



BEE-001(-01) AUT Report

Antenna specification (Antenna0)

- Frequency Range
 - WLAN: 2412-2472, 5180-5320, 5500-5700, 5745-5825 MHz
 - Bluetooth: 2402-2480 MHz
- Antenna Type
 - LDS antenna
- Connector Type
 - MHF I / II
- Antenna Gain (Peak)
 - 2.4 GHz Band: -1.83 dBi
 - 5 GHz Band: -0.54 dBi

Antenna specification (Antenna1)

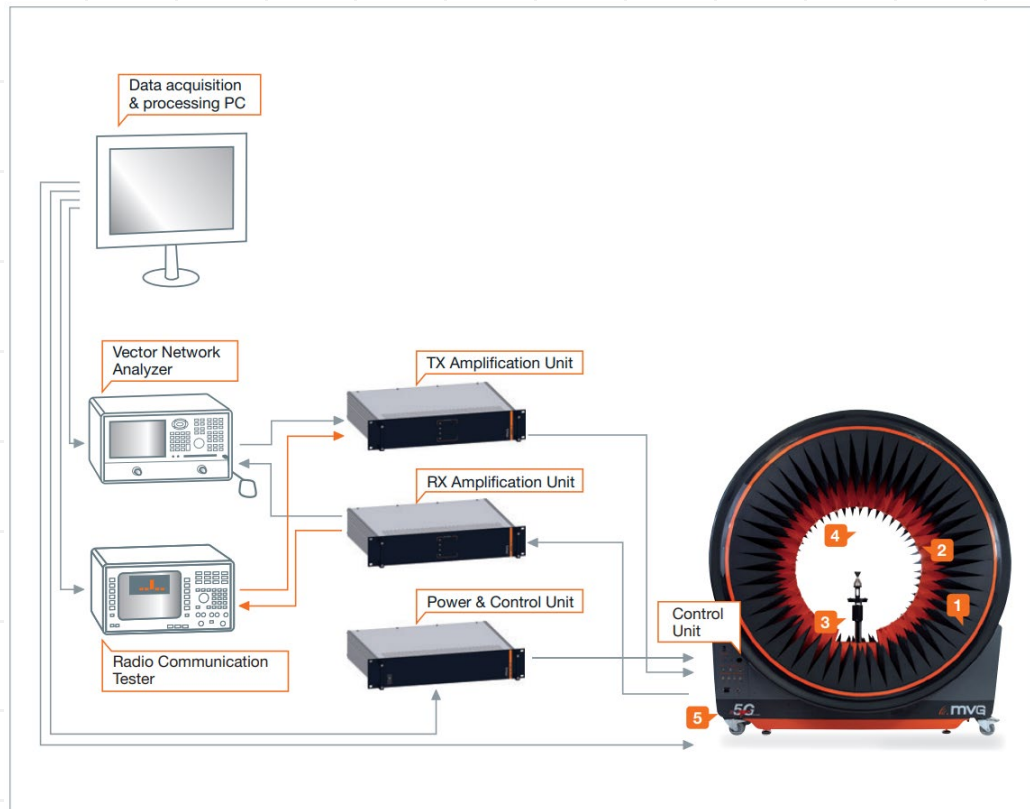
- Frequency Range
 - Bluetooth: 2402-2480 MHz
- Antenna Type
 - LDS antenna
- Connector Type
 - MHF I / II
- Antenna Gain (Peak)
 - 2.4 GHz Band: -1.21 dBi

Antenna specification (Antenna2)

- Frequency Range
 - WLAN: 2412-2472, 5180-5320, 5500-5700, 5745-5825 MHz
- Antenna Type
 - LDS antenna
- Connector Type
 - MHF I / II
- Antenna Gain (Peak)
 - 2.4 GHz Band: -2.94 dBi
 - 5 GHz Band: +1.64 dBi

Antenna measurement procedure

- The antenna gain is measured with StarLab system.

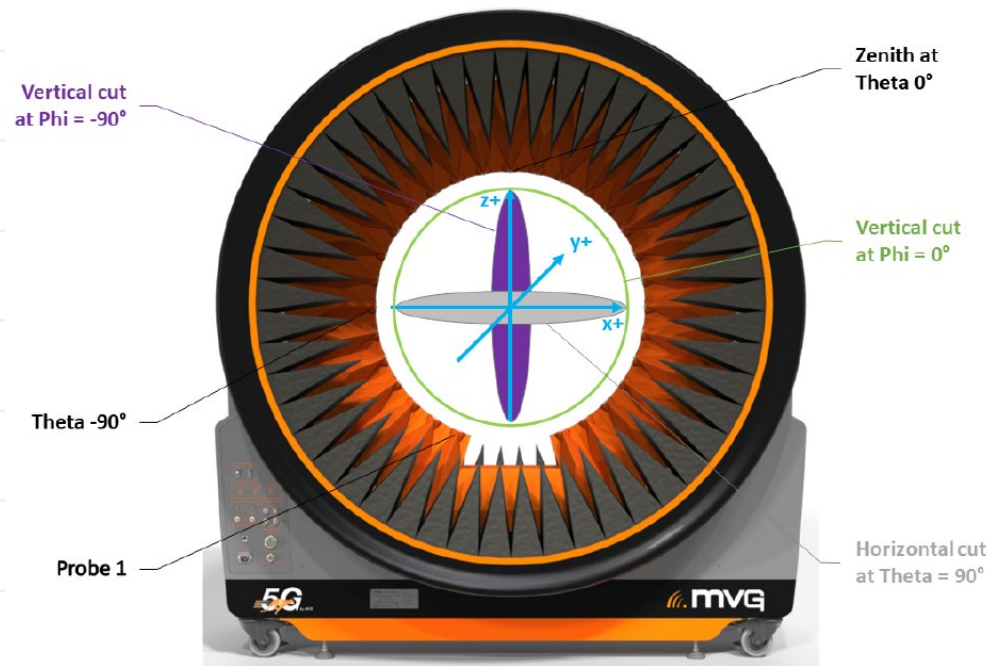


1. Wedge Absorber
2. Probe
3. Positioner
4. Oversampling
5. Accurate Stabilizer

(Reference: MVG, Datasheet of StarLab 50 GHz)

Antenna measurement procedure

- Measurement axis



(Reference: MVG, User Manual of StarLab 50 GHz)

Measurement information

- Test Facility
 - Nintendo Co., Ltd. Development Center
 - 2-1 Minamimatsuda-cho, Higashikujo, Minami-ku, Kyoto 601-8502, Japan
- Test Date
 - 2025/06/02
- Test Engineer
 - Mitsuru Katayama
- Measurement Software
 - Wave Studio ver.24.3.3

Measurement information

- Measurement Equipment

Instrument	Manufacturer	Model No.	Serial No.	Last Calibration Date
StarLab 50GHz system	MVG	StarLab 50GHz	1103673-0003	2024/10/25
Vector Network Analyzer	Keysight	P5008A	MY58100292	2024/10/25

Antenna Gain (Antenna0)

ANT	Frequency [MHz]	E ϕ [dBi]			E θ [dBi]		
		XY plane	YZ plane	XZ plane	XY plane	YZ plane	XZ plane
Antenna0	2400	-7.75	-7.68	-4.88	-6.27	-1.83	-7.87
	2420	-7.96	-7.98	-4.74	-7.01	-2.15	-8.48
	2440	-8.69	-9.03	-5.55	-7.72	-3.32	-9.28
	2460	-9.54	-10.34	-6.57	-8.61	-4.79	-10.42
	2480	-10.93	-11.98	-7.78	-9.67	-6.13	-11.37
	5150	-7.12	-6.18	-3.92	-2.70	-3.41	-3.37
	5250	-6.95	-4.92	-2.38	-2.24	-2.37	-2.56
	5350	-8.89	-6.10	-3.85	-4.74	-4.06	-3.97
	5450	-7.57	-4.57	-3.27	-5.95	-3.88	-3.91
	5550	-4.86	-2.02	-0.74	-4.67	-1.91	-1.10
	5650	-3.35	-0.77	-1.99	-4.07	-2.19	-0.54
	5750	-4.98	-3.20	-4.59	-6.07	-7.89	-2.52
	5850	-8.26	-5.25	-7.01	-9.20	-10.33	-5.36

Antenna Gain Chart (Antenna0)

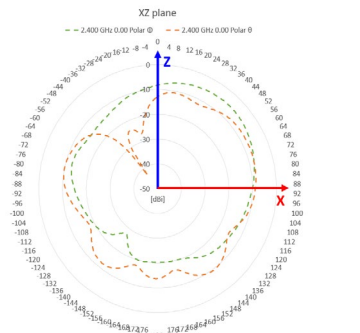
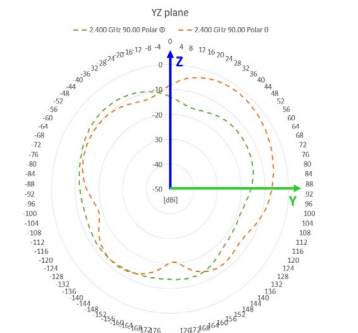
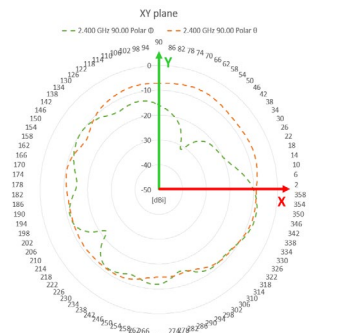
Frequency [MHz]

XY plane

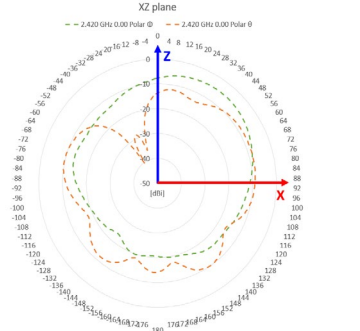
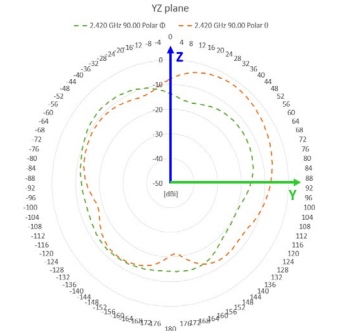
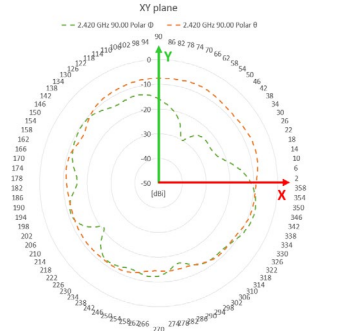
YZ plane

XZ plane

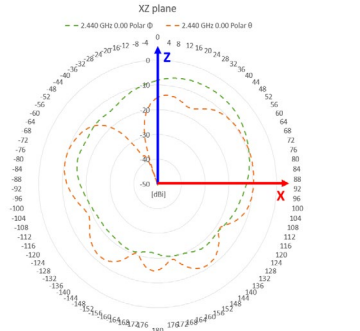
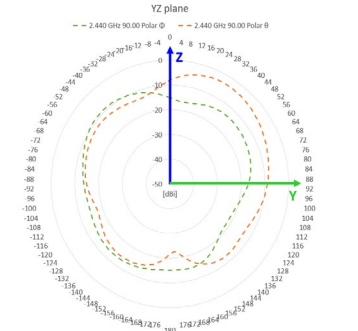
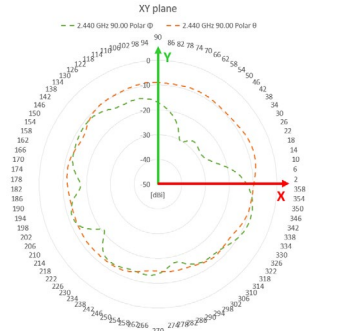
2400



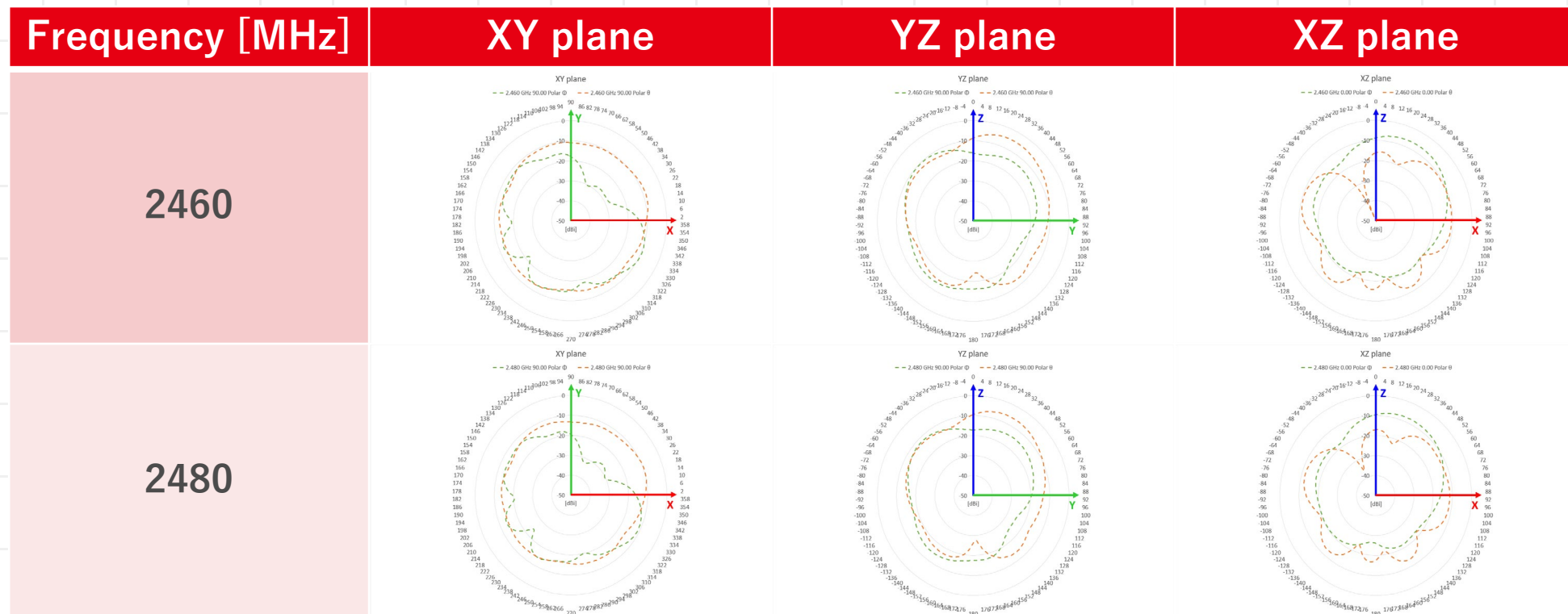
2420



2440



Antenna Gain Chart (Antenna0)



Antenna Gain Chart (Antenna0)

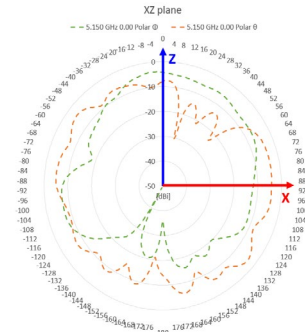
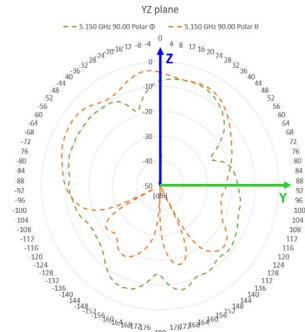
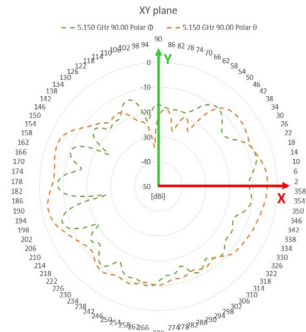
Frequency [MHz]

XY plane

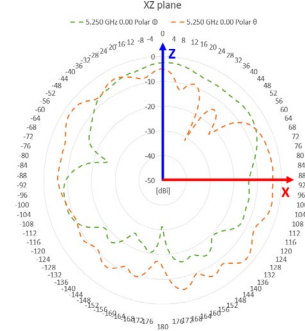
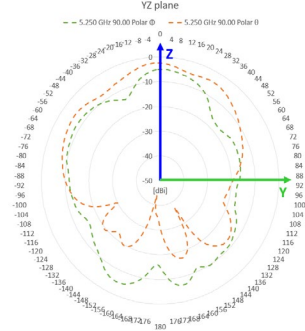
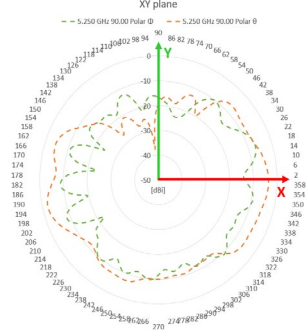
YZ plane

XZ plane

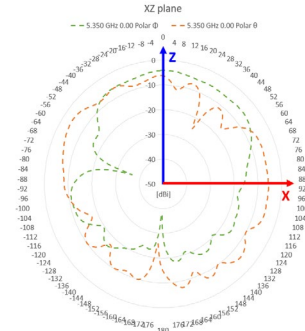
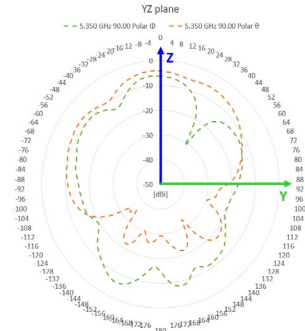
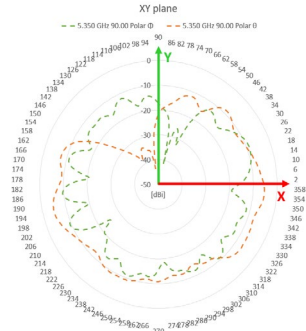
5150



5250



5350



Antenna Gain Chart (Antenna0)

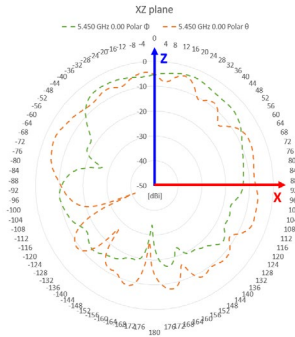
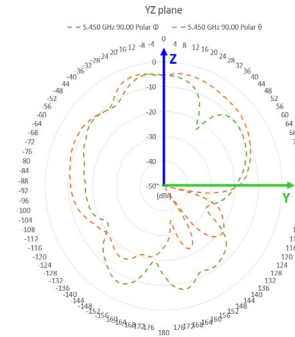
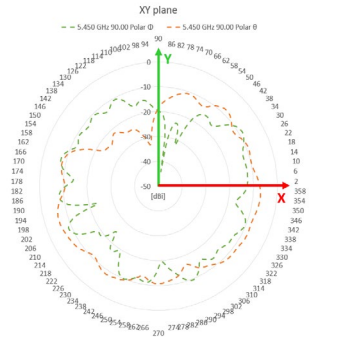
Frequency [MHz]

XY plane

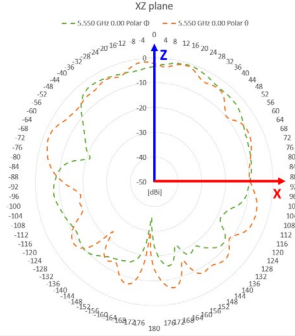
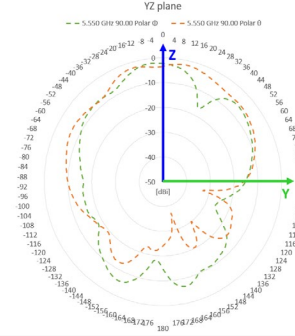
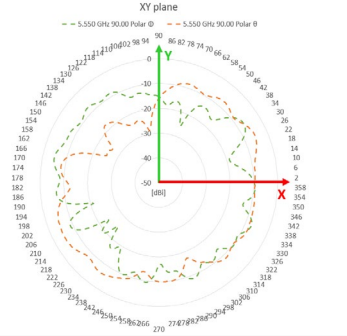
YZ plane

XZ plane

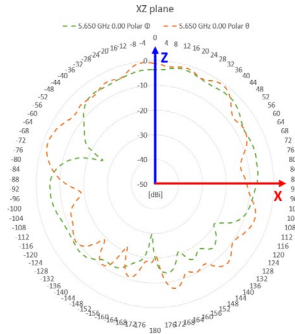
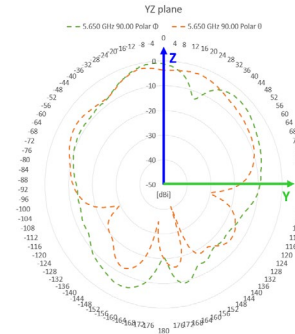
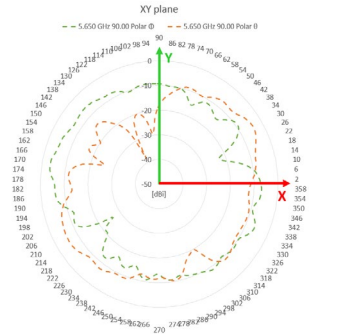
5450



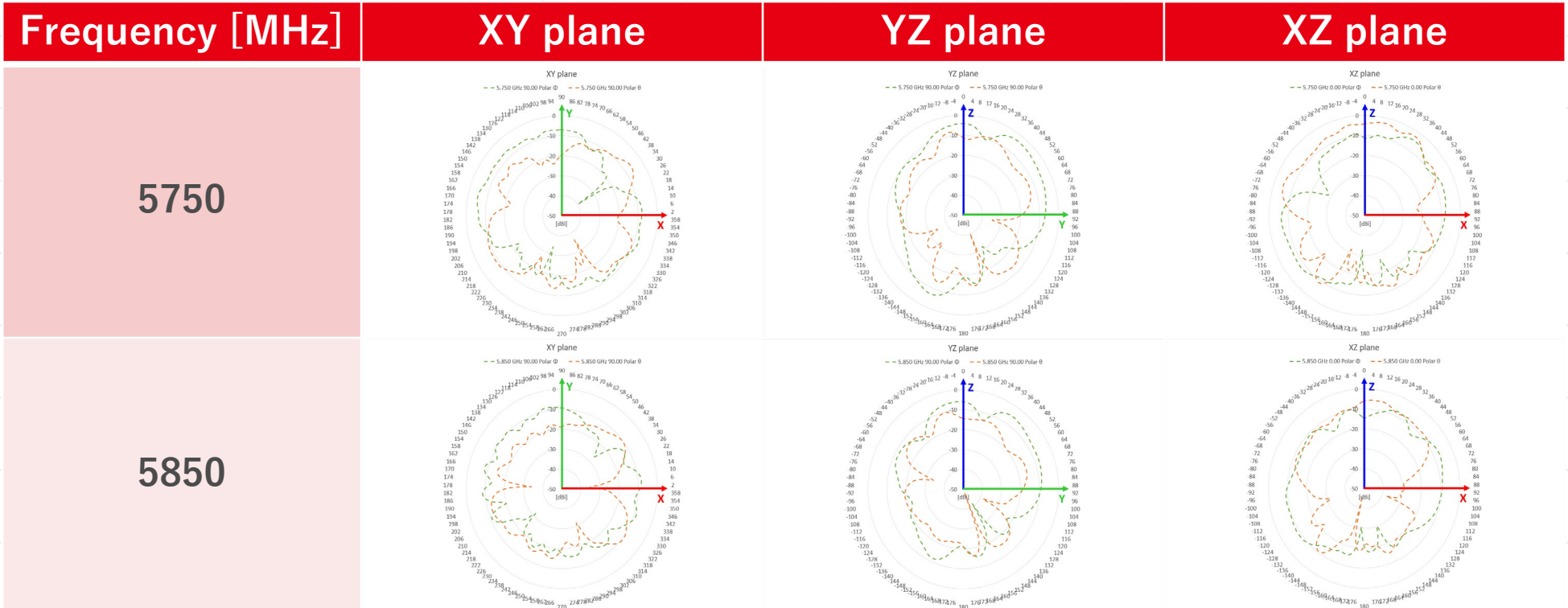
5550



5650



Antenna Gain Chart (Antenna0)



Antenna Gain (Antenna1)

ANT	Frequency [MHz]	E ϕ [dBi]			E θ [dBi]		
		XY plane	YZ plane	XZ plane	XY plane	YZ plane	XZ plane
Antenna1	2400	-5.64	-13.91	-6.18	-7.80	-9.91	-1.99
	2420	-4.94	-13.30	-5.61	-6.95	-9.13	-1.21
	2440	-5.35	-13.76	-6.12	-7.43	-9.34	-1.68
	2460	-6.65	-15.09	-7.47	-9.02	-10.37	-3.15
	2480	-8.59	-16.70	-9.37	-11.05	-11.85	-5.15

Antenna Gain Chart (Antenna1)

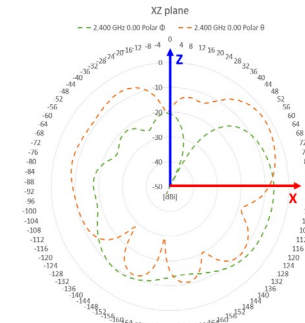
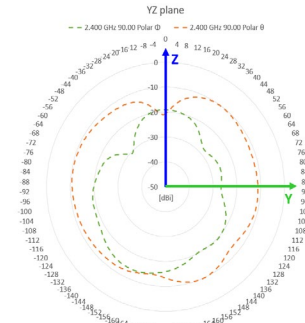
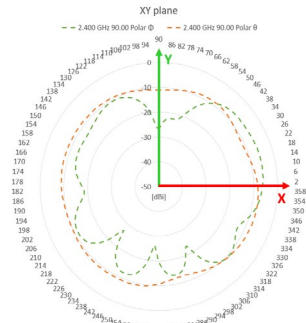
Frequency [MHz]

XY plane

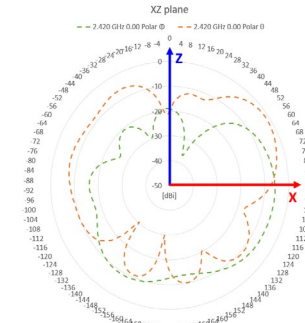
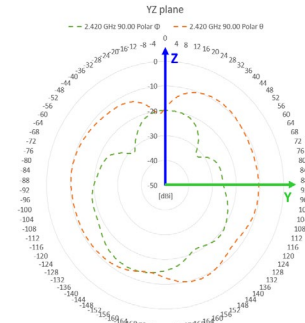
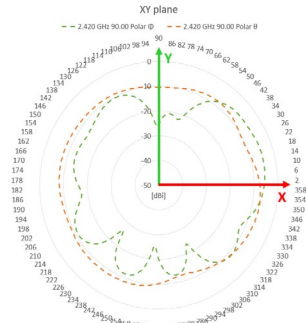
YZ plane

XZ plane

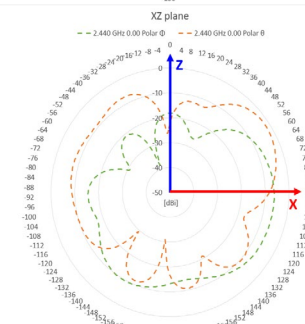
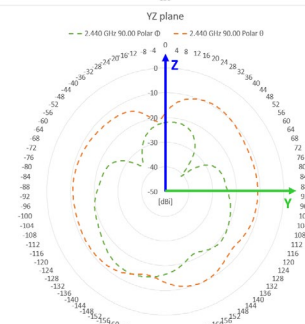
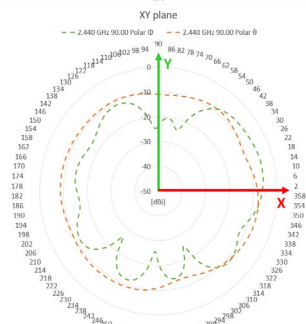
2400



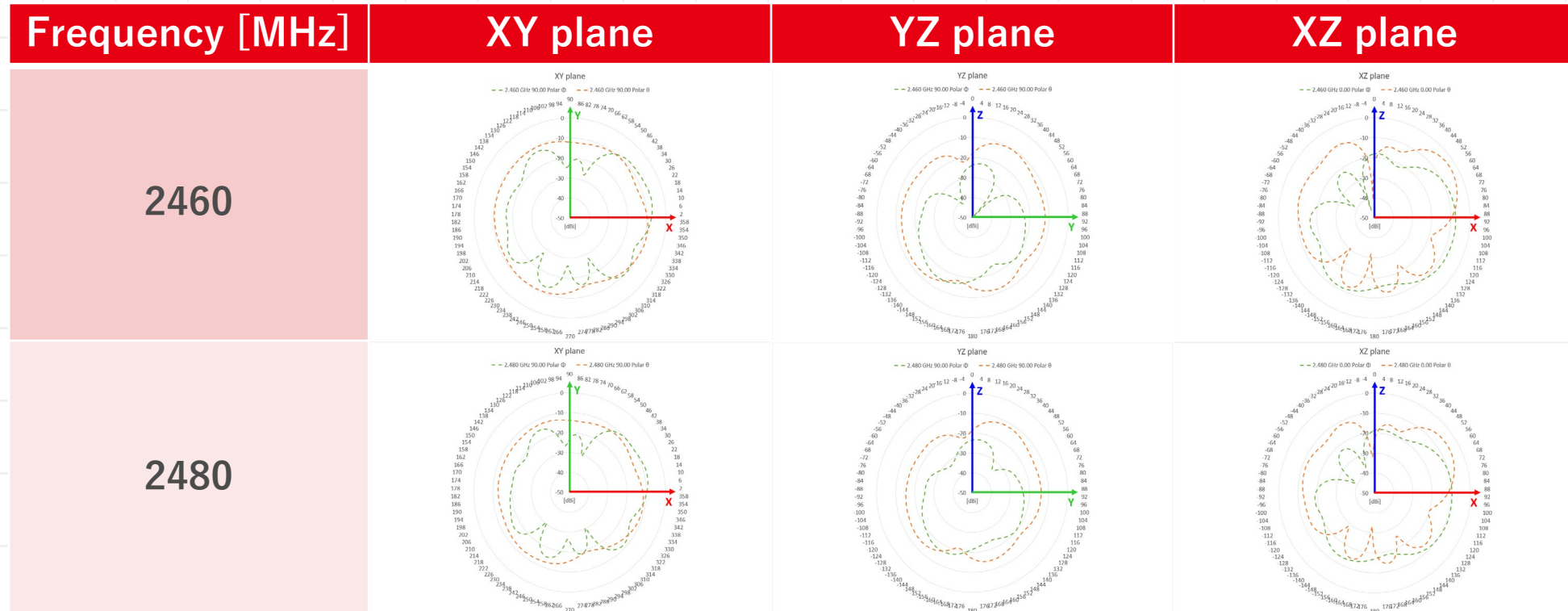
2420



2440



Antenna Gain Chart (Antenna1)



Antenna Gain (Antenna2)

ANT	Frequency [MHz]	E ϕ [dBi]			E θ [dBi]		
		XY plane	YZ plane	XZ plane	XY plane	YZ plane	XZ plane
Antenna2	2400	-9.35	-11.36	-6.48	-6.07	-7.84	-3.07
	2420	-9.35	-10.52	-5.85	-5.88	-7.91	-2.94
	2440	-9.62	-9.84	-5.44	-5.91	-7.15	-3.23
	2460	-9.76	-9.25	-4.99	-6.08	-6.33	-3.47
	2480	-10.21	-8.71	-4.71	-6.57	-5.77	-3.78
	5150	-4.16	0.60	-2.54	-5.48	-2.34	-0.96
	5250	-4.83	1.56	-2.07	-4.22	-2.40	-0.05
	5350	-6.09	1.64	-4.17	-4.26	-5.73	1.48
	5450	-7.37	-0.17	-6.06	-5.95	-7.89	0.90
	5550	-10.35	-1.08	-4.93	-7.42	-8.65	0.41
	5650	-9.38	-0.62	-6.76	-8.27	-8.96	-0.75
	5750	-8.63	-0.77	-5.08	-6.76	-5.92	-2.02
	5850	-8.30	1.20	-4.10	-5.78	-4.69	-0.97

Antenna Gain Chart (Antenna2)

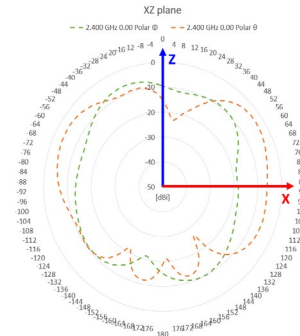
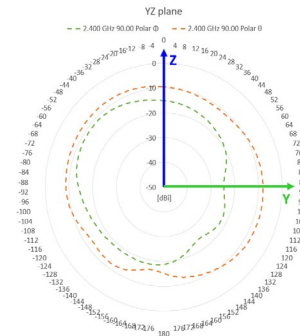
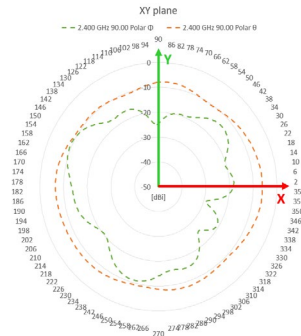
Frequency [MHz]

XY plane

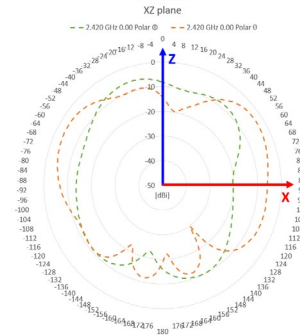
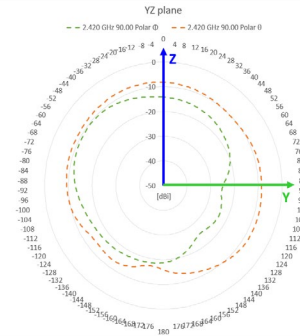
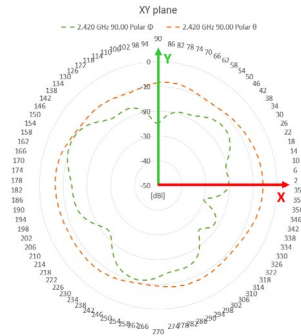
YZ plane

XZ plane

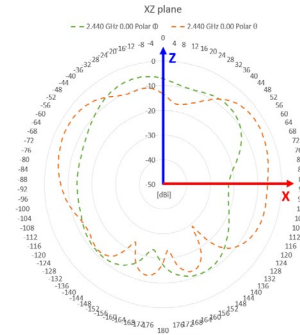
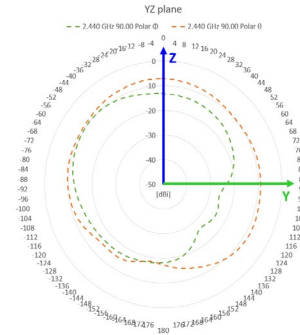
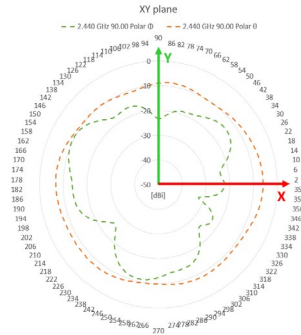
2400



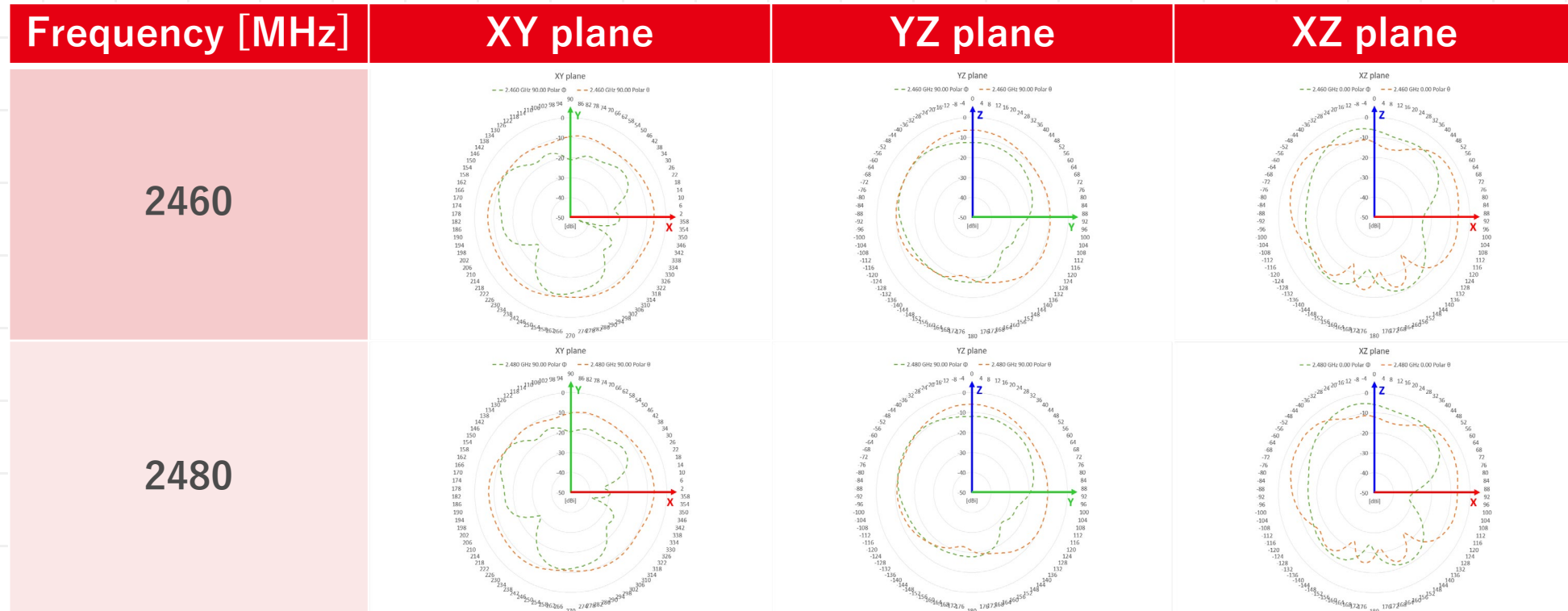
2420



2440



Antenna Gain Chart (Antenna2)



Antenna Gain Chart (Antenna2)

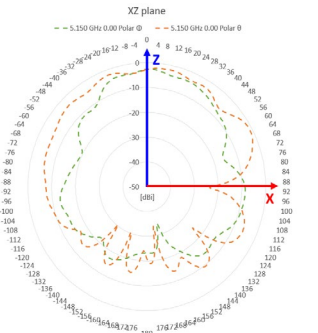
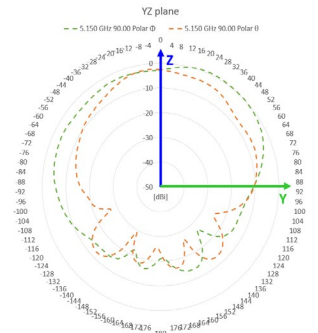
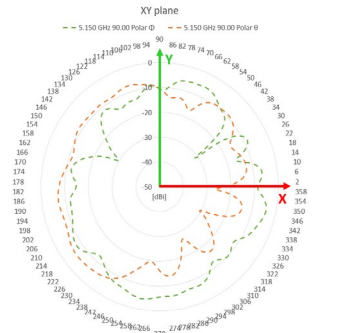
Frequency [MHz]

XY plane

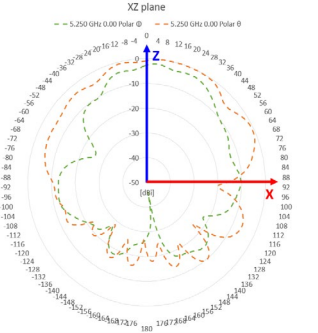
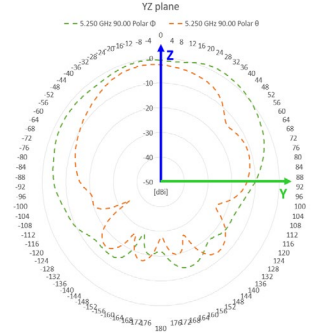
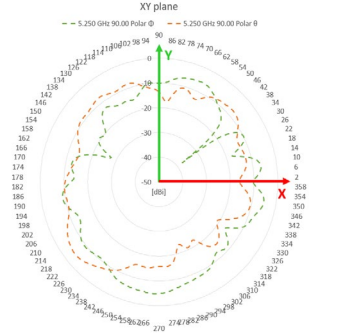
YZ plane

XZ plane

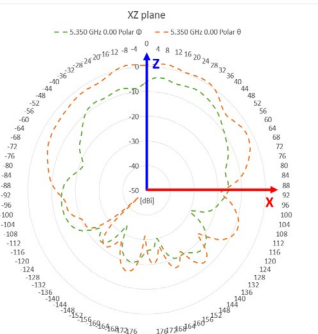
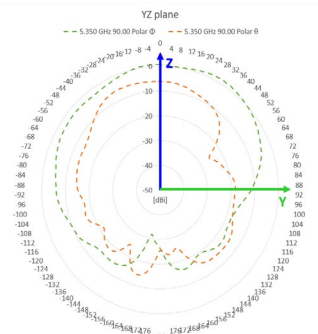
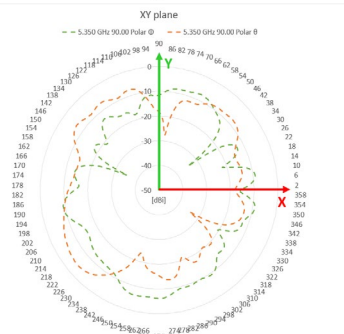
5150



5250



5350



Antenna Gain Chart (Antenna2)

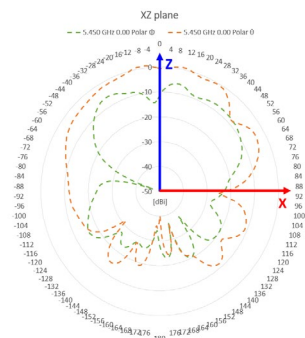
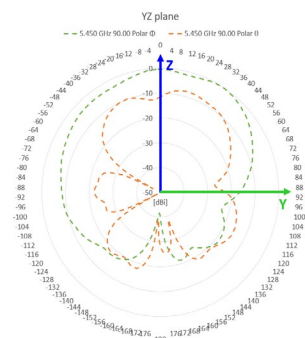
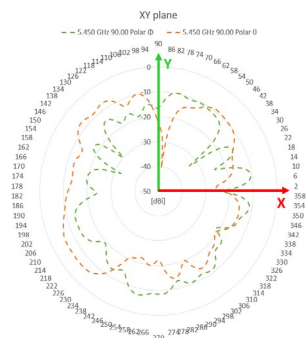
Frequency [MHz]

XY plane

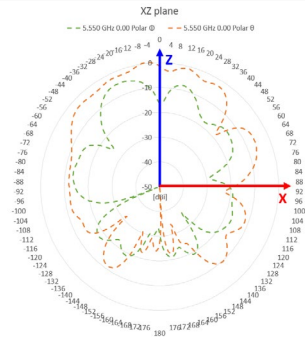
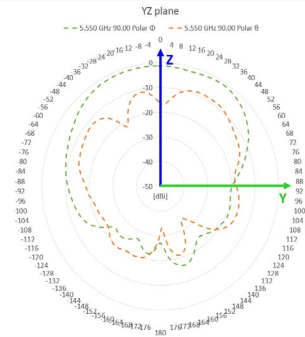
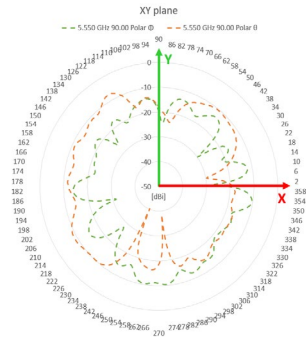
YZ plane

XZ plane

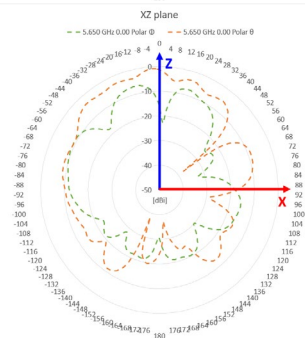
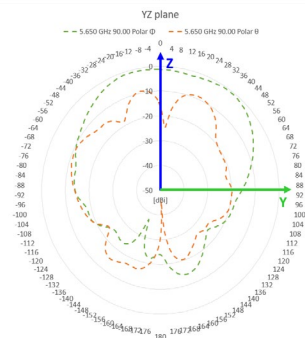
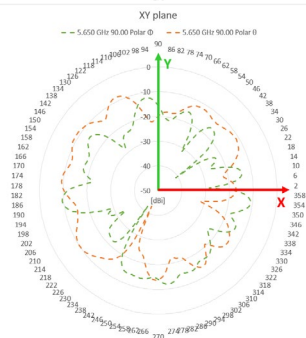
5450



5550



5650



Antenna Gain Chart (Antenna2)

