

PSA

PASSIVE SYSTEM ALLIANCE
WALSin TECHNOLOGY CORPORATION

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四川愛聯

Presented by

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Walsin Technology Corporation

2021/03/26

Version	Date	Description	Author
V01	2021/03/26	New Release	楊壽坤

OUTLINE

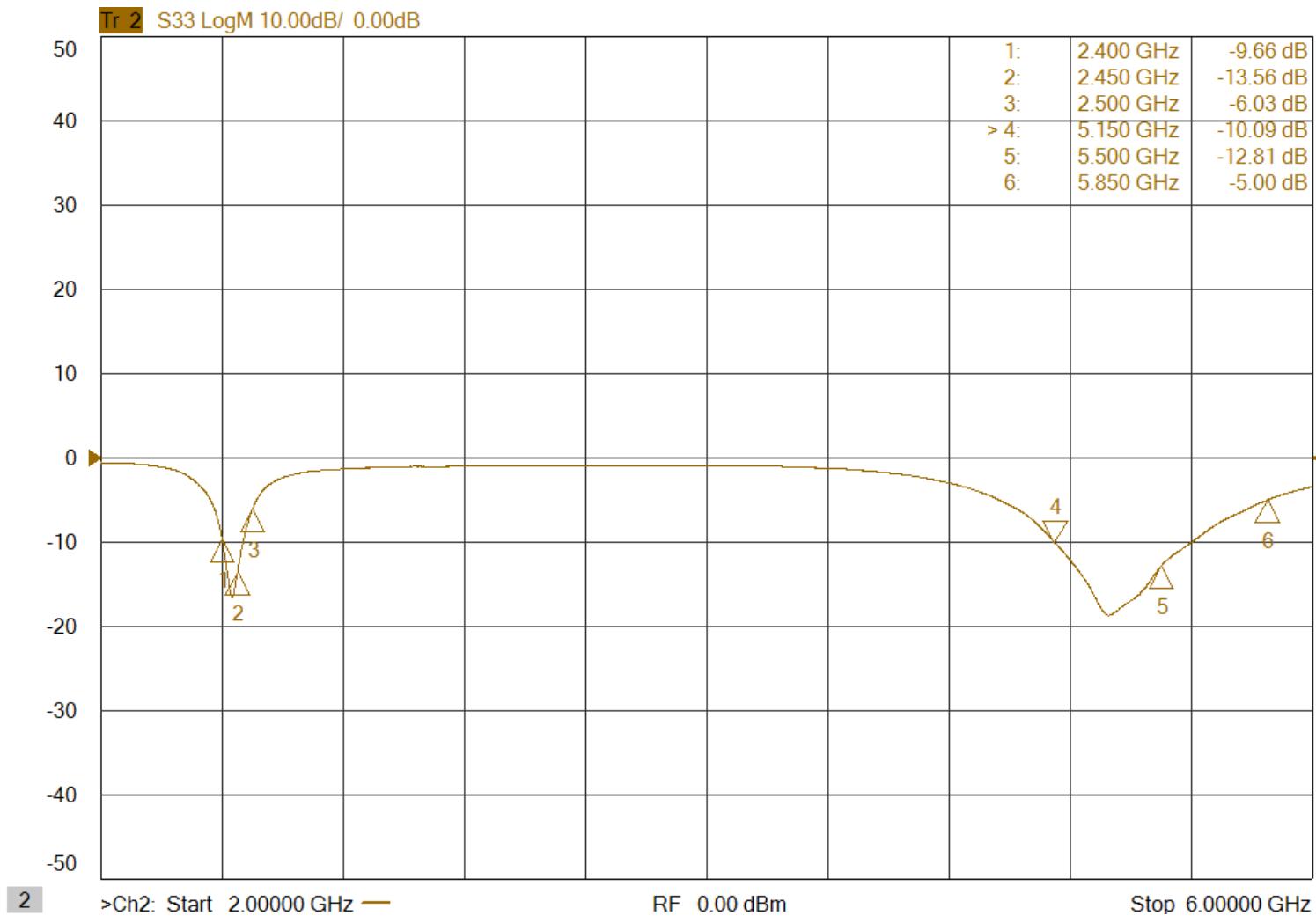
1. Antenna Characteristics

- 1.1 Return Loss & Isolation
- 1.2 Antenna Efficiency & Peak Gain
- 1.3 3D Pattern & 2D Radiation Patterns
- 1.4 Summary Table

1. Antenna Characteristics

WiFi_ANT 1

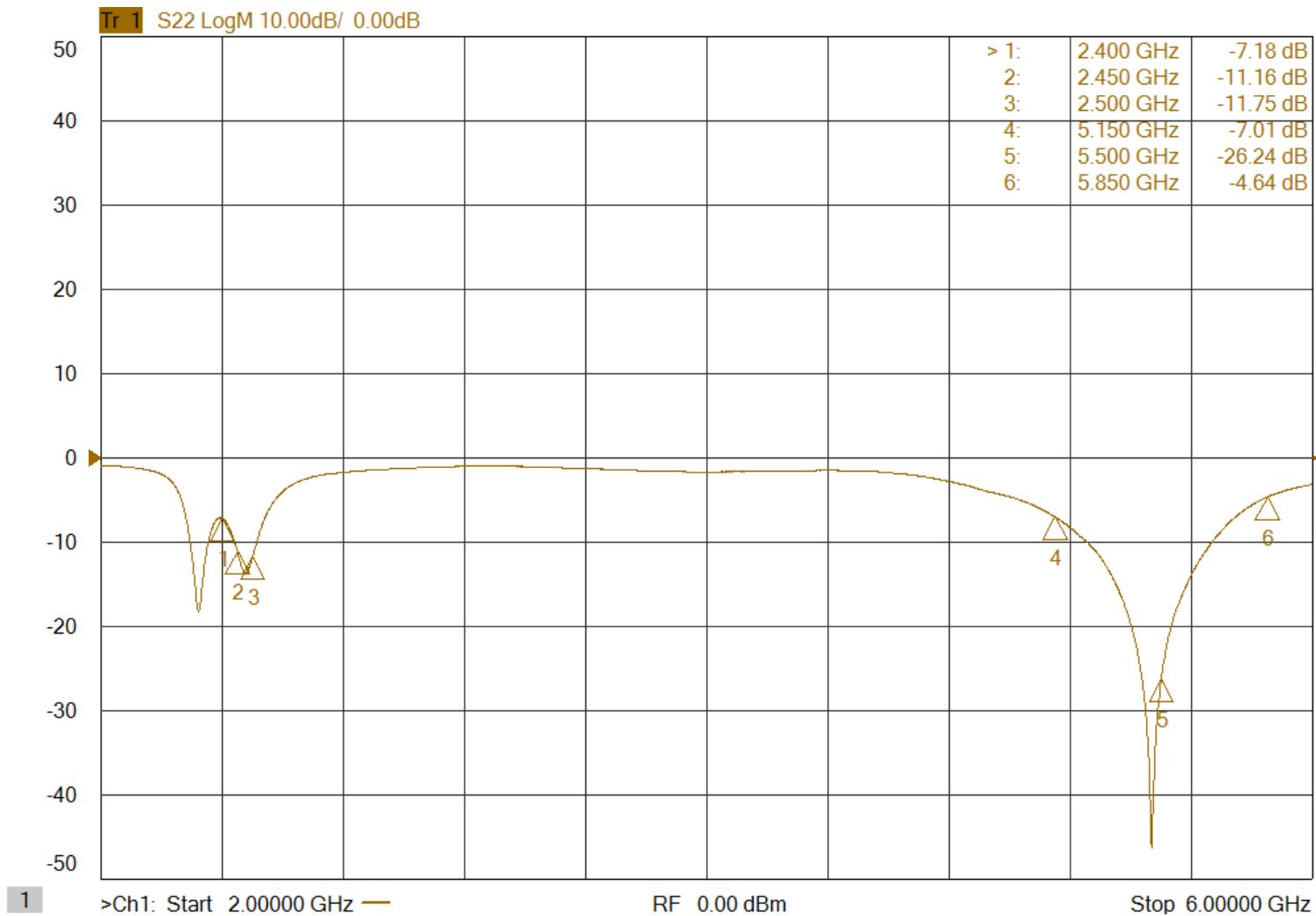
1.1 Return Loss



1. Antenna Characteristics

WiFi_ANT 2

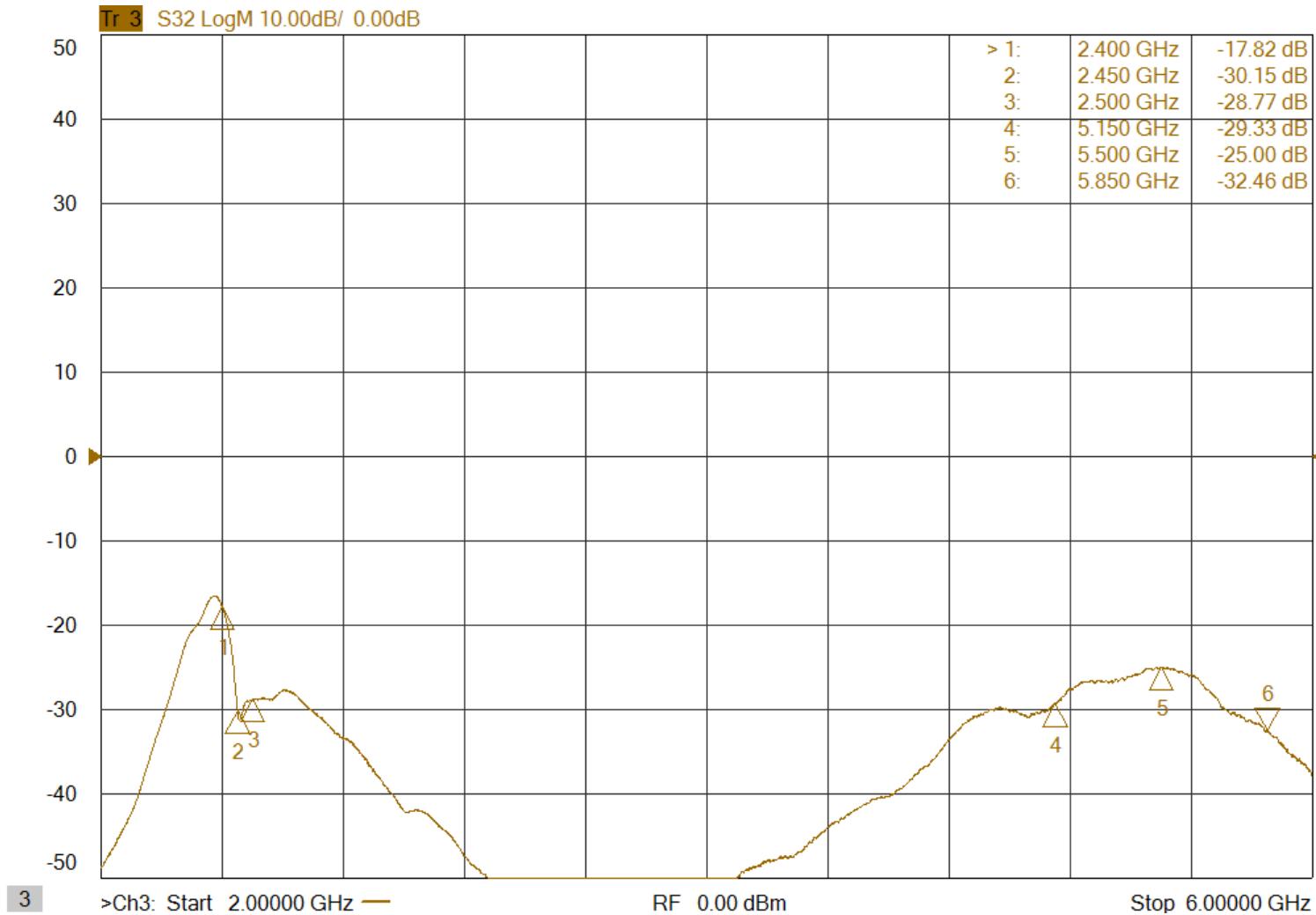
1.1 Return Loss



1. Antenna Characteristics

WiFi_ANT 1 vs. WiFi_ANT 2

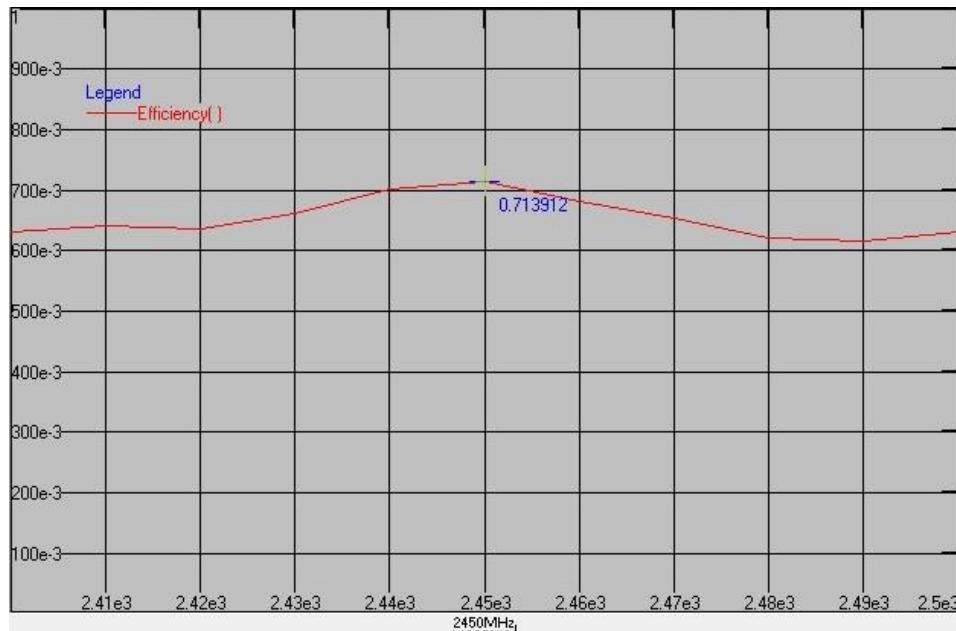
1.1 Isolation



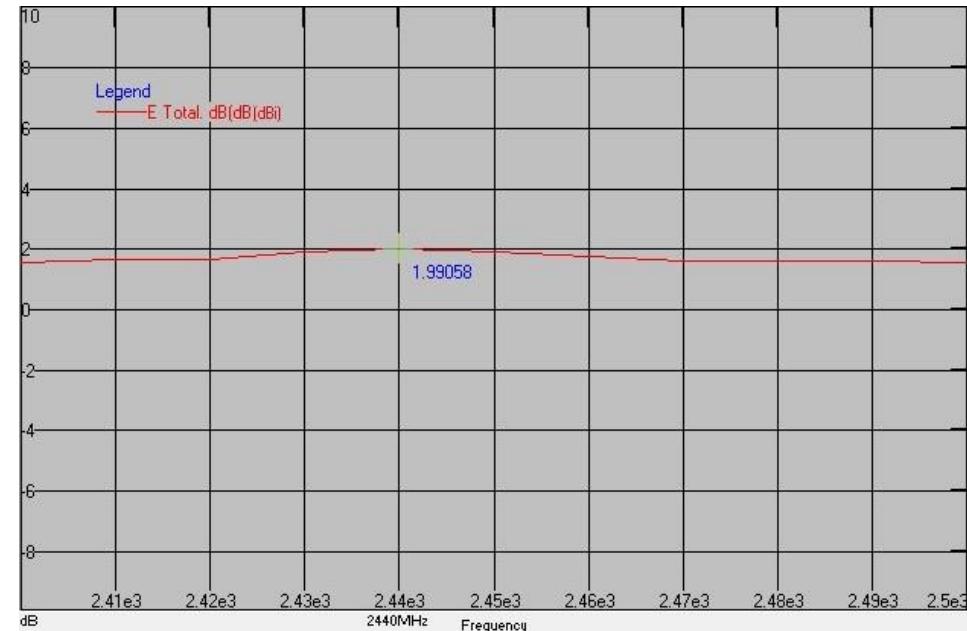
1. Antenna Characteristics

WiFi_ANT 1 (2G)

1.2 Antenna Efficiency and Peak Gain



Maximum Efficiency at 2450 MHz 71.39%

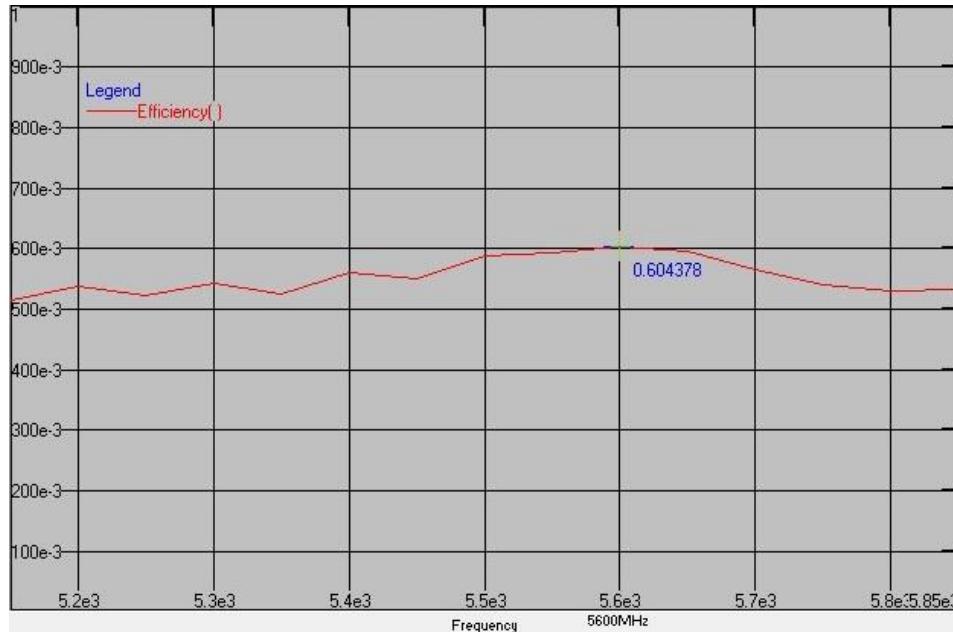


Maximum Peak Gain at 2440 MHz : 1.99 dBi

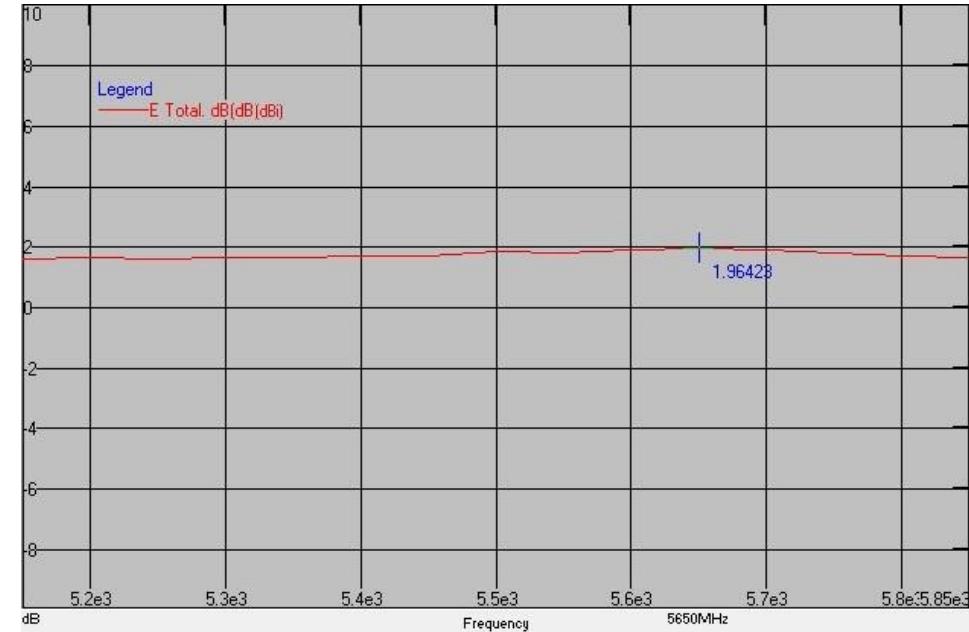
1. Antenna Characteristics

WiFi_ANT 1 (5G)

1.2 Antenna Efficiency and Peak Gain



Maximum Efficiency at 5600 MHz : 60.44 %

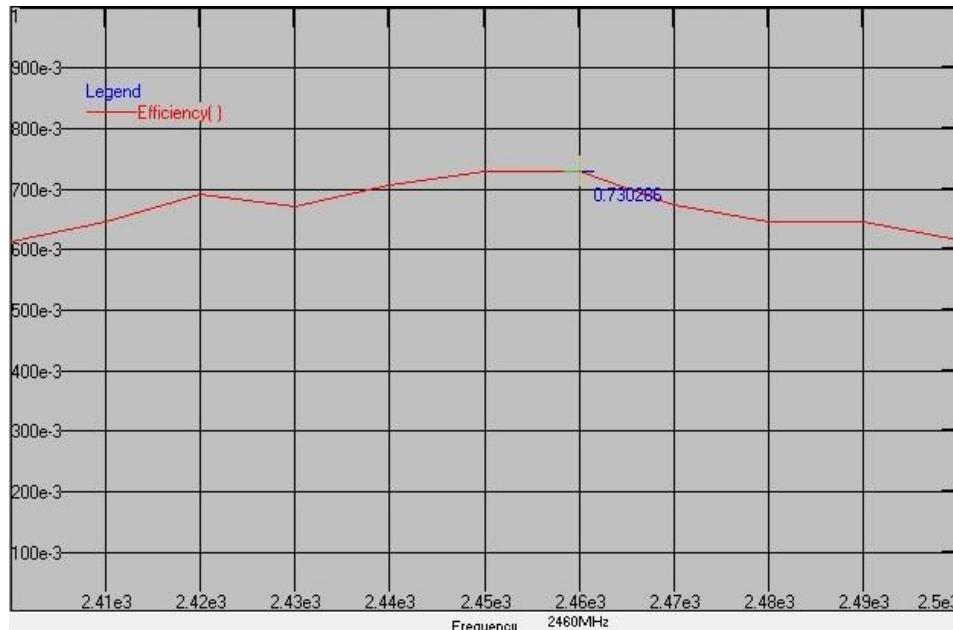


Maximum Peak Gain at 5650 MHz : 1.96 dBi

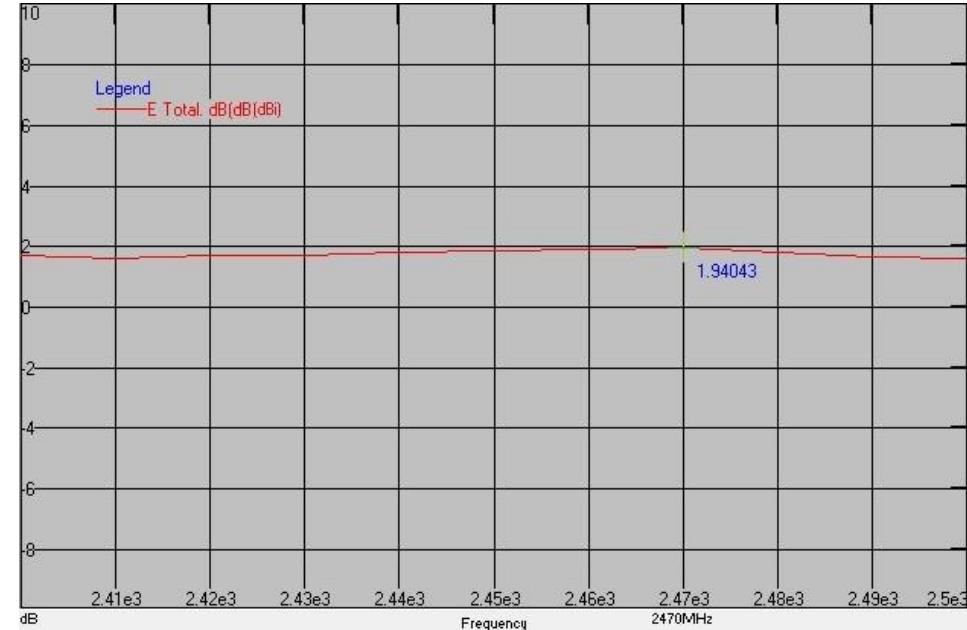
1. Antenna Characteristics

WiFi_ANT 2 (2G)

1.2 Antenna Efficiency and Peak Gain



Maximum Efficiency at 2460 MHz : 73.03 %

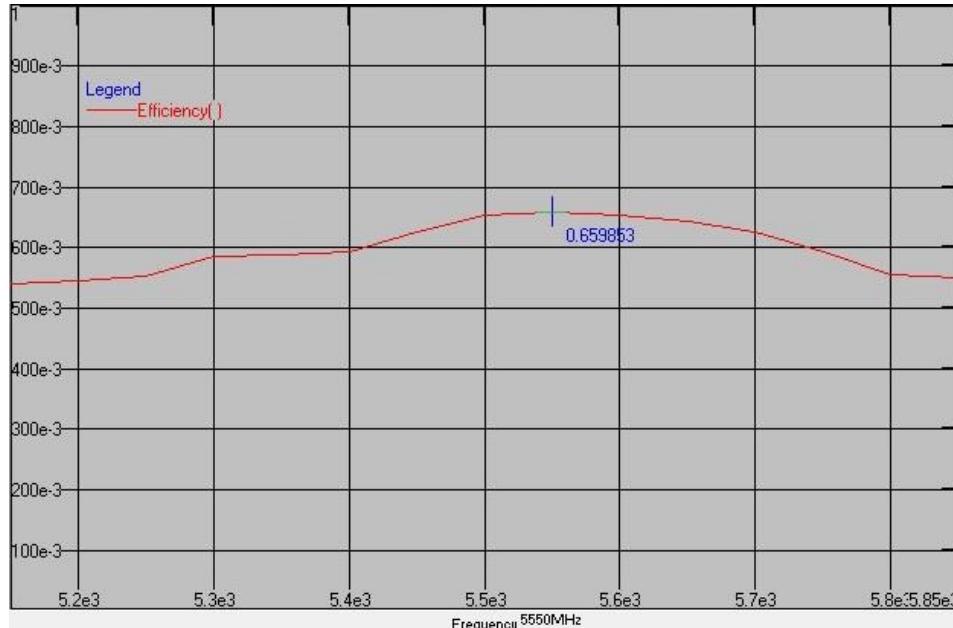


Maximum Peak Gain at 2470 MHz : 1.94 dBi

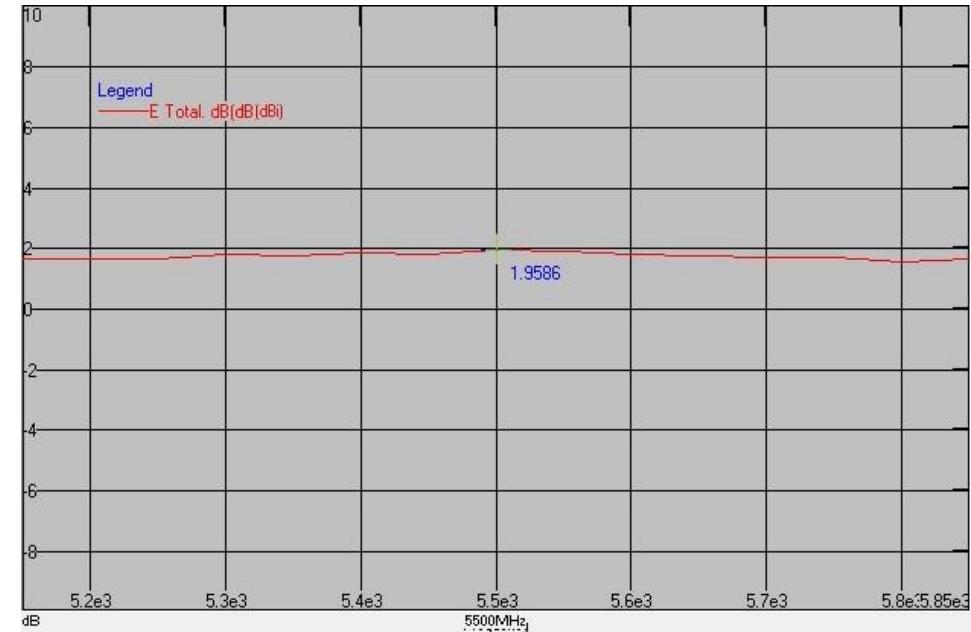
1. Antenna Characteristics

WiFi_ANT 2 (5G)

1.2 Antenna Efficiency and Peak Gain



Maximum Efficiency at 5550 MHz : 65.99 %

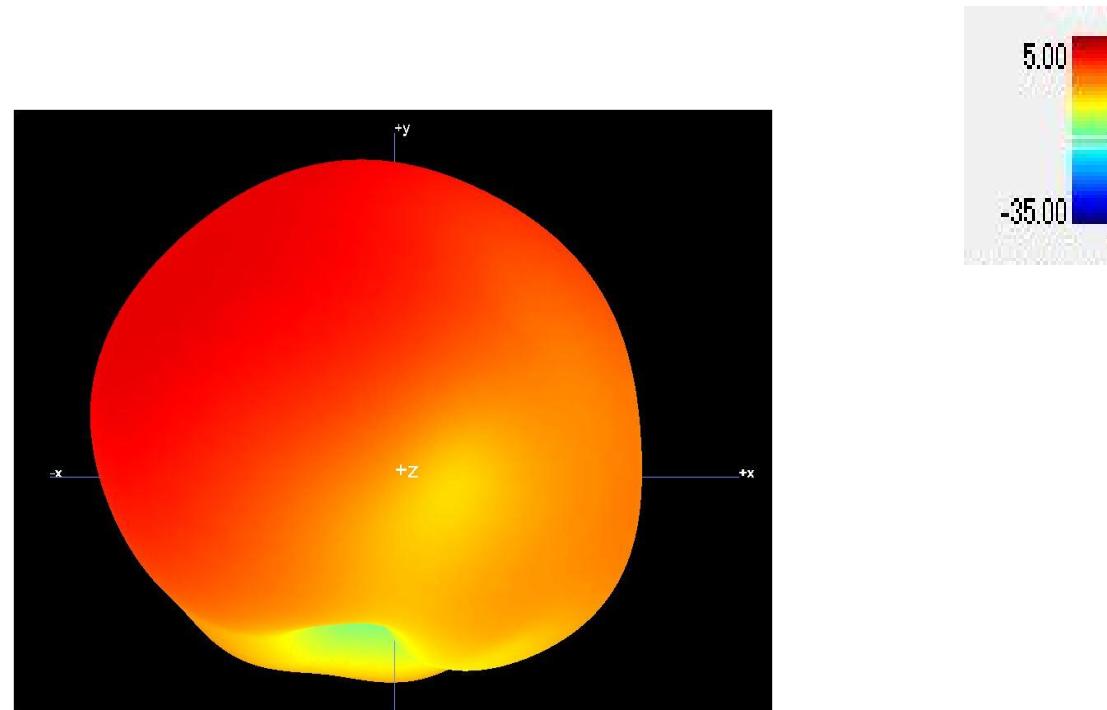


Maximum Peak Gain at 5500 MHz : 1.96 dBi

1. Antenna Characteristics

1.3 3D Patterns

WiFi_ANT 1 (2G)

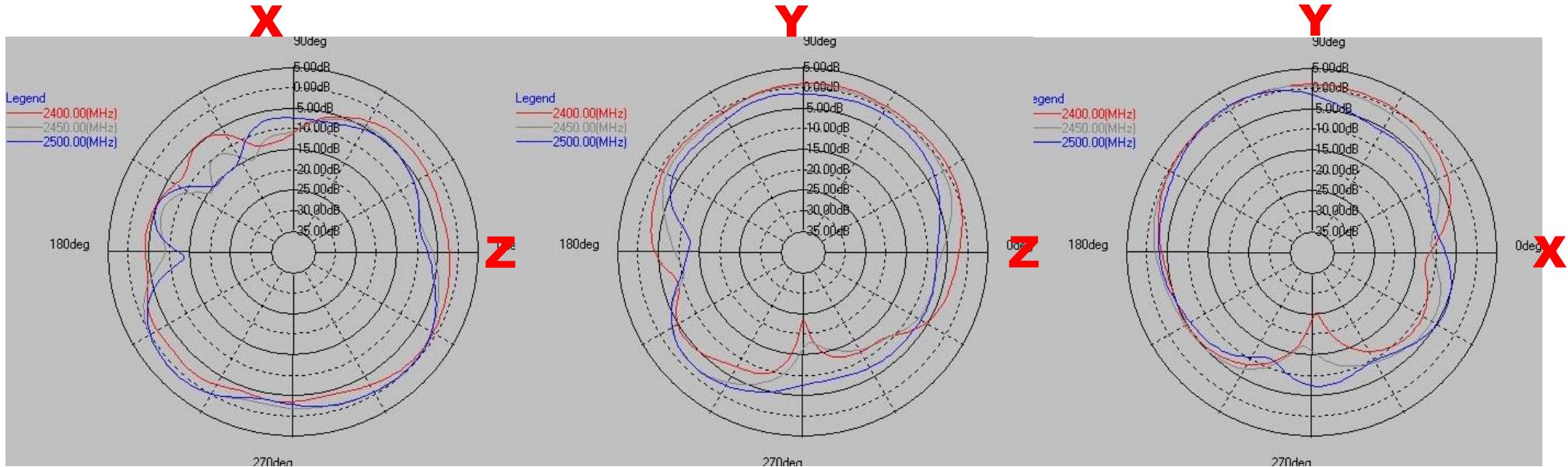


2450MHz

1. Antenna Characteristics

WiFi_ANT 1 (2G)

1.3 2D Radiation Patterns

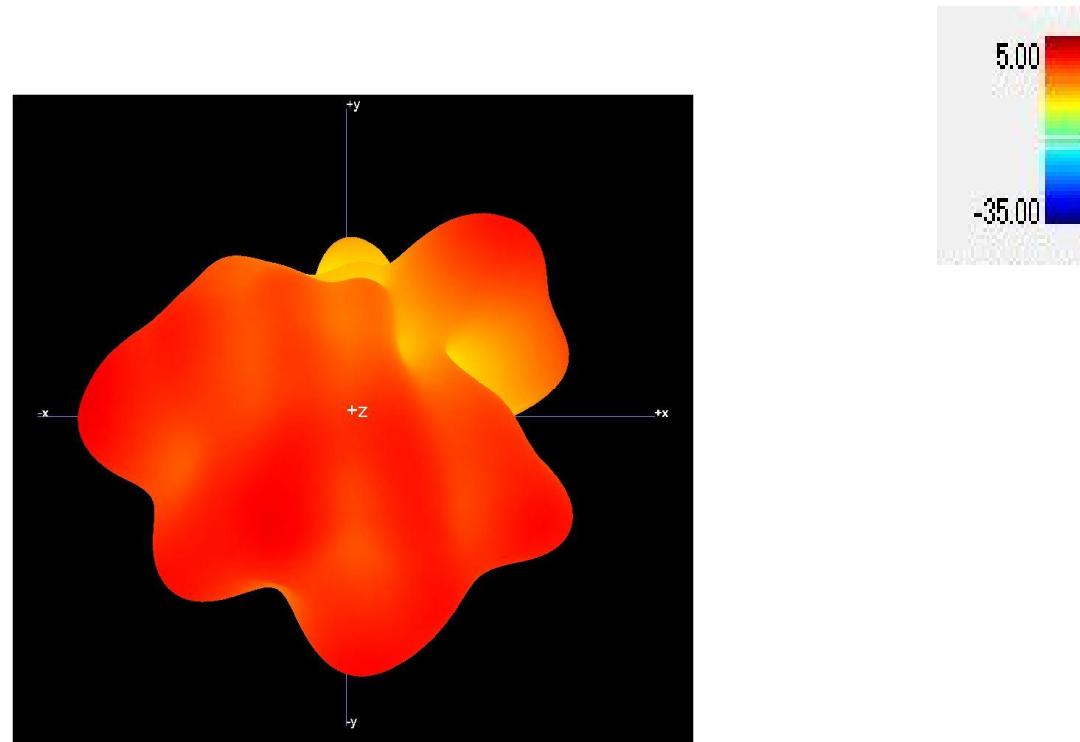


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	-0.70	-3.45	0.95	-2.40	0.79	-2.98
2450	1.02	-3.50	0.45	-3.18	0.83	-3.20
2500	1.09	-3.70	-1.32	-4.20	0.85	-4.18

1. Antenna Characteristics

1.3 3D Patterns

WiFi_ANT 1 (5G)

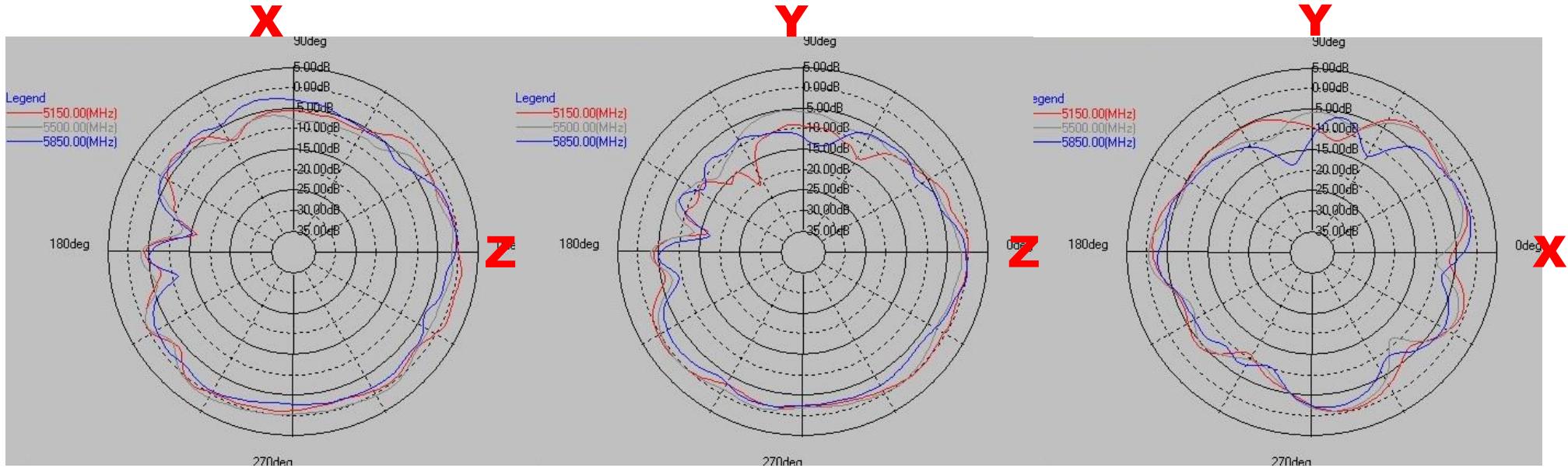


5500MHz

1. Antenna Characteristics

WiFi_ANT 1 (5G)

1.3 2D Radiation Patterns

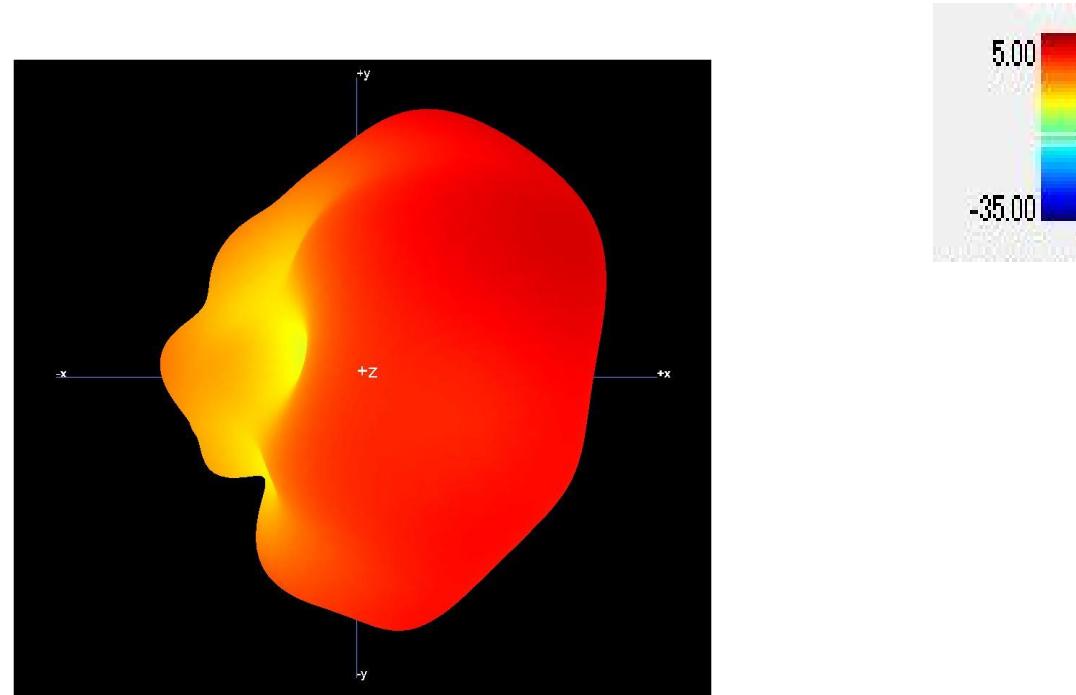


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	1.18	-2.34	0.66	-3.18	-0.48	-3.72
5500	1.04	-2.48	0.42	-3.22	-0.50	-4.26
5850	-0.20	-3.12	0.21	-4.35	-0.72	-5.24

1. Antenna Characteristics

1.3 3D Patterns

WiFi_ANT 2 (2G)

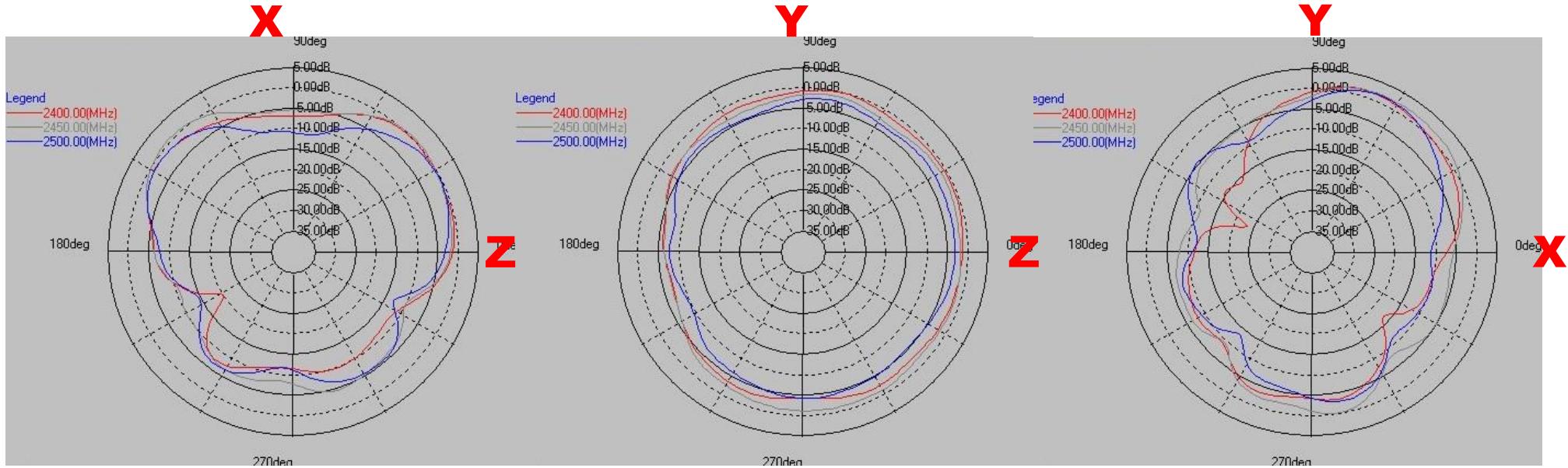


2450MHz

1. Antenna Characteristics

WiFi_ANT 2 (2G)

1.3 2D Radiation Patterns

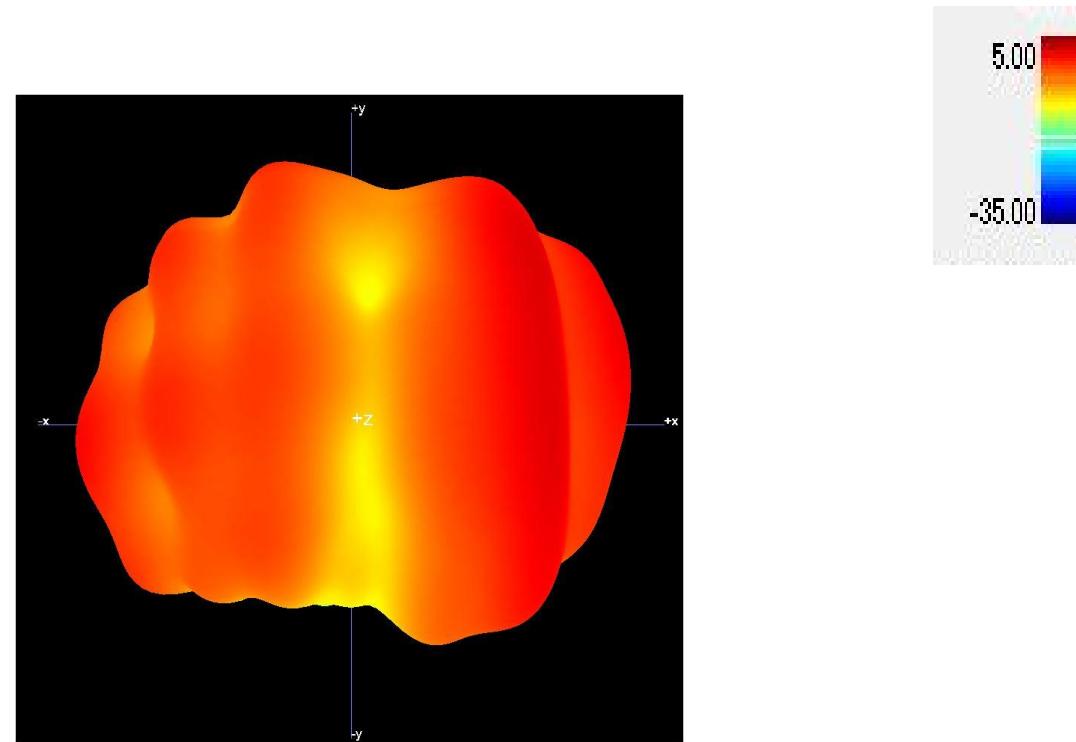


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	-0.15	-4.52	-0.36	-2.55	1.46	-4.33
2450	0.62	-3.59	-1.24	-2.57	1.84	-2.83
2500	-0.27	-5.20	-2.65	-4.77	1.58	-4.93

1. Antenna Characteristics

1.3 3D Patterns

WiFi_ANT 2 (5G)

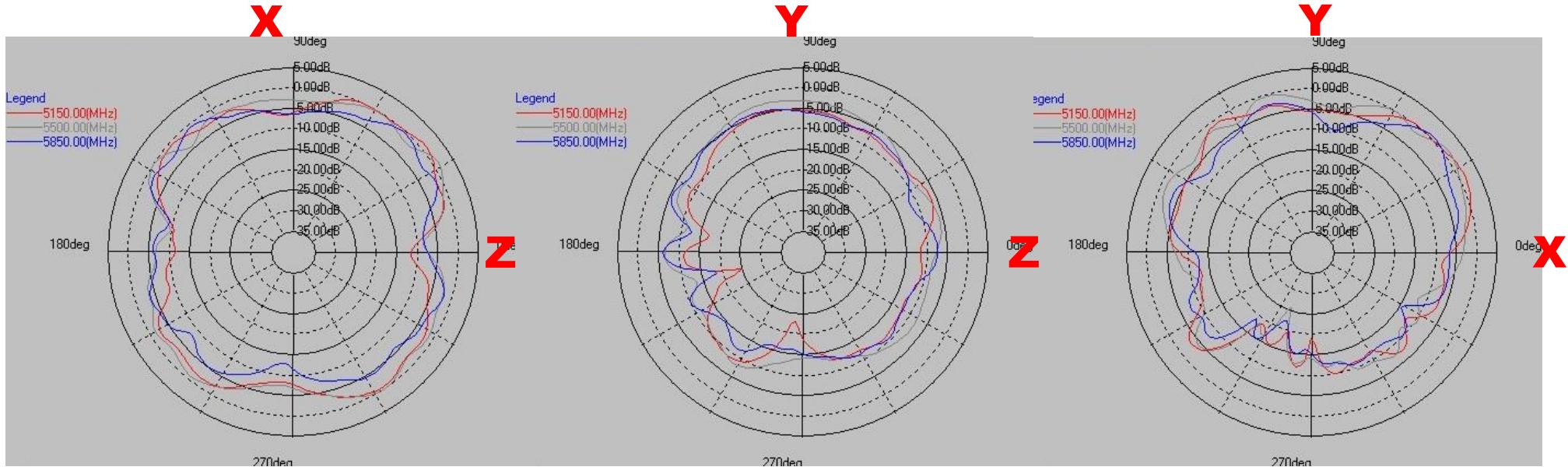


5500MHz

1. Antenna Characteristics

WiFi_ANT 2 (5G)

1.3 2D Radiation Patterns



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	1.20	-3.18	-5.00	-9.36	1.53	-4.59
5500	1.27	-2.51	-2.91	-7.13	1.32	-4.09
5850	-0.43	-4.48	-4.52	-8.70	0.74	-6.13

1. Antenna Characteristics

1.4 Summary Table

WiFi_ANT 1						
Frequency [MHz]	2400	2450	2500	5150	5500	5850
Peak gain(dBi)	1.58	1.89	1.56	1.59	1.84	1.66
Efficiency(%)	63.01	71.39	63.16	51.56	58.70	53.17
WiFi_ANT 2						
Frequency [MHz]	2400	2450	2500	5150	5500	5850
Peak gain(dBi)	1.69	1.85	1.60	1.65	1.96	1.65
Efficiency(%)	61.42	72.92	61.64	54.12	65.42	55.12

Thank you

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