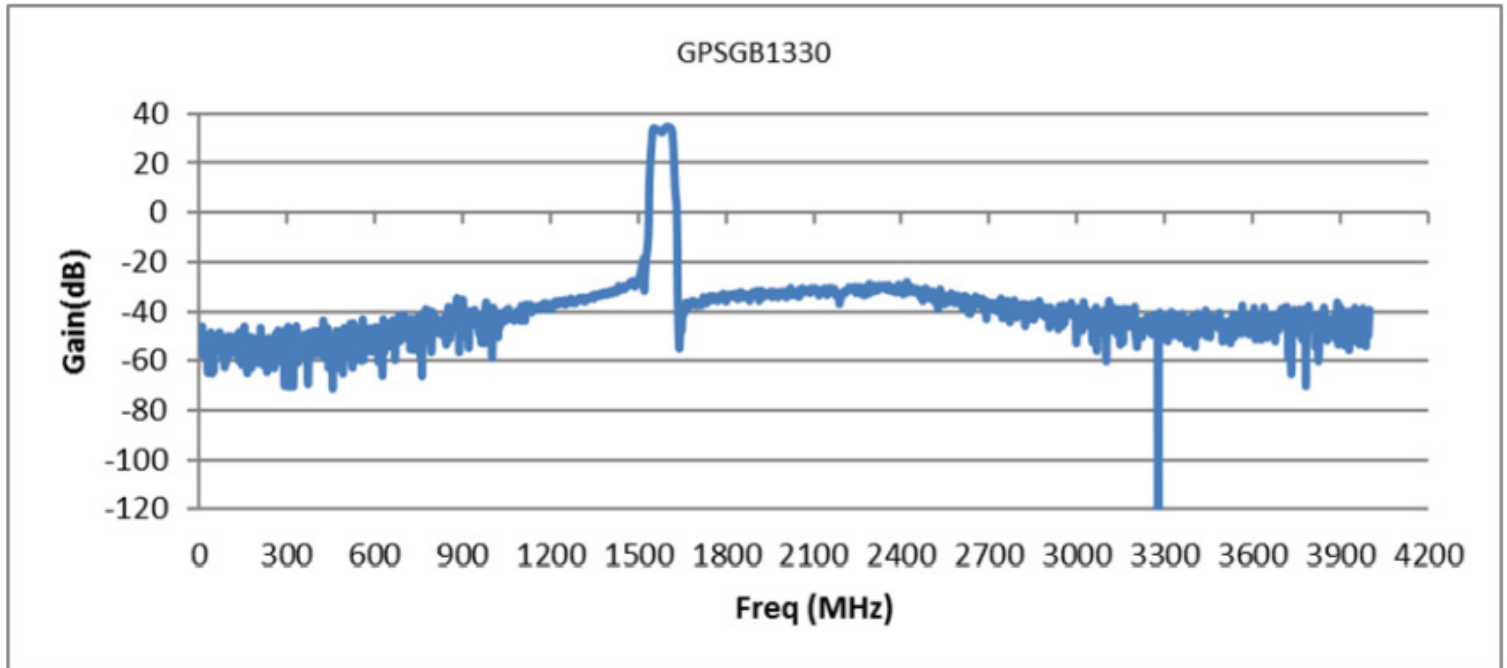


WiFi2 XY plane radiation pattern

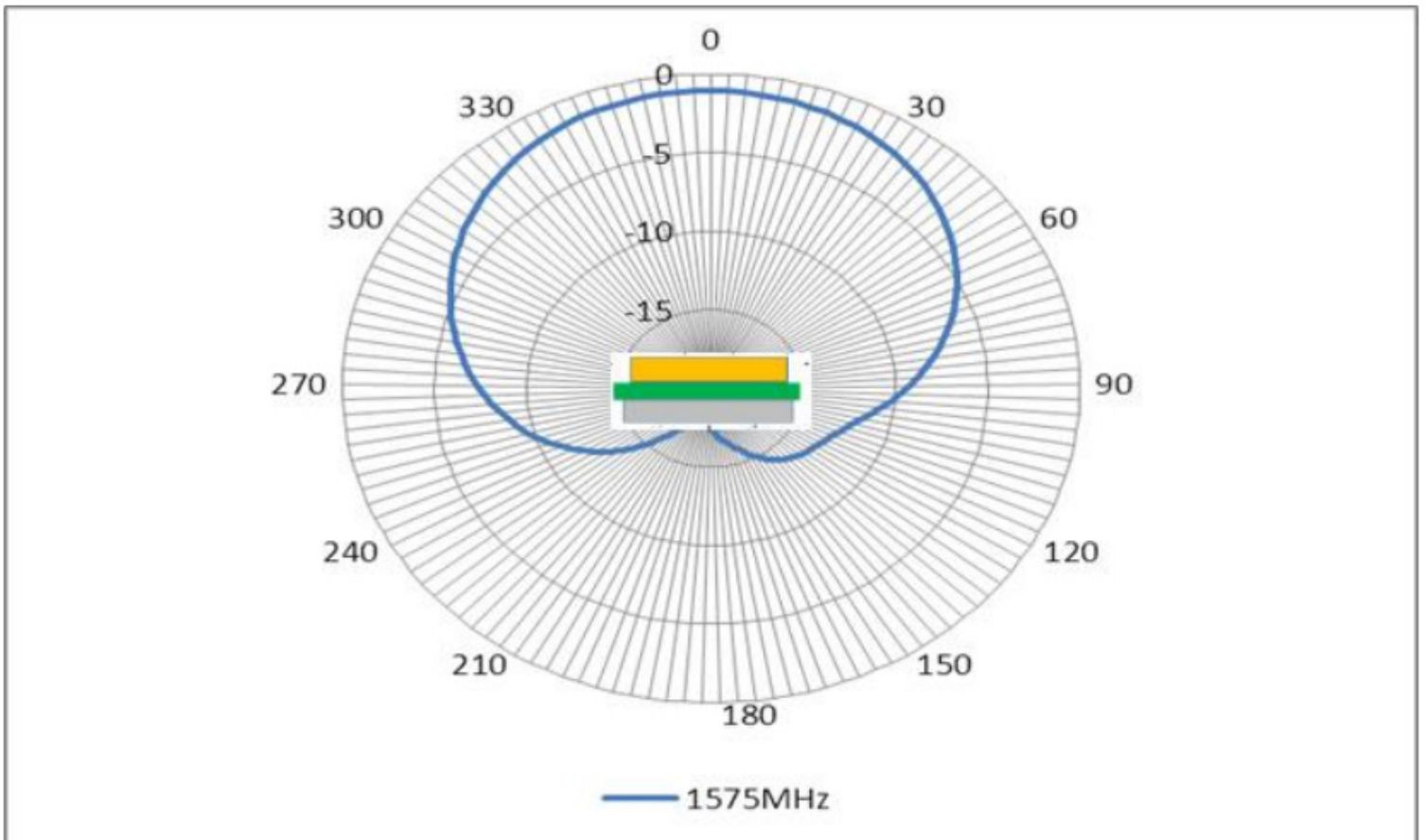


WiFi3 XY plane radiation pattern

# LNA Gain and out-of-band rejection



# Radiation Pattern (70mm x 70mm ground plane ) GPS & Galileo



# Radiation Pattern (70mm x 70mm ground plane ) GLONASS

