

Antenna Specification

Frequency range and operation:

WiFi Antennas: 2.4 to 2.48 GHz and 5.15 to 5.85 GHz,

Bluetooth Antenna: 2.4 to 2.48 GHz,

ZigBee Antenna: 2.4 to 2.48 GHz,

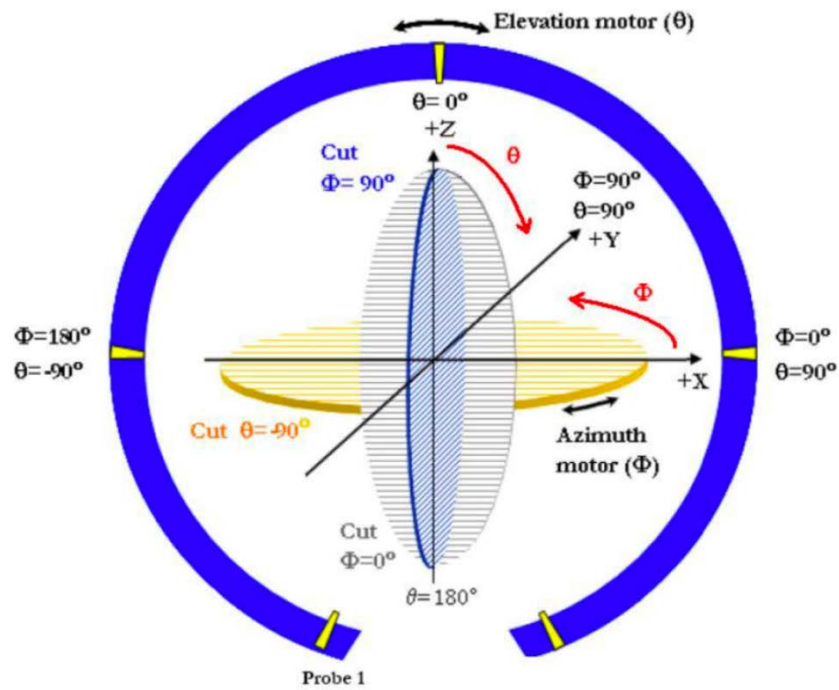
Antenna Types:

WiFi0 - Inverted L Antenna (ILA) which is a trace antenna on MLB

WiFi1 - Inverted L Antenna (ILA) which is a trace antenna on MLB

BT - Inverted F Antenna (IFA) which is a trace antenna on MLB

ZigBee – Dipole type on a separate PCB which is connect using coaxial cable connected to MLB



BT Antenna Gain

Frequency	Peak Gain
2400	2.75
2440.00	2.75
2480.00	3

ZB Antenna Gain

Frequency	Peak Gain
2400.00	4
2440.00	4
2480.00	4

WiFi 0 Antenna Gain

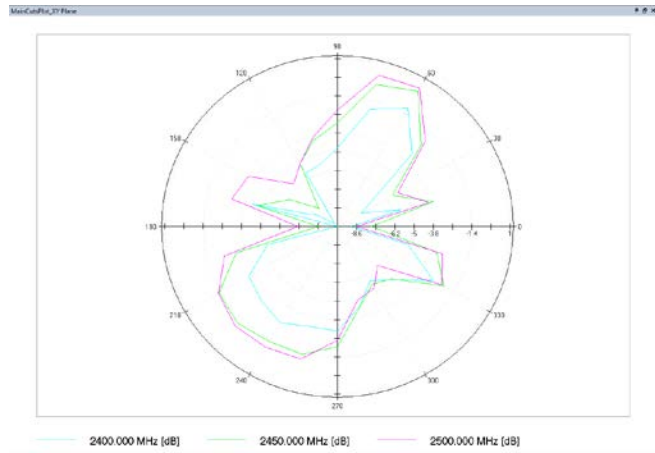
Frequency	Peak Gain
2400.00	3
2440.00	3
2480.00	3
5000.00	5.8
5200.00	5.8
5400.00	6
5500.00	6
5600.00	6
5700.00	5.9
5800.00	6
5900.00	6

WiFi 1 Antenna Gain

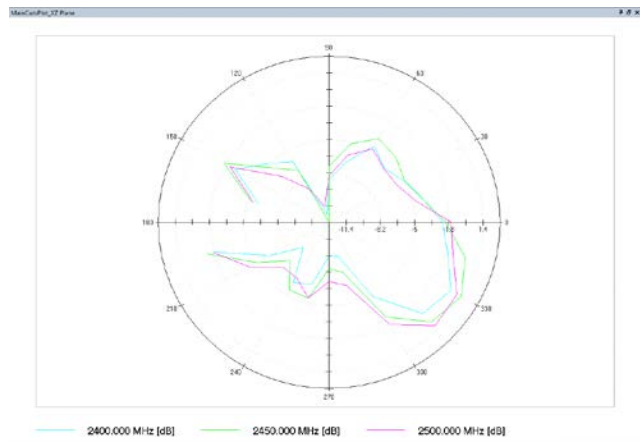
Frequency	Peak Gain
2400.00	2.9
2440.00	3
2480.00	2.9
5000.00	5.9
5200.00	6
5400.00	6
5500.00	6
5600.00	6
5700.00	6
5800.00	6
5900.00	6

BT Antenna Patterns

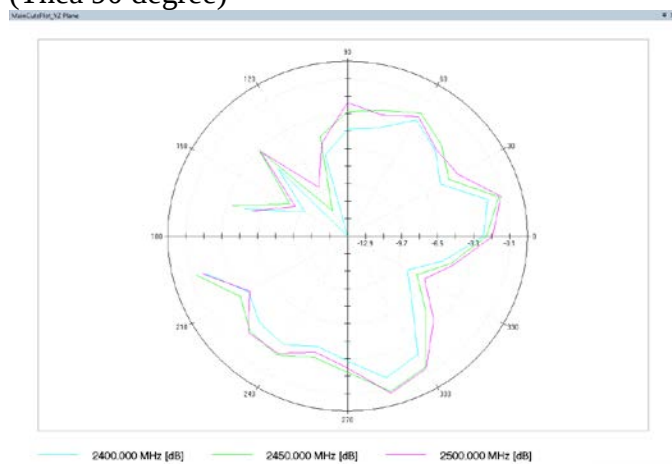
(Phi 0 degree)



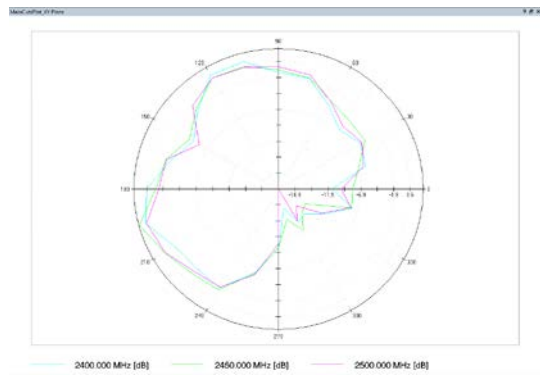
(Phi 90 degree)



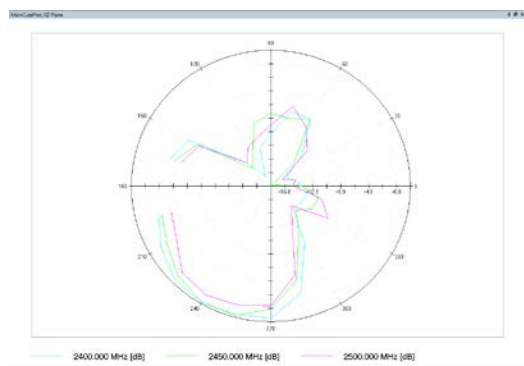
(Thea 90 degree)



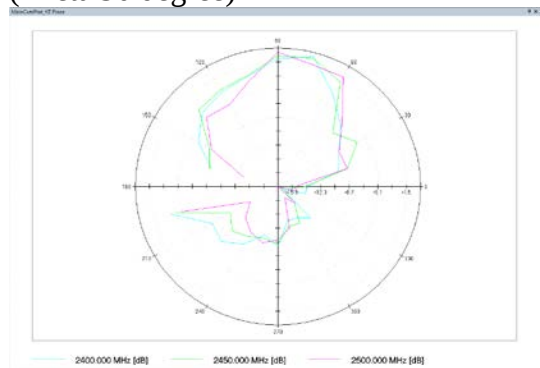
ZB antenna patterns
(Phi 0 degree)



(Phi 90 degree)

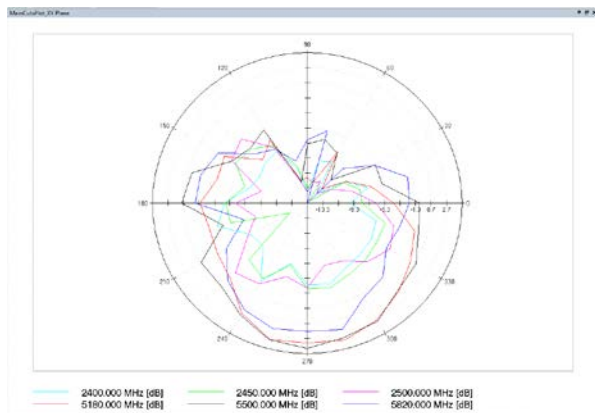


(Theta 90 degree)

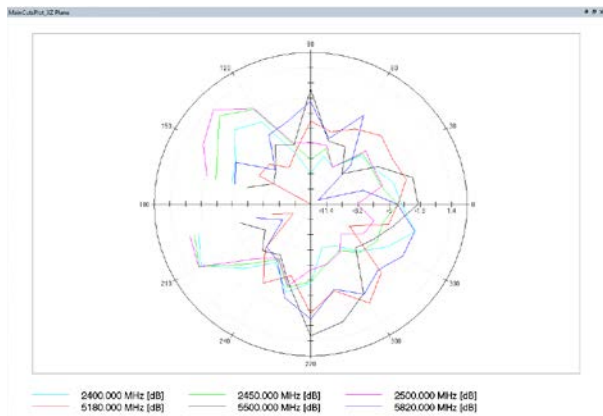


Wi-Fi 0 Patterns

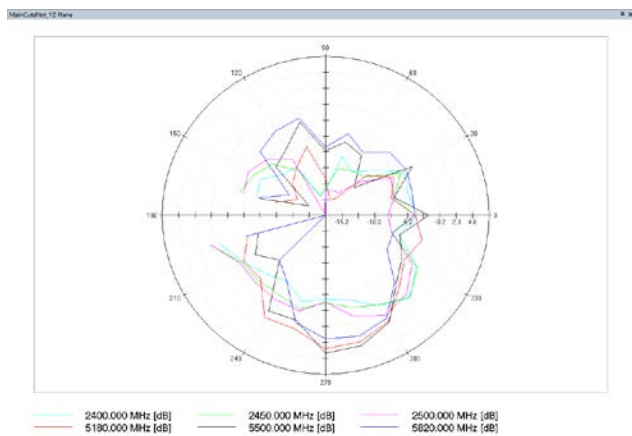
(Phi 0 degree)



(Phi 90 degree)

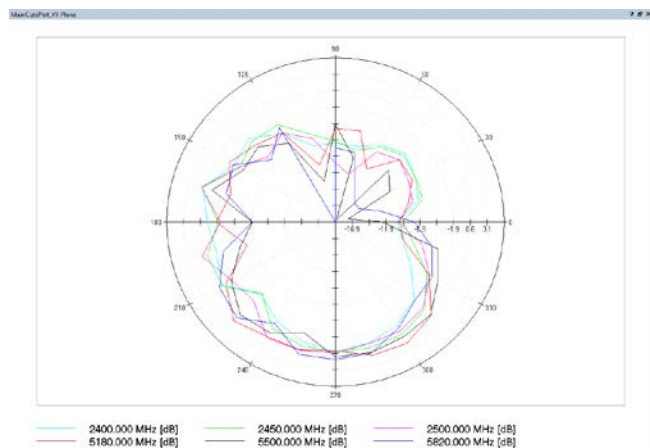


(Theta 90 degree)

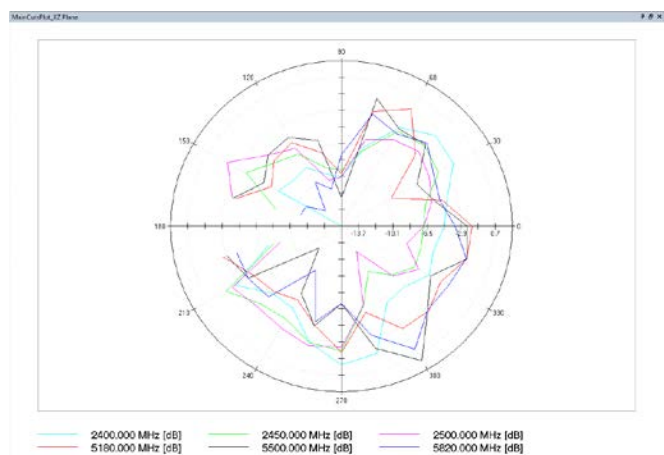


Wi-Fi 1 Antenna Patterns

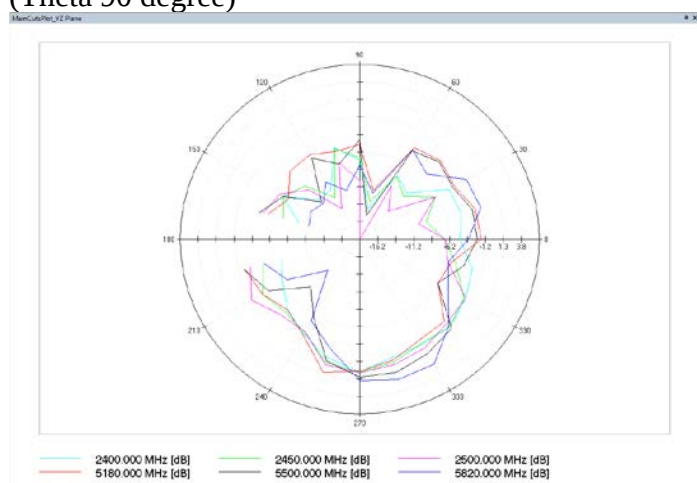
(Phi 0 degree)



(Phi 90 degree)



(Theta 90 degree)



Antenna test equipment & caribration

Description	Manufactur er	Model	Cal. Date	Cal. Due
Vector Network Analyzer	R&S	ZNB 8	2022.08.01	1 year
Signal and Spectrum Analyzer	R&S	FSV 7	2022.08.01	1 year
Wideband Radio Communication Tester	R&S	CMW500	2022.08.01	1 year

Antenna test engineer name

Carl Liu

Antenna test lab

TUV Rheinland (Shenzhen) Co., Ltd

OTA Measurement System type: R&S TS8991