

Martinique Antenna Specification

(WLAN 2xMIMO + BT)

2012.01



Description

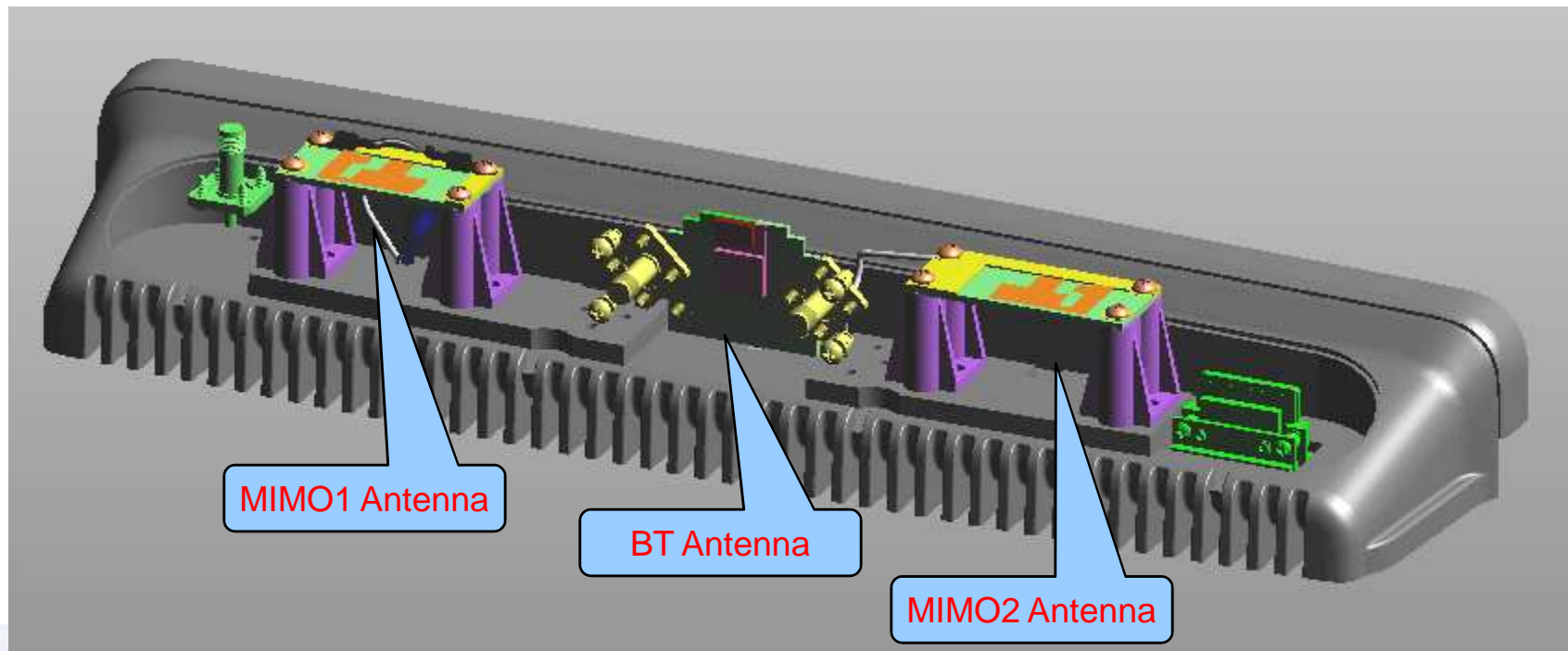
Three antennas are in Martinique.

(a) WLAN 802.11 a/b/g/n. Dual MIMO 2Tx/2Rx Antennas.

Frequency range: From 2400 MHz to 2495 MHz and 5150 MHz to 5840 MHz

(b) BT antenna:

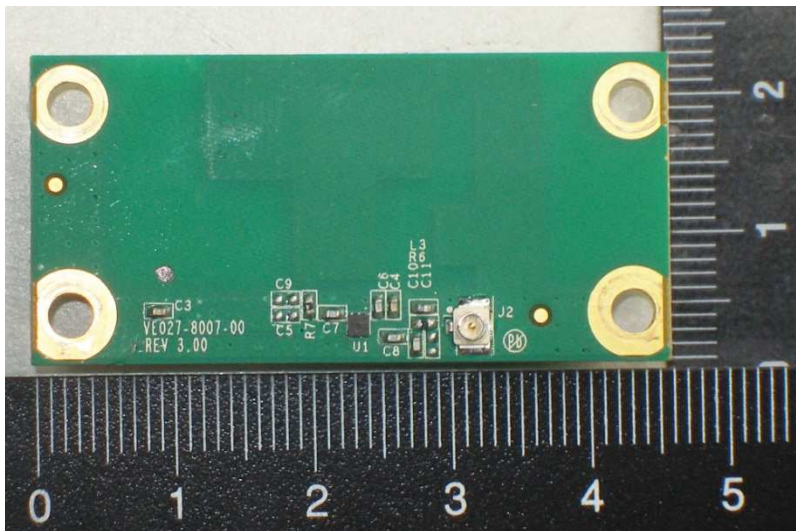
2400~2484MHz



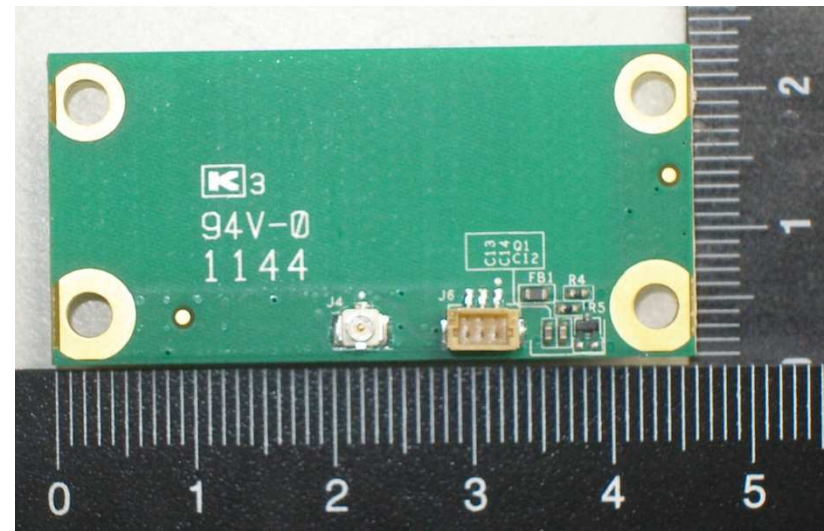
Part 1: MIMO1 Antenna



- MIMO1 Antenna: WLAN 802.11bgn - 2400MHz to 2495MHz
WLAN 802.11an - 5150MHz to 5840MHz



Top Side



Bottom Side

MIMO1 Antenna:



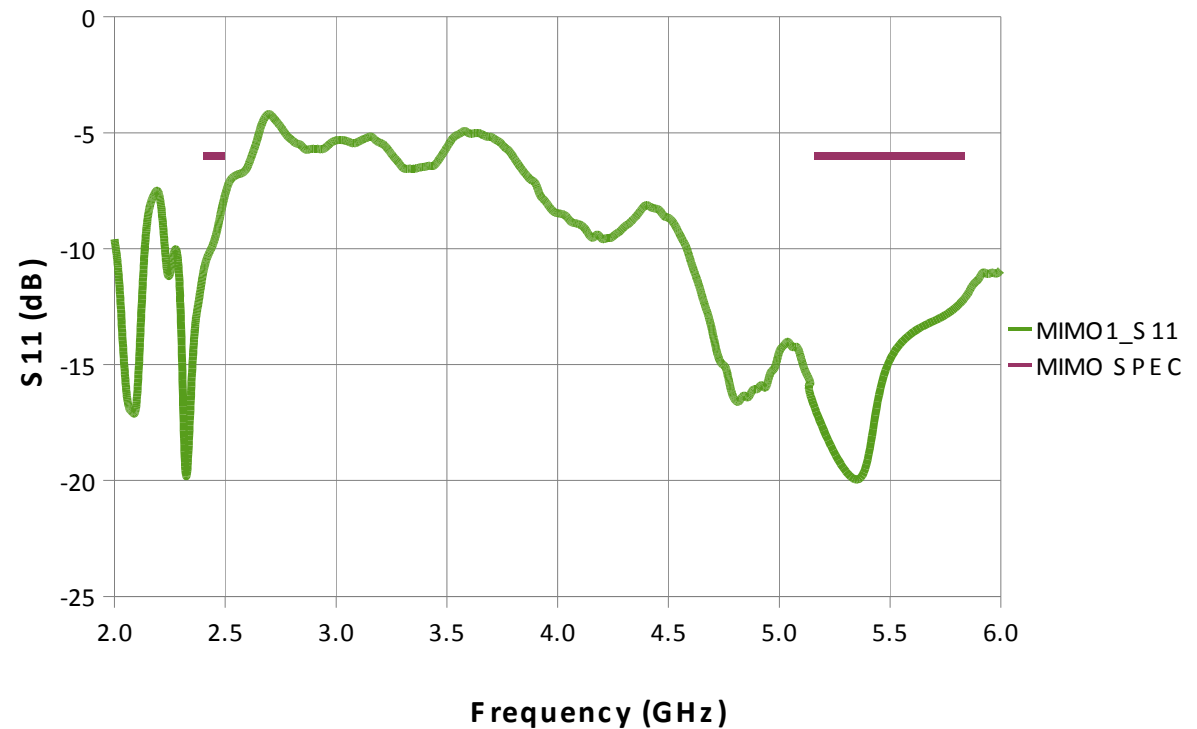
MIMO1 Antenna		Antenna Type	Antenna Total Efficiency Measurement	Antenna Gain
	(Mhz)		%	dBi
801.11bgn	2400	PIFA	52.8	4.38
	2450		49.9	3.73
	2495		42.6	2.80
801.11ban	5150	PIFA	56.4	5.25
	5470		51.6	3.27
	5840		42.4	2.83

MIMO1 Antenna: Return Loss



MIMO1 Return Loss

Freq (MHz)	RL (dB)
2400	-11.1
2450	-9.9
2495	-7.7
5150	-16.9
5350	-19.9
5470	-15.2
5725	-13.0
5840	-12.1

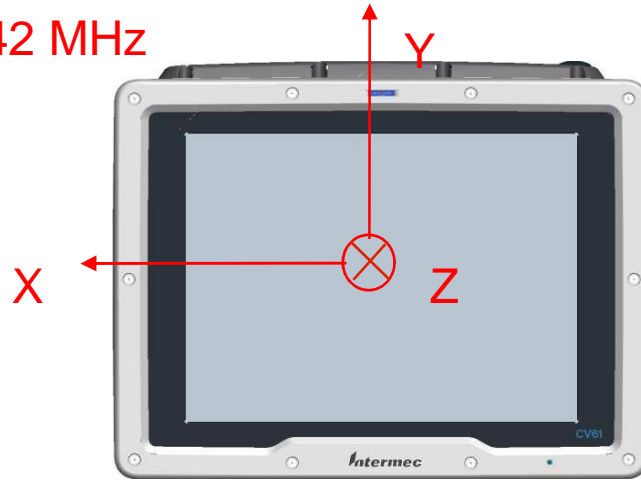


- In WLAN dual frequency bands, return loss is below -6dB.

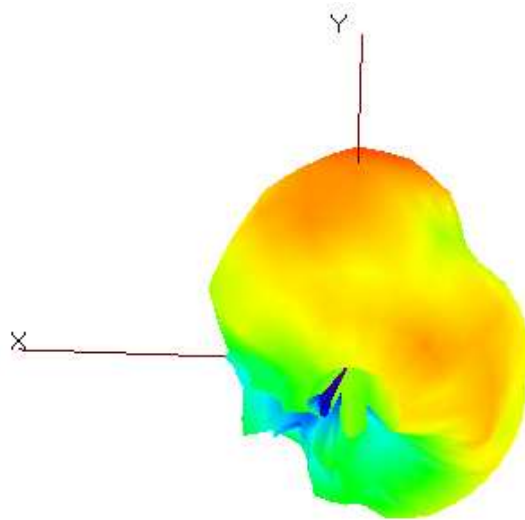
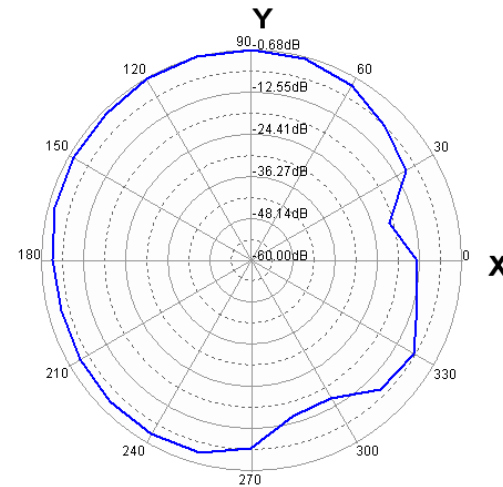
MIMO1 Antenna : Radiation Pattern



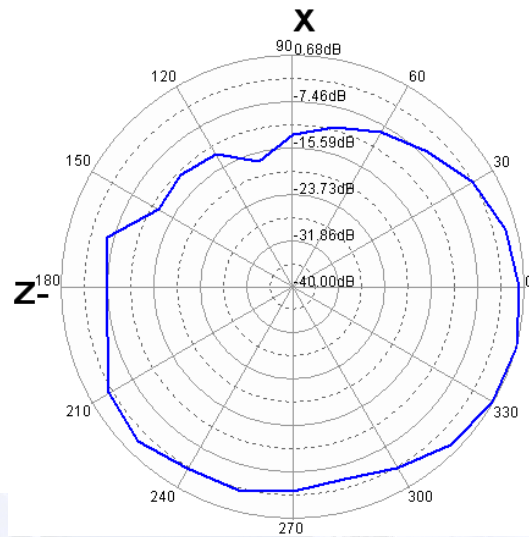
@ 2442 MHz



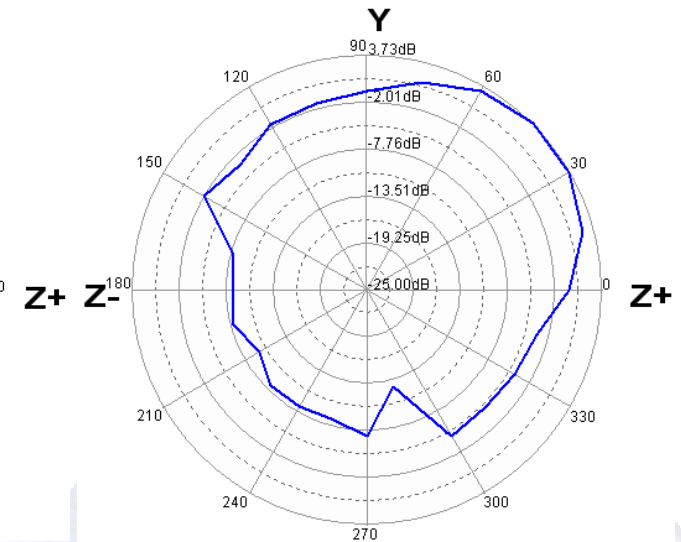
Passive Test E-Total (X-Y Plane)



Passive Test E-Total (X-Z Plane)



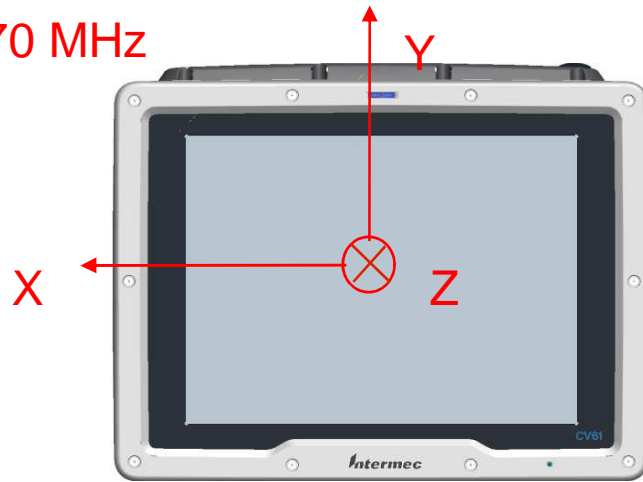
Passive Test E-Total (Y-Z Plane)



MIMO1 Antenna : Radiation Pattern

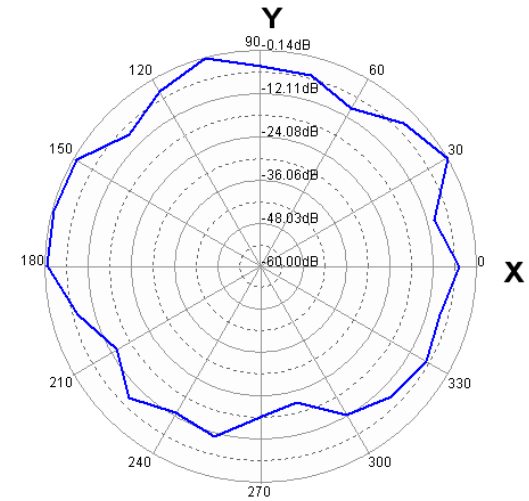


@ 5470 MHz

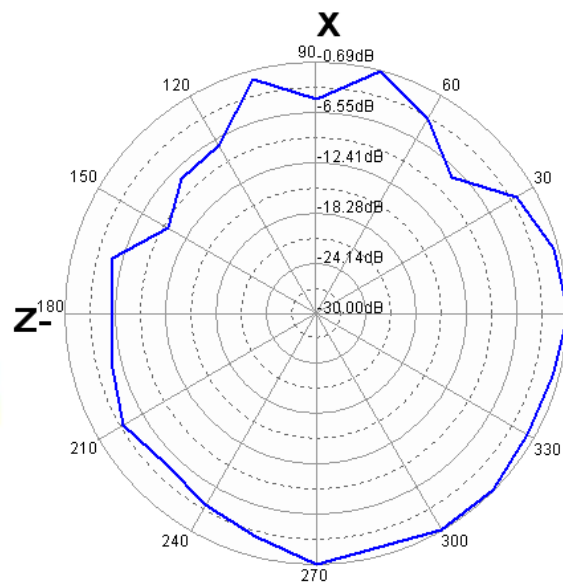
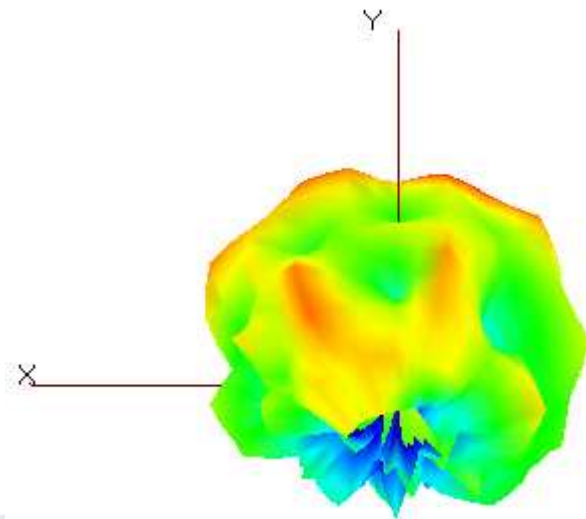
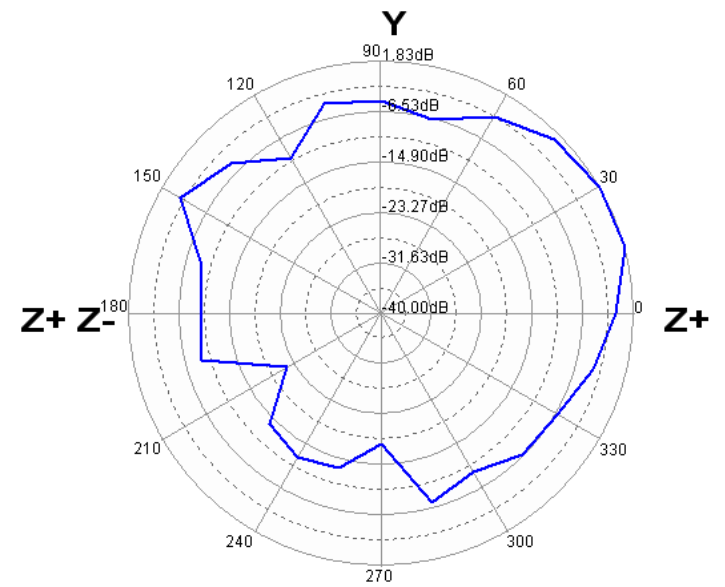


Passive Test E-Total (X-Z Plane)

Passive Test E-Total (X-Y Plane)



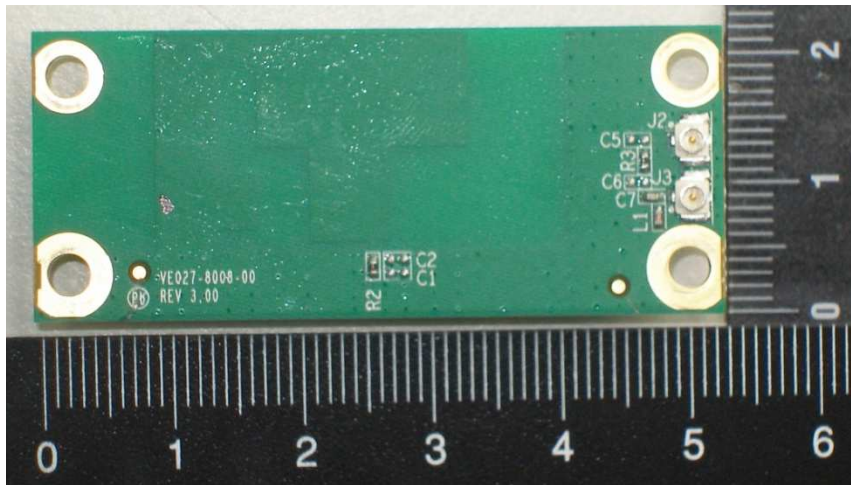
Passive Test E-Total (Y-Z Plane)



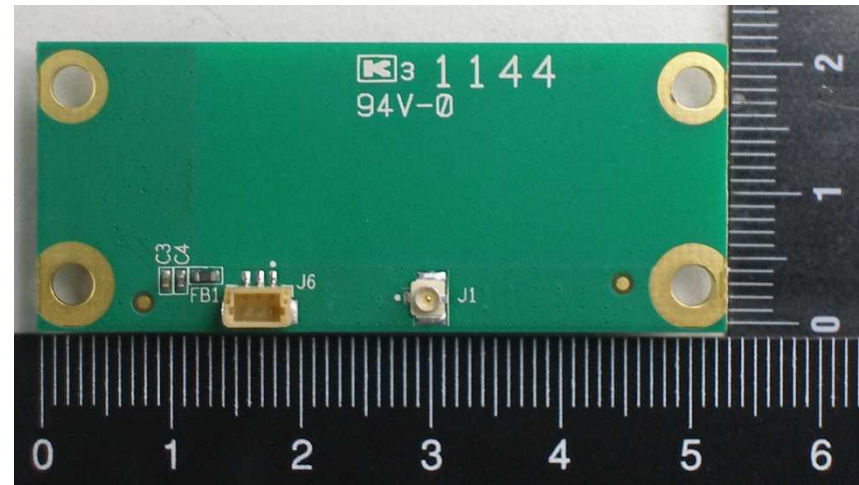
Part 2: MIMO2 Antenna



- MIMO2 Antenna: WLAN 802.11bgn - 2400MHz to 2495MHz
WLAN 802.11an - 5150MHz to 5840MHz



Top Side



Bottom Side

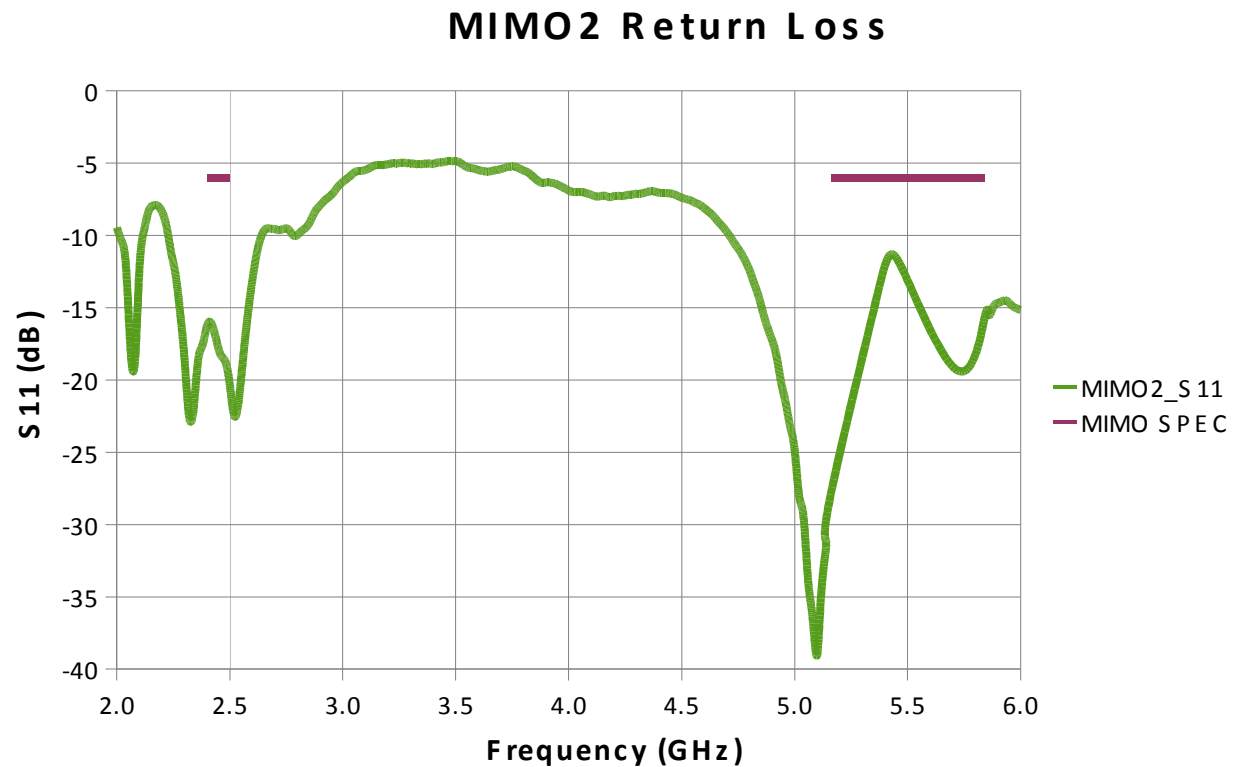
MIMO2 Antenna :

MIMO2 Antenna		Antenna Type	Antenna Total Efficiency Measurement	Antenna Gain
	(Mhz)		%	dBi
801.11bgn	2400	PIFA	60.9	4.92
	2450		59.3	4.50
	2495		50.9	3.32
801.11ban	5150	PIFA	54.6	5.02
	5470		48.1	5.36
	5840		46.9	2.56

MIMO2 Antenna: Return Loss



Freq (MHz)	RL (dB)
2400	-16.2
2450	-17.2
2495	-20.4
5150	-27.9
5350	-14.5
5470	-12.4
5725	-19.3
5840	-15.8

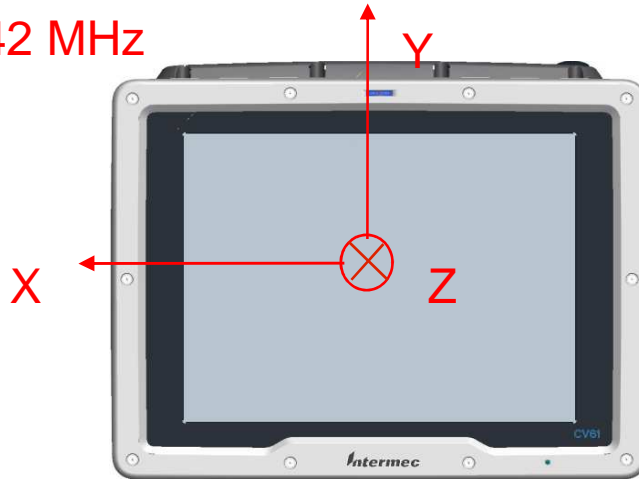


- In WLAN dual frequency bands, return loss is below -6dB.

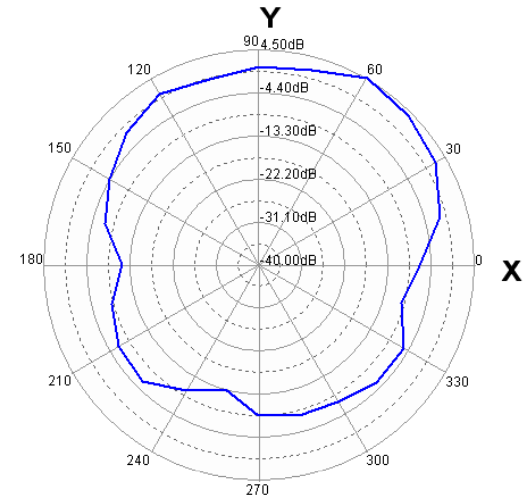
MIMO2 Antenna : Radiation Pattern



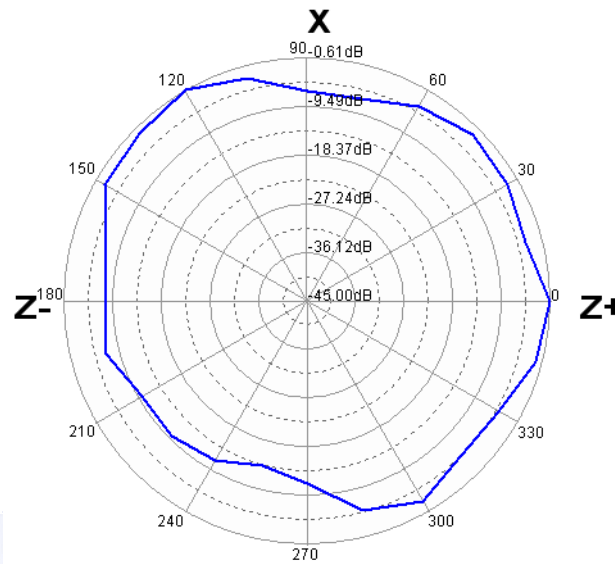
@ 2442 MHz



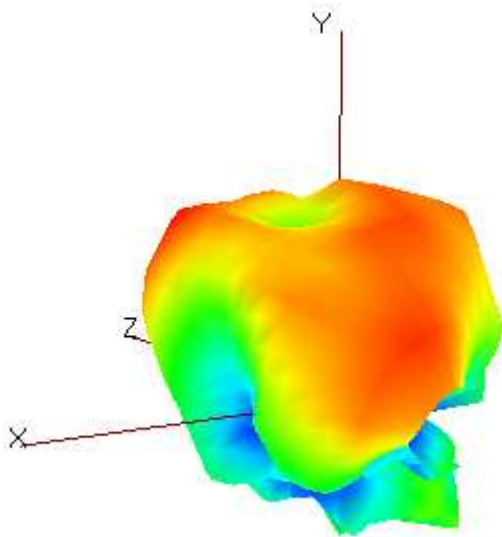
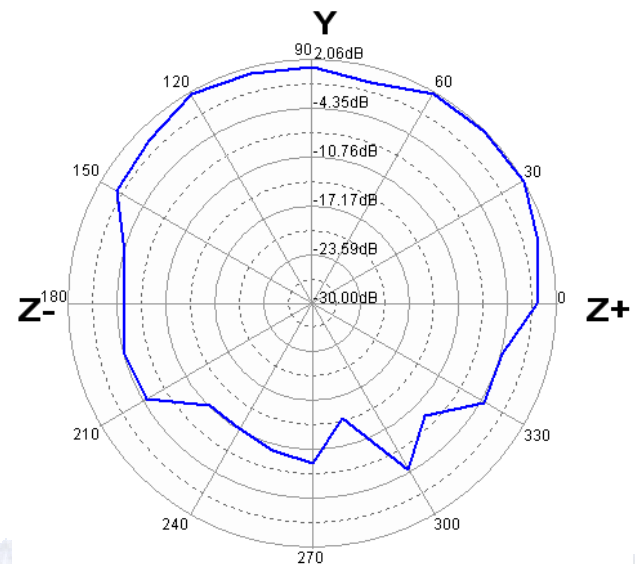
Passive Test E-Total (X-Y Plane)



Passive Test E-Total (X-Z Plane)



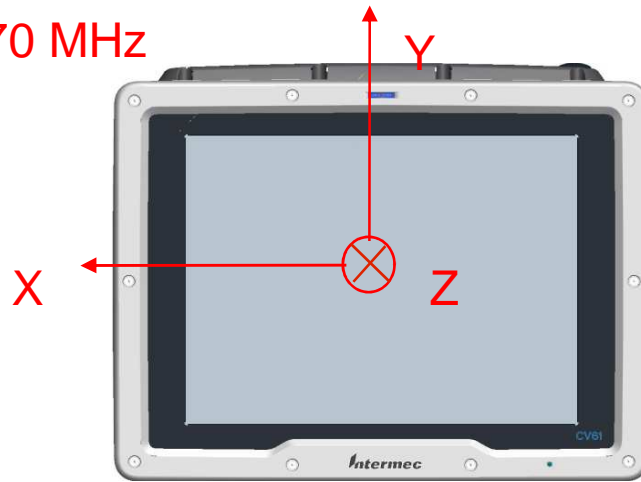
Passive Test E-Total (Y-Z Plane)



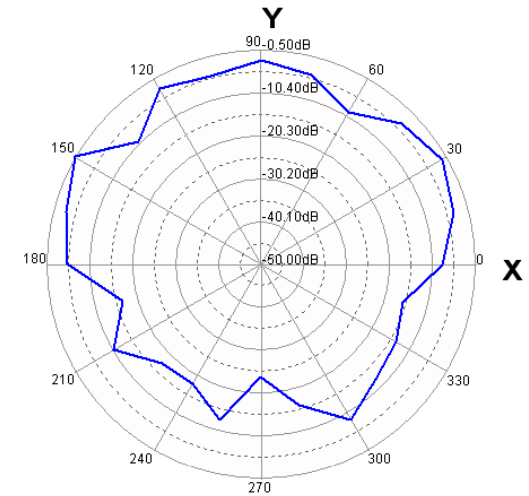
MIMO2 Antenna : Radiation Pattern



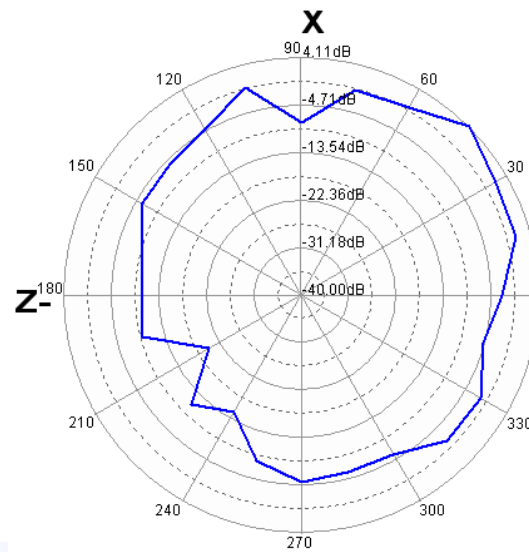
@ 5470 MHz



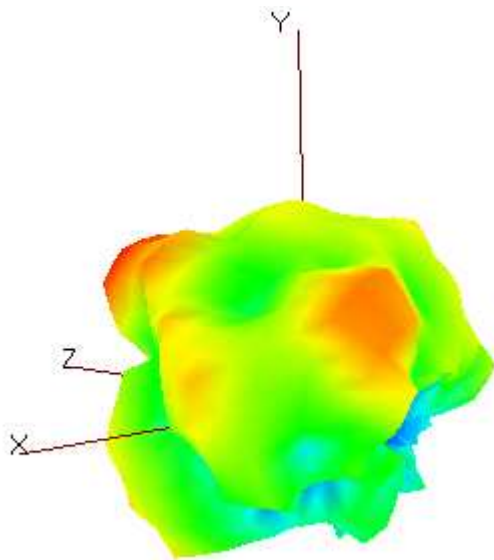
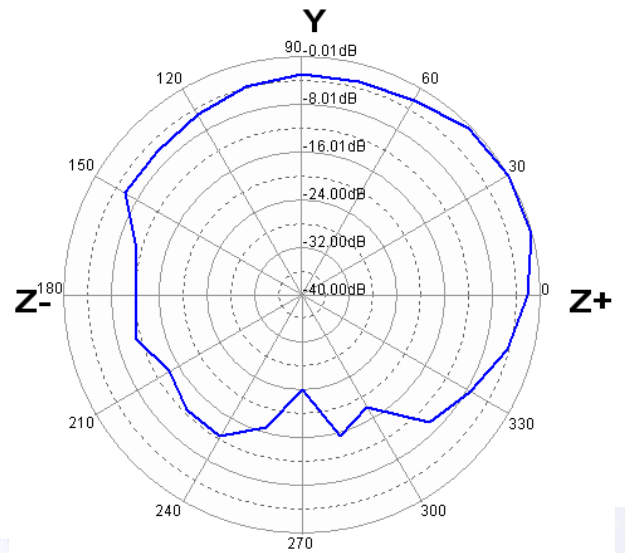
Passive Test E-Total (X-Y Plane)



Passive Test E-Total (X-Z Plane)

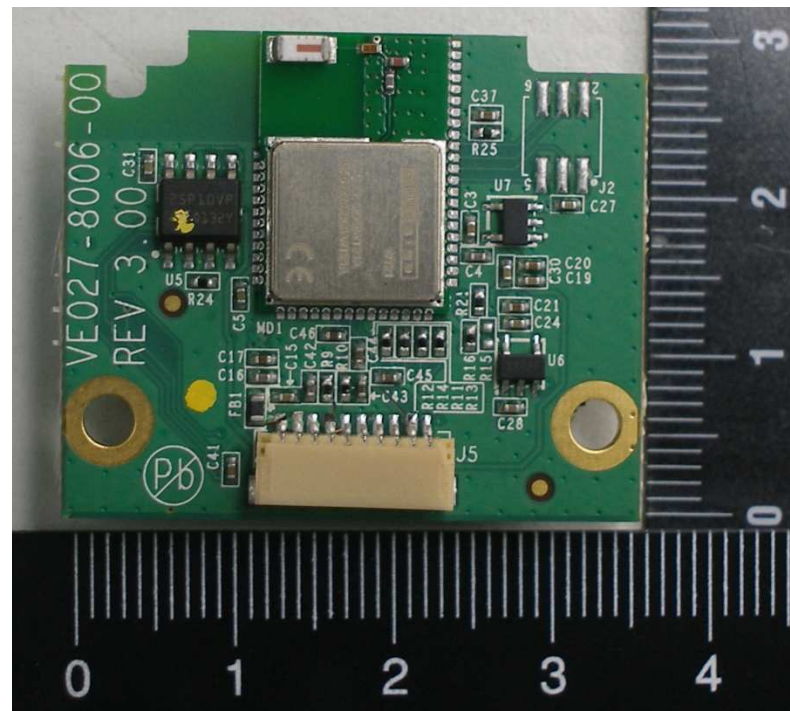


Passive Test E-Total (Y-Z Plane)



Part 3: BT Antenna

- BT Antenna: 2400MHz to 2484MHz
(chip antenna)



BT Antenna :

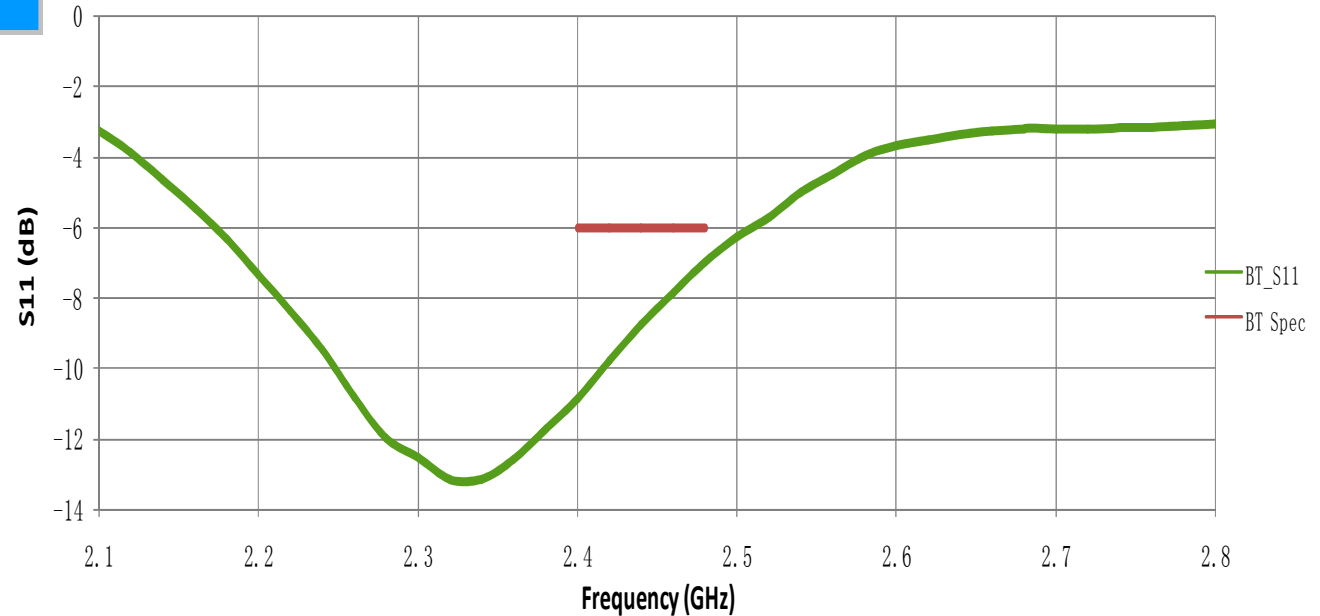
BT Antenna (Mhz)	Antenna Type	Antenna Total Efficiency Measurement %	Antenna Gain dBi
2400	Chip	39.2	2.44
2442		39.2	2.76
2484		36.3	2.16

BT Antenna: Return Loss



Freq (MHz)	RL (dB)
2400	-10.9
2442	-8.8
2484	-7.0

Bluetooth Return Loss

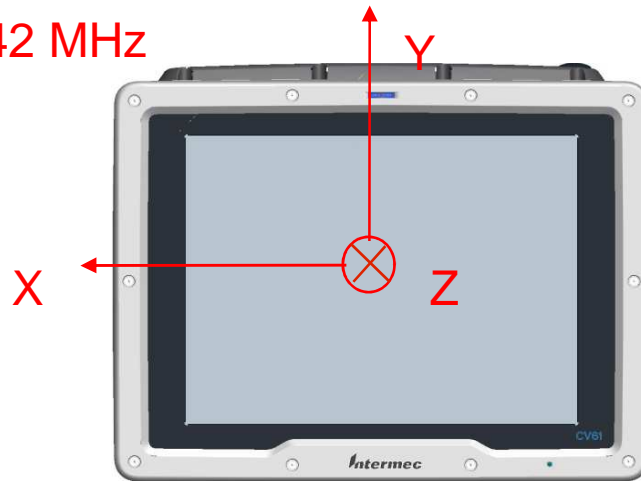


- In Bluetooth frequency bands, return loss is below -6dB.

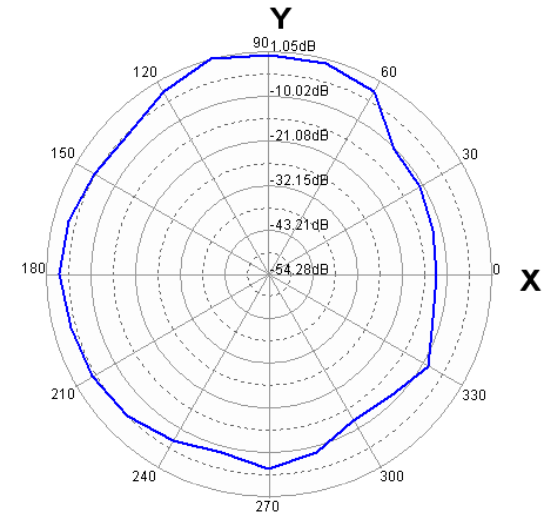
BT Antenna : Radiation Pattern



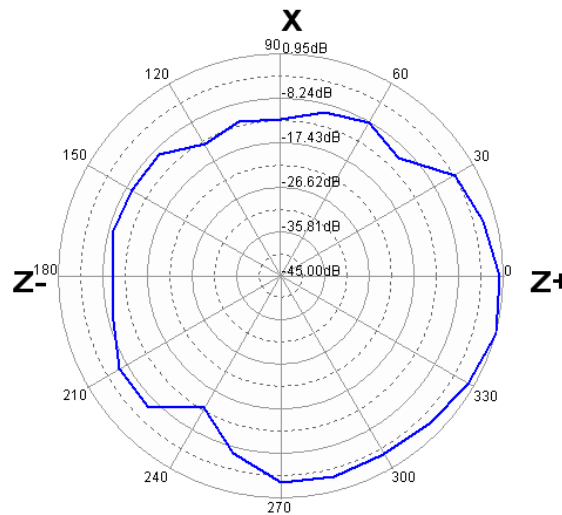
@ 2442 MHz



Passive Test E-Total (X-Y Plane)



Passive Test E-Total (X-Z Plane)



Passive Test E-Total (Y-Z Plane)

