



Meraki Neu-Vision Antenna Test Report

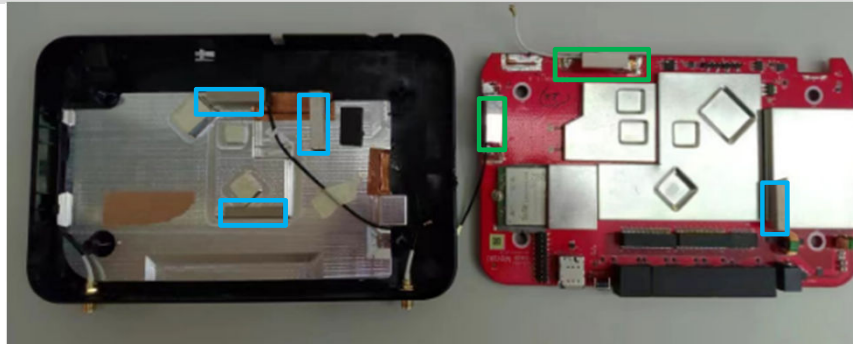
Apr. 24, 2024

Prepared by Jerry Ko

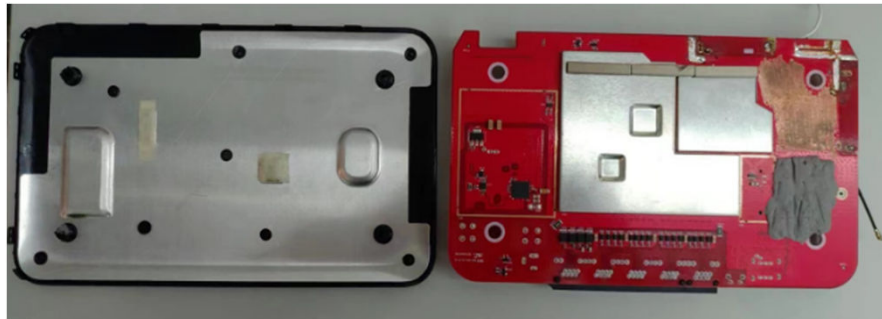
Outline

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

Antenna Structure & Placement



(TOP View)

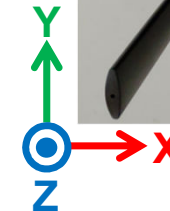
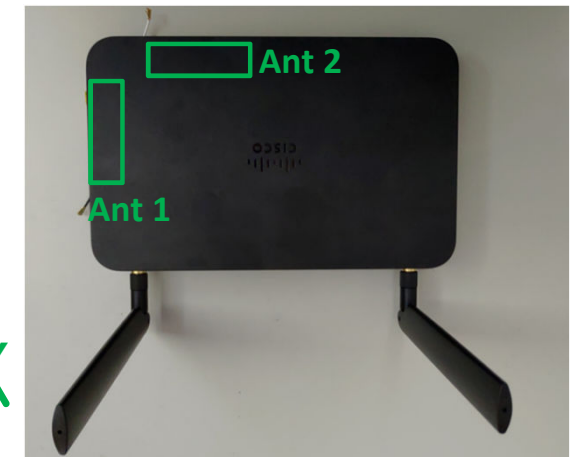


(BOT View)



Housing Version : Neu-Vision housing

PCBA Version : EVT

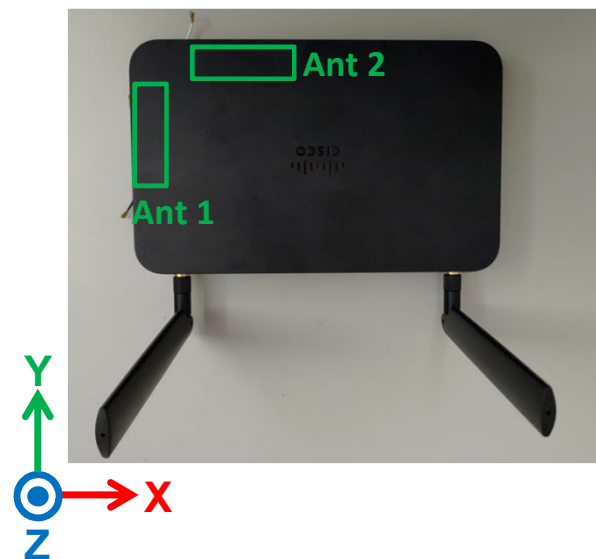
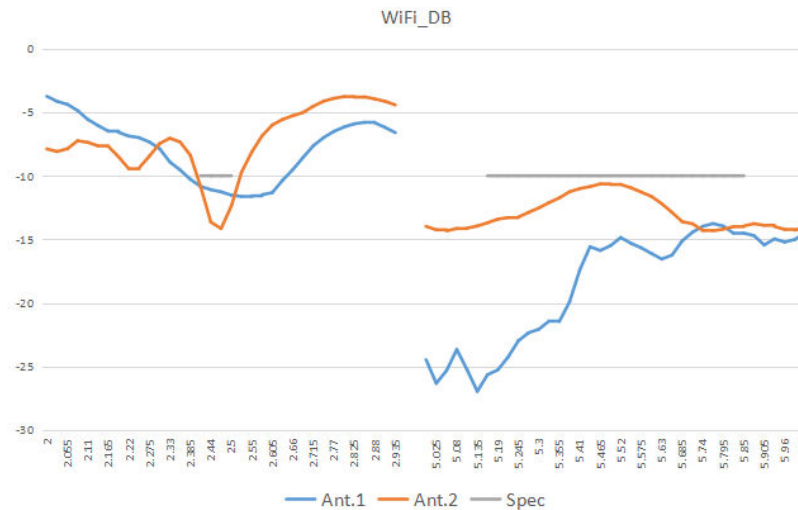


External LTE antenna is from Aristotle (RFA-S102-T318-UM70).

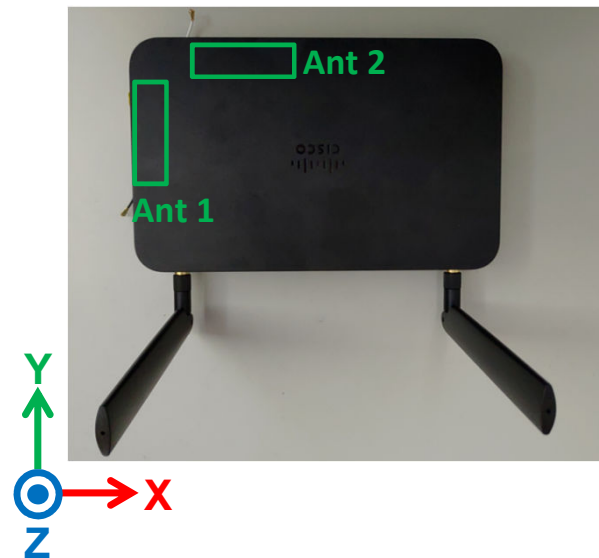
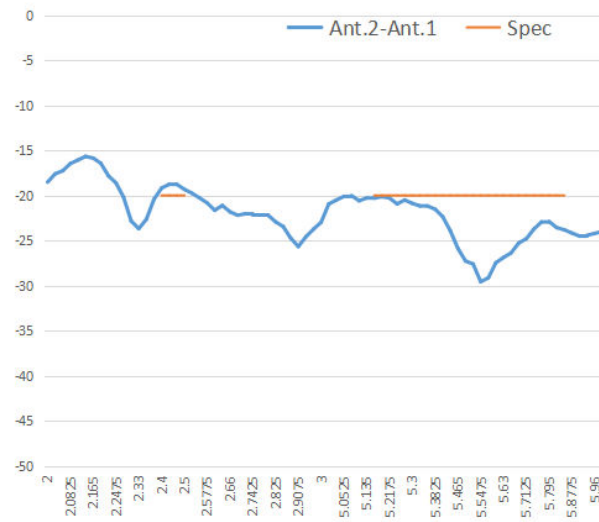
Ant No.	Ext. / Int.	Operating Band	Model Name	Type	Material	Feeding	Dimension
Ant 1	Internal	WiFi 2.4G/5G	6172005ZWA	PIFA	Metal	Cable	31 x 8.4 x 14.3 mm ³
Ant 2	Internal	WiFi 2.4G/5G	61720060WA	PIFA	Metal	Cable	31 x 8.4 x 14.3 mm ³

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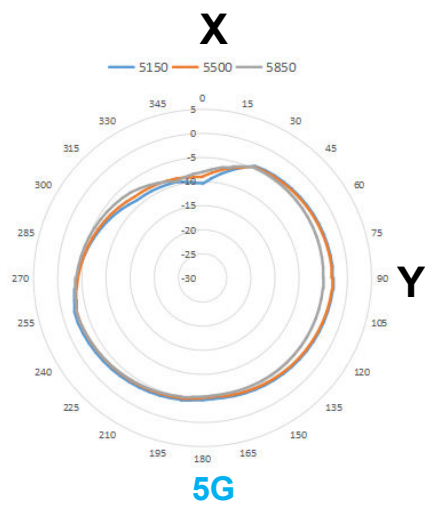
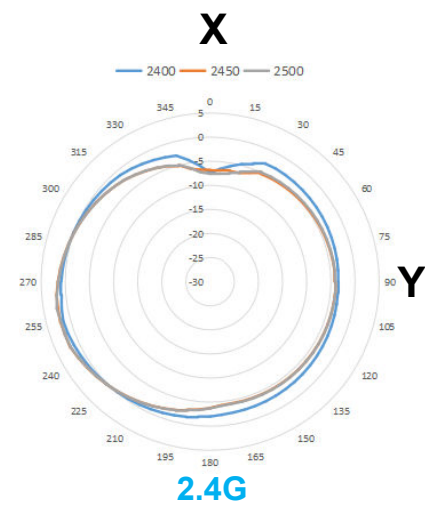
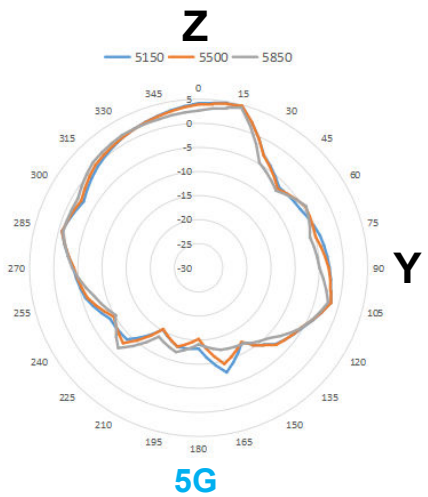
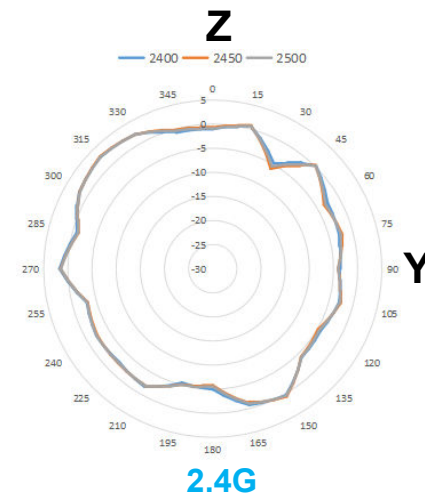
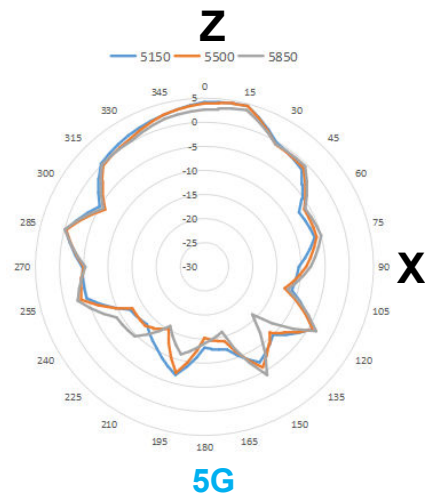
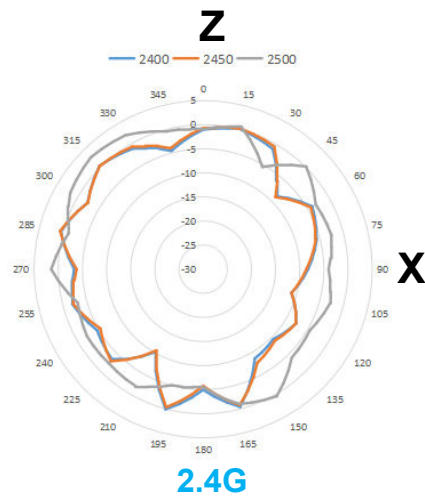
Return Loss @ WiFi_DB



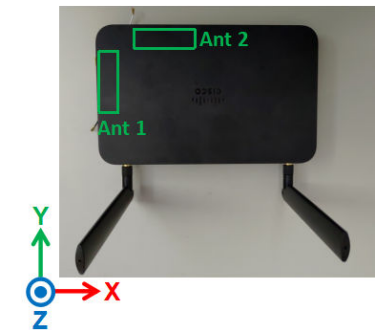
Isolation @ WiFi_DB



2D Radiation Pattern – Ant 1

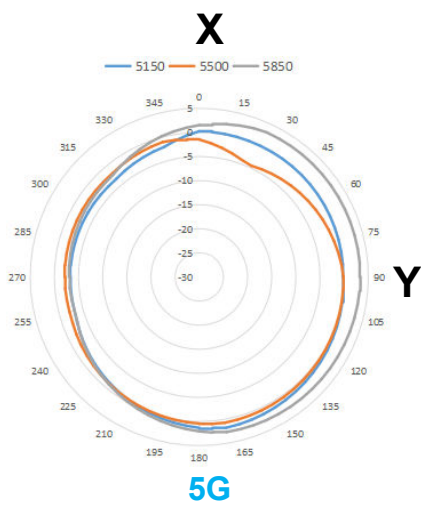
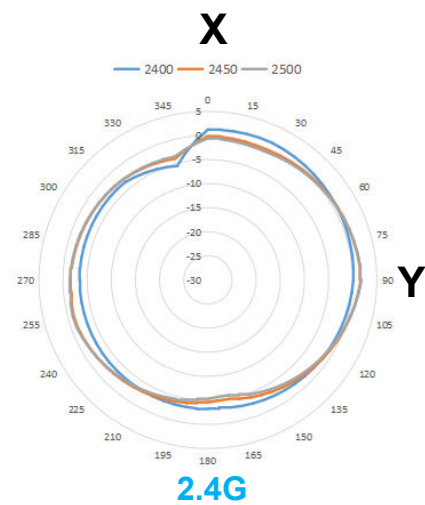
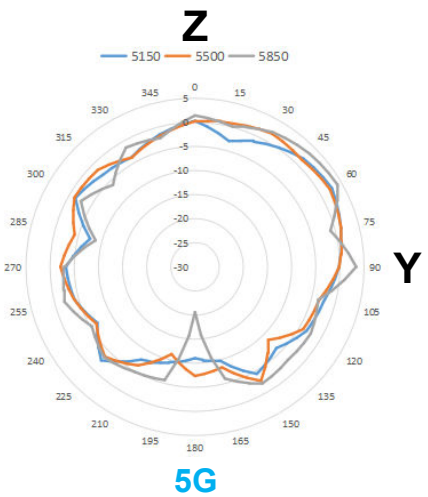
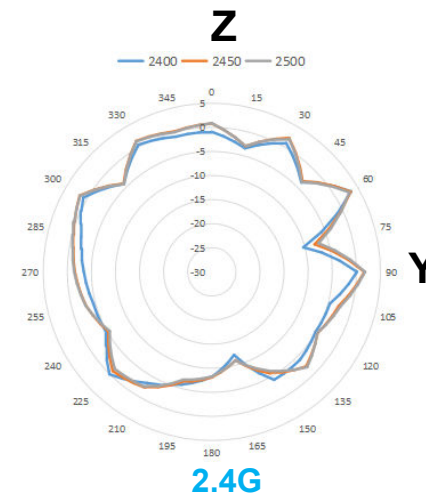
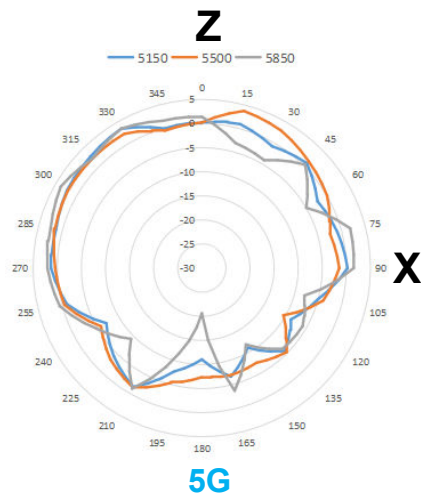
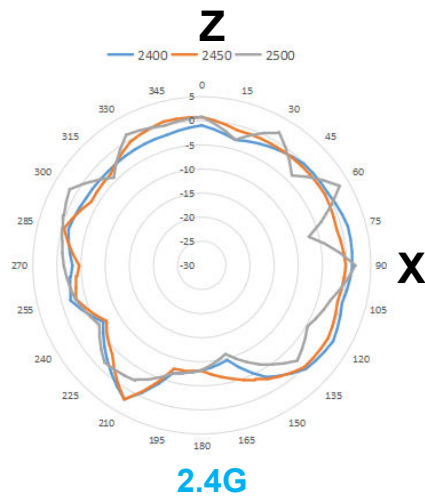


Frequency (MHz)	Ripple (dB)
2400	8.9
2450	9.0
2500	9.8
5150	8.0
5500	6.0
5850	6.2

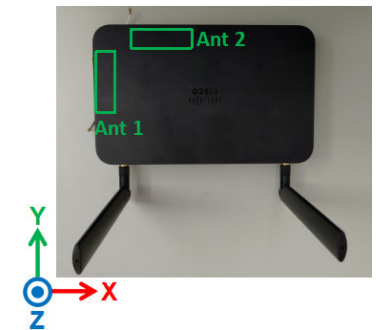


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2D Radiation Pattern – Ant 2

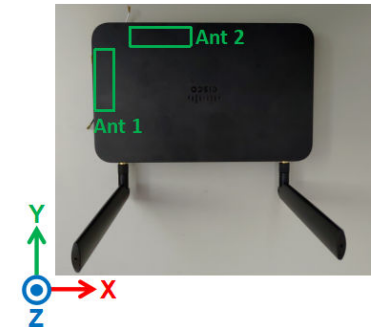
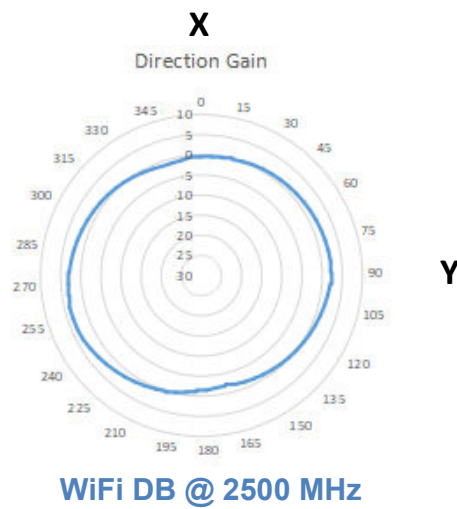
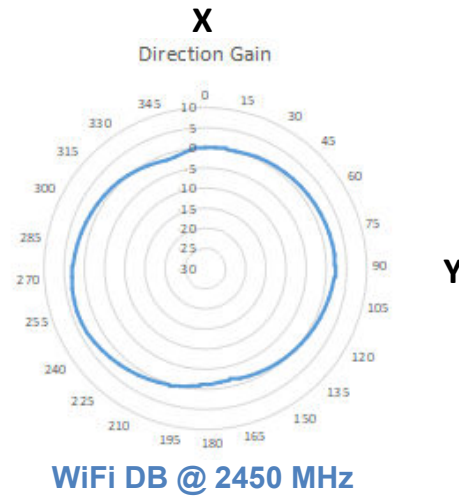
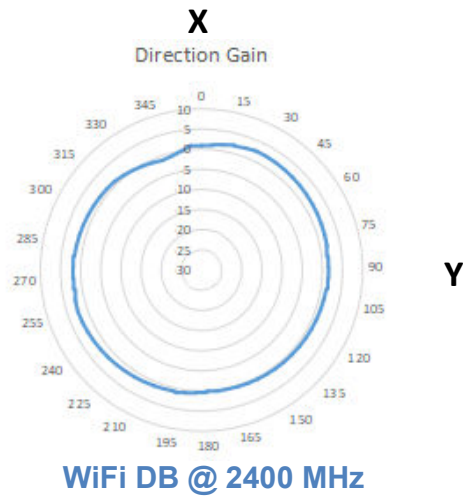


Frequency (MHz)	Ripple (dB)
2400	6.9
2450	6.5
2500	7.5
5150	5.1
5500	5.2
5850	6.6



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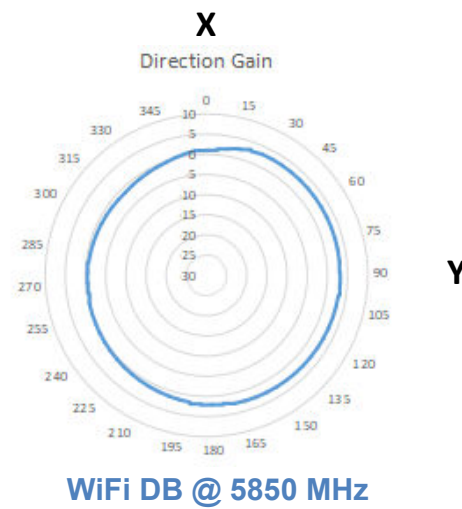
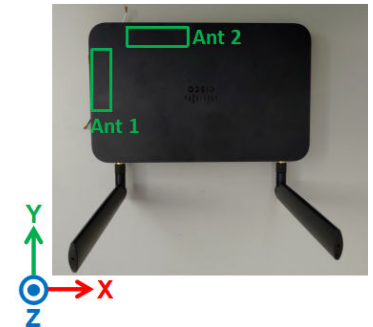
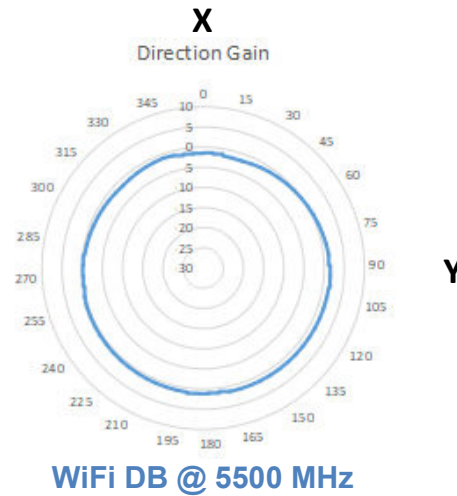
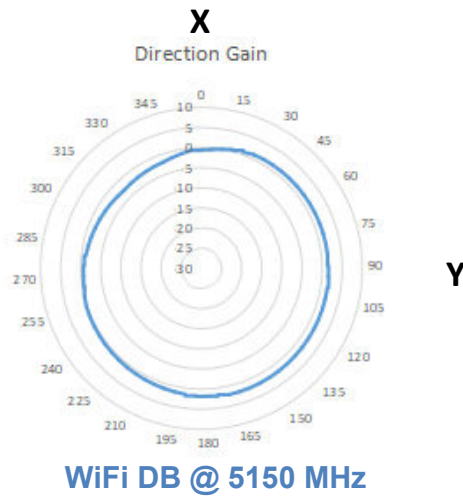
Directional Gain Pattern @ WiFi 2G



XY plane	Ripple (dB)	Directional Gain (dB)	Peak Gain (dBi)	
			Ant 1	Ant 2
-	-	-	Ant 1	Ant 2
2400 MHz	3.6	5.8	3.3	3.4
2450 MHz	5.2	6.2	3.1	3.3
2500 MHz	5.6	6.1	3.2	3.2

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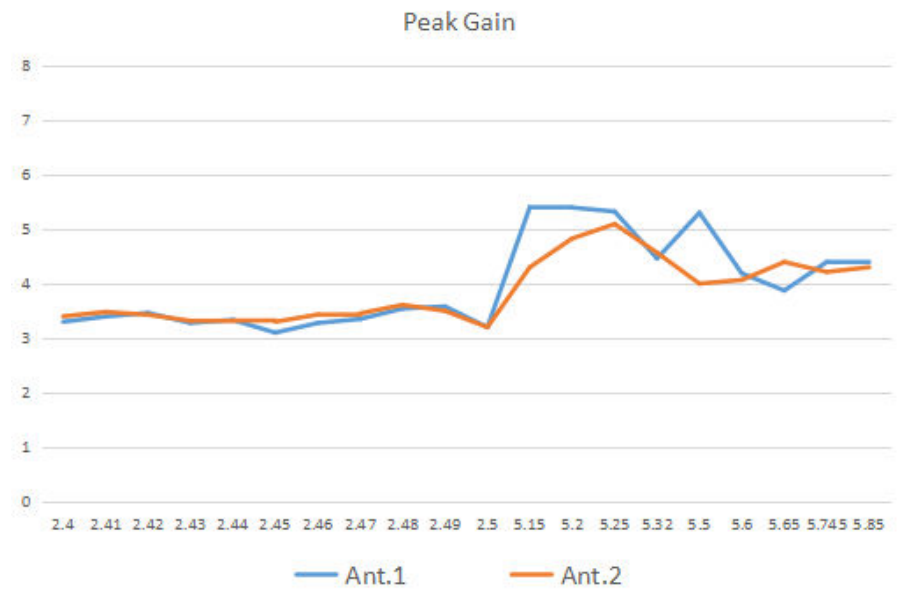
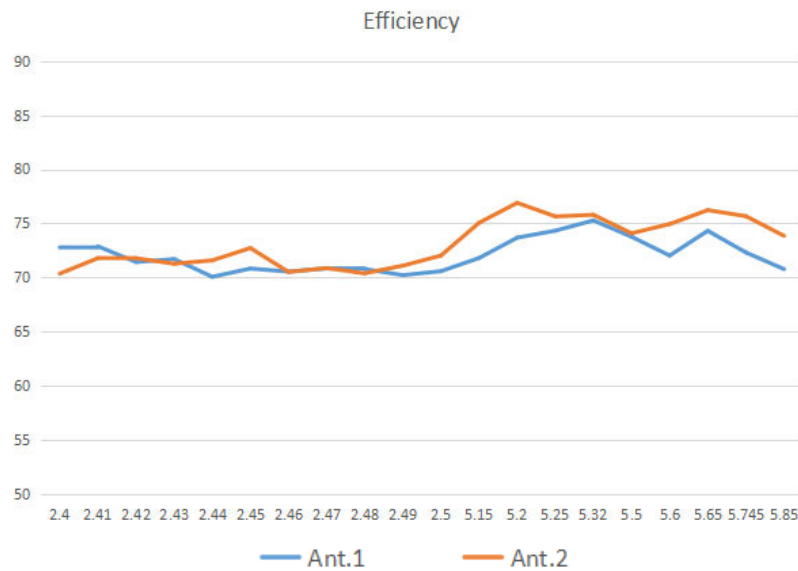
Directional Gain Pattern @ WiFi 5G



XY plane	Ripple (dB)	Directional Gain (dB)	Peak Gain (dBi)	
			Ant 1	Ant 2
-	-	-	Ant 1	Ant 2
5150 MHz	7.2	5.9	5.4	4.3
5500 MHz	6.2	7.1	5.3	4.0
5850 MHz	7.1	6.0	4.4	4.3

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Peak Gain & Efficiency



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