

LG-8822 Antenna test report

Lab. 20250423

佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

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2.1 Return Loss

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2.4 3 views of antenna & 2D Radiation Patterns



1 Measurement Information

Test information

Test Condition	Test Engineer	Test Equipment	Test Date
Radiated	Sam.Song	MVG StarLab KEYSIGHT E5063A	04.22.2025~04.23.2025



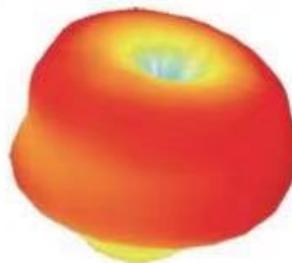
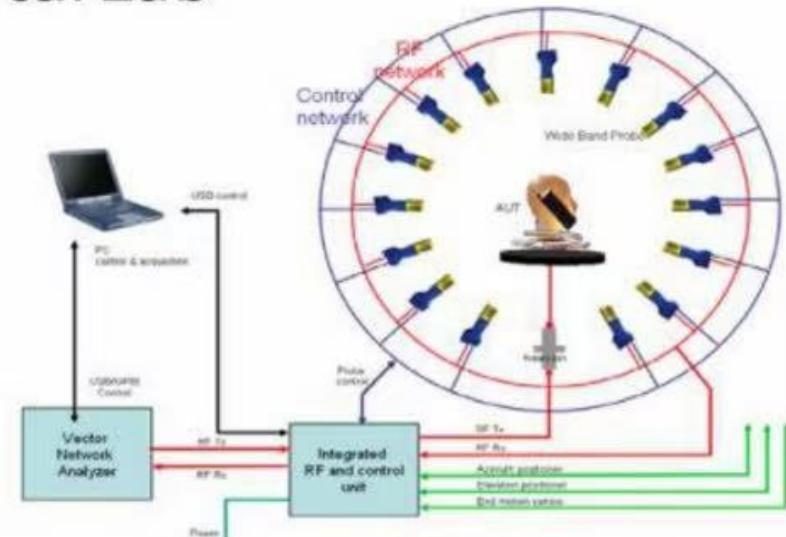
1 Measurement Information

Test Configuration



StarLab

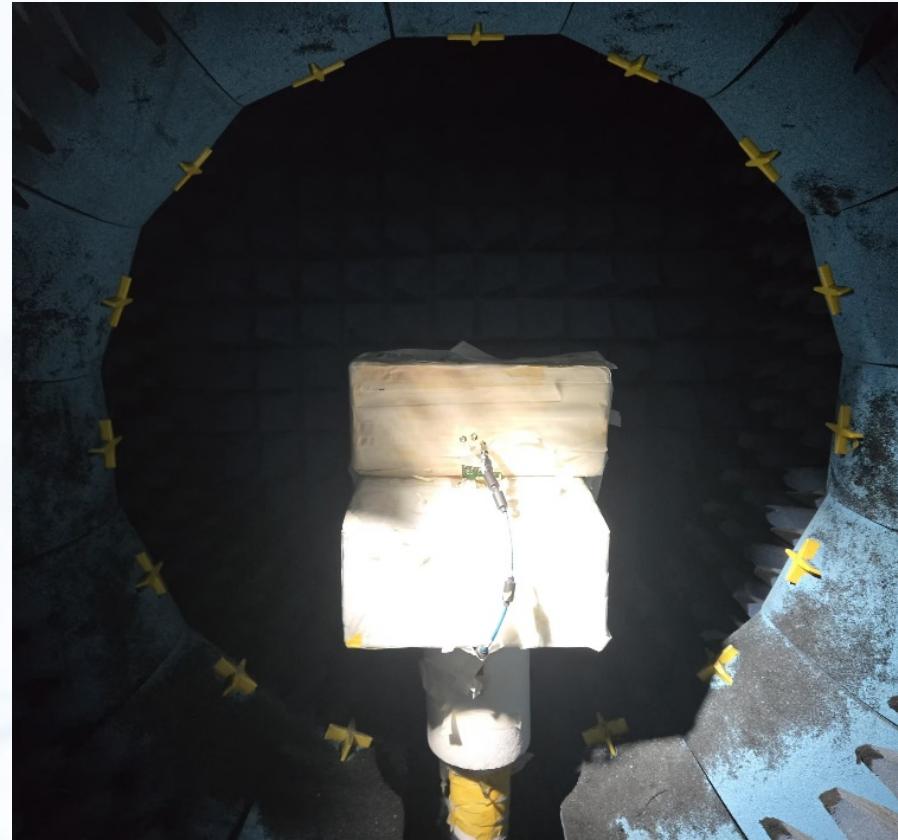
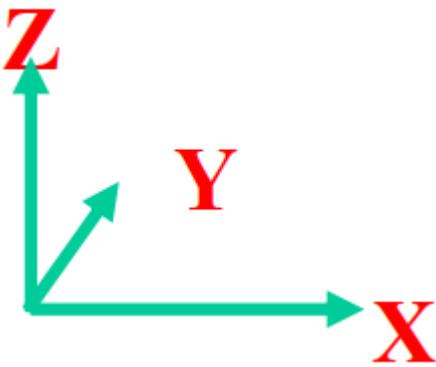
StarLab





1 Measurement Information

Reference Calibration

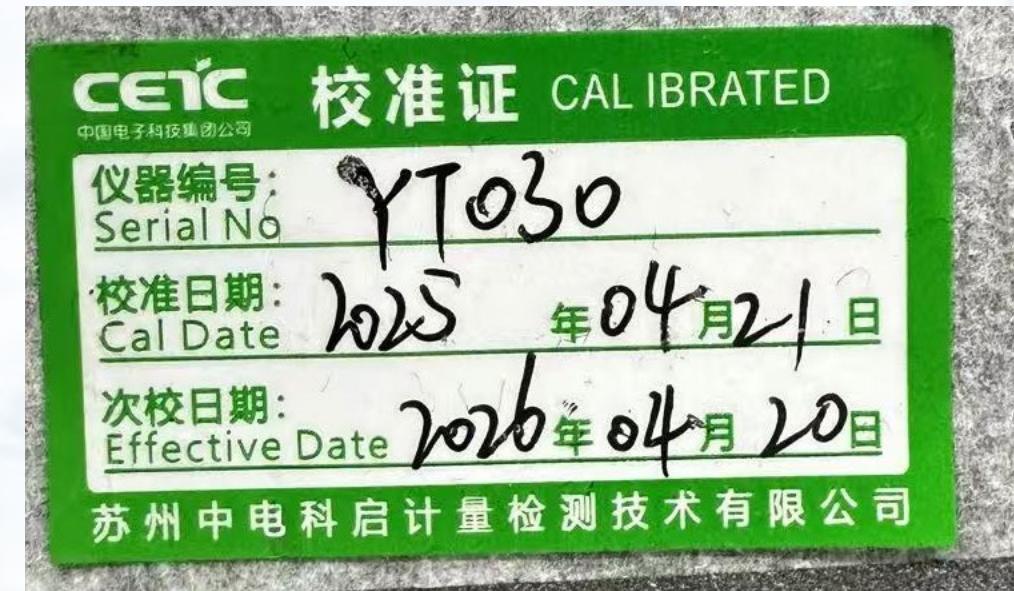
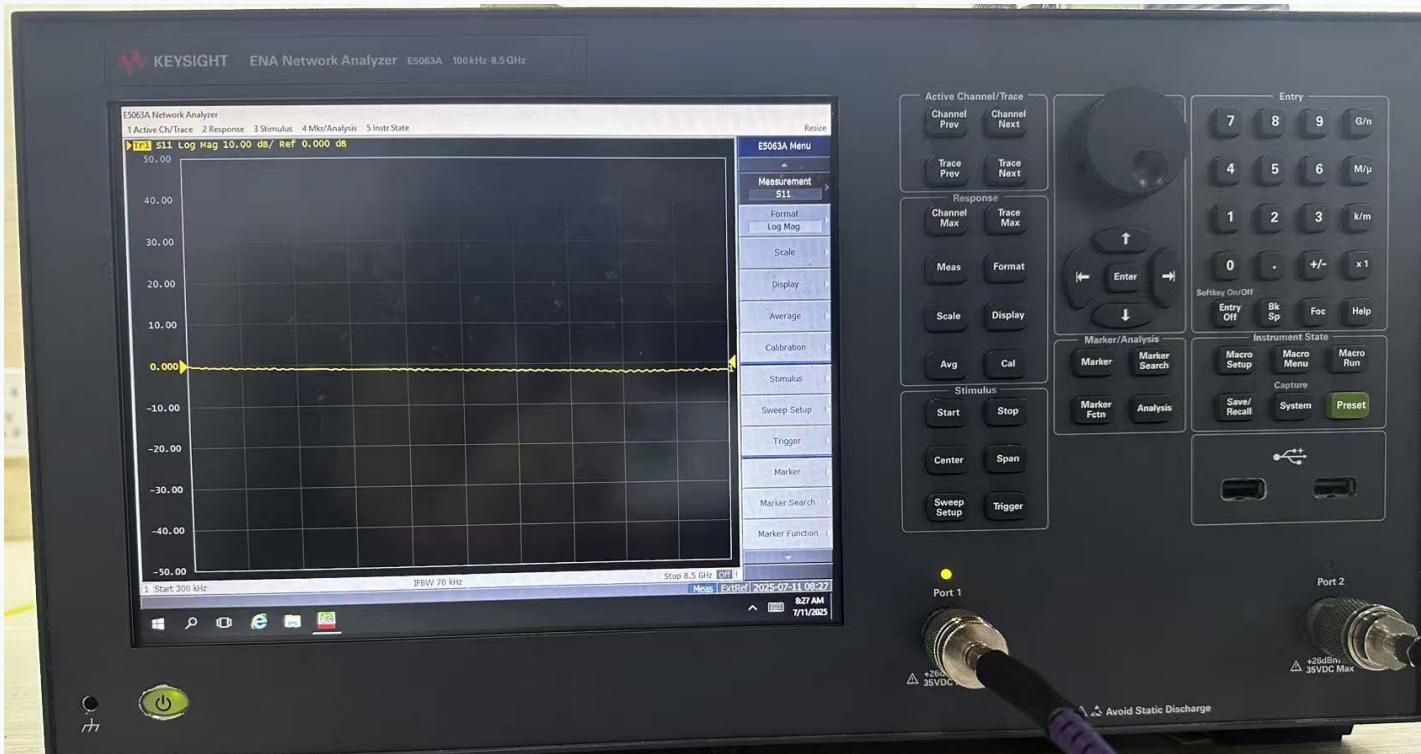




1

Measurement Information

Reference Calibration

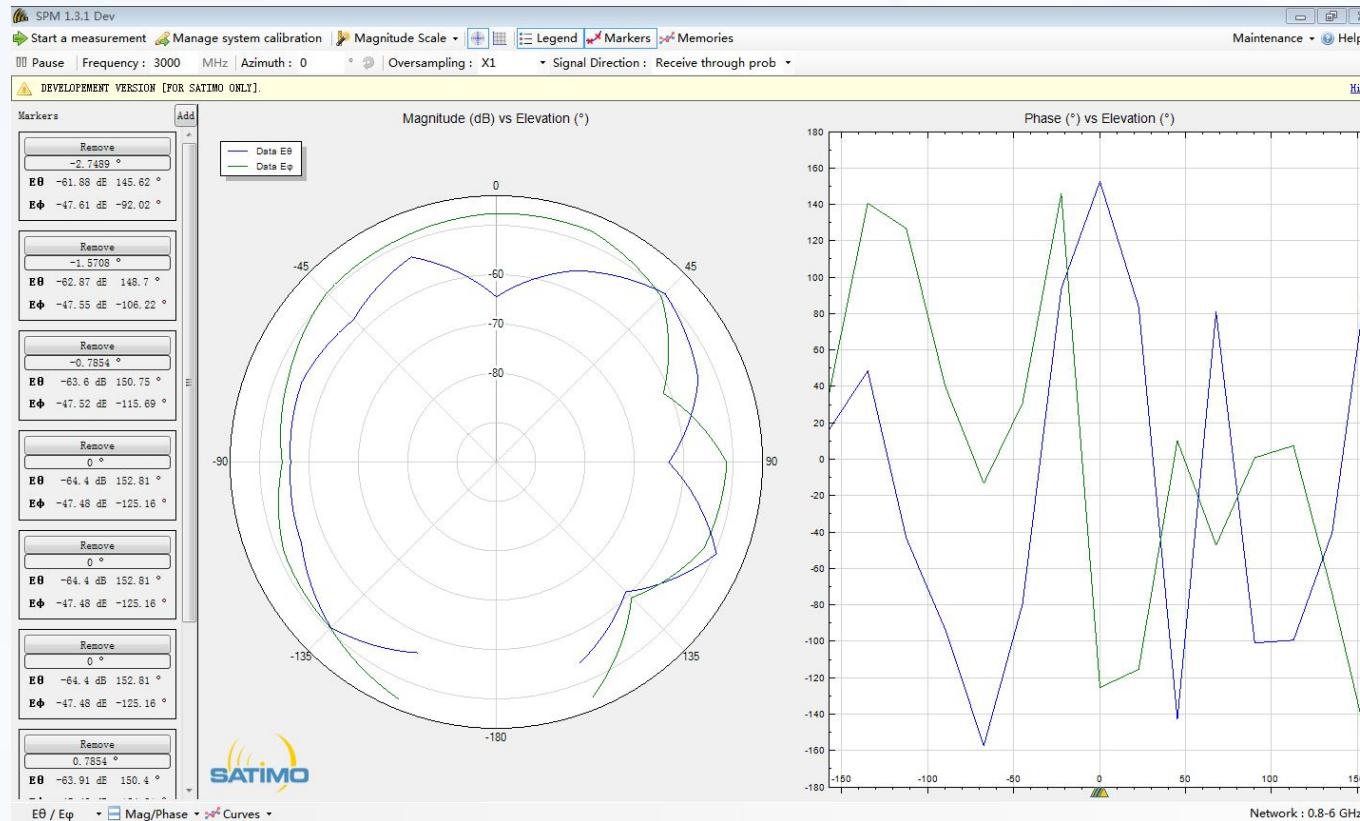




1

Measurement Information

Test Software





1 Measurement Information

Antenna Information overview

Antenna Characteristics	Details
Antenna Type & Form	Metal press Antenna
Antenna Gain (dBi)	Refer to Antenna Specification Sheet
Directionality	Omnidirectional
Antenna Polarization	Not applicable
Connection Type to Transmitter	Internal type
Manufacturer & Model	BT ANT : Manufacturer : InPAQ model : RFMTA050400NNAB001 WIFI2 ANT : Manufacturer : InPAQ model : RFMTA150400NNLB003 WIFI1 ANT : Manufacturer : InPAQ model : RFMTA100800NNLB001
Gain Measurement Institution	MVG StarLab KEYSIGHT E5063A

1 Measurement Information

Antenna Information overview

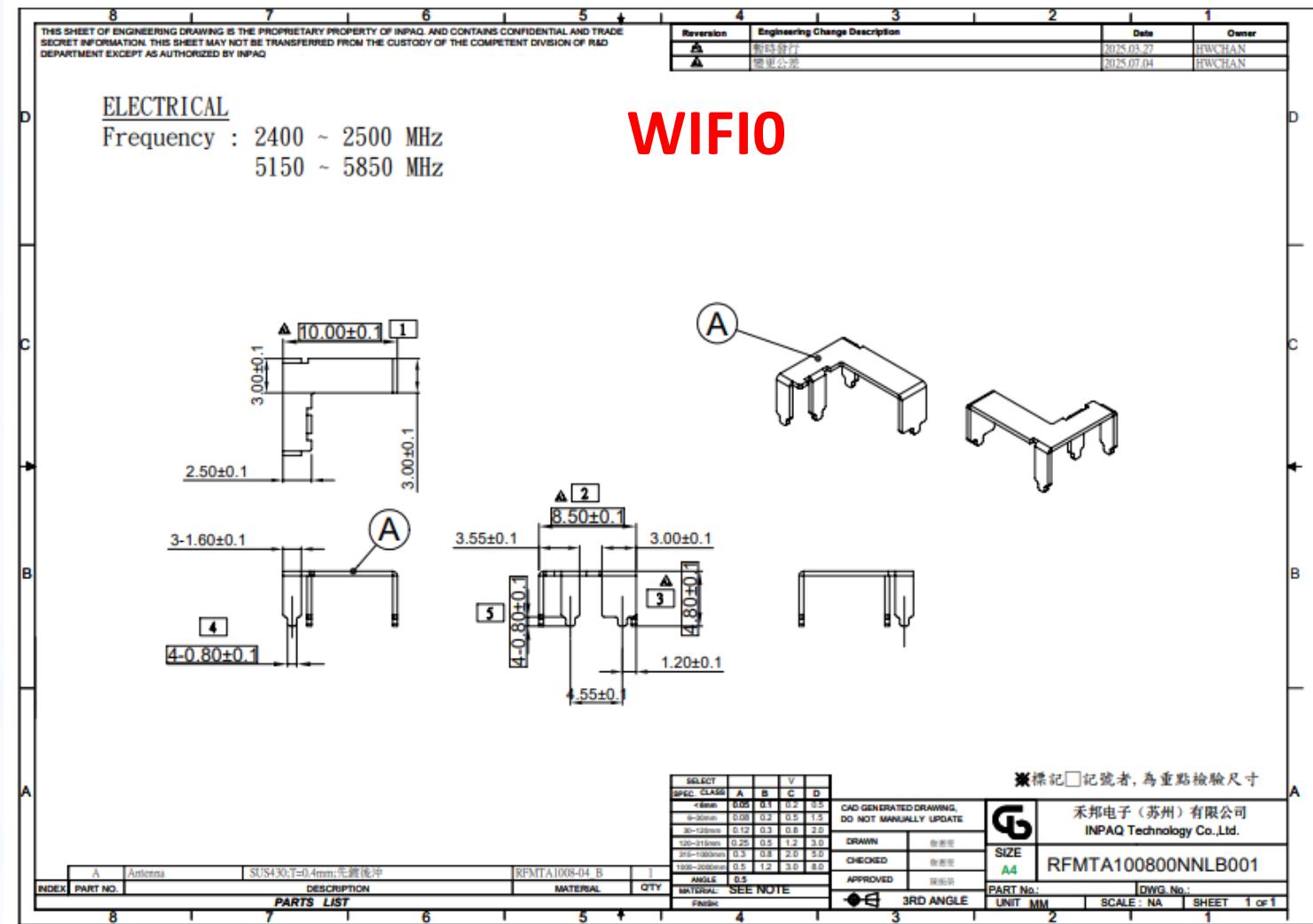
Ant. Position	Ant. Type	Dimensions
WIFI0	Metal press Antenna	10*8.5*4.8mm
WIFI1	Metal press Antenna	15.2*4*4.8mm
BT	Metal press Antenna	5.5*4.6*3.8mm



1 Measurement Information

1.2 Antenna Solution Detail

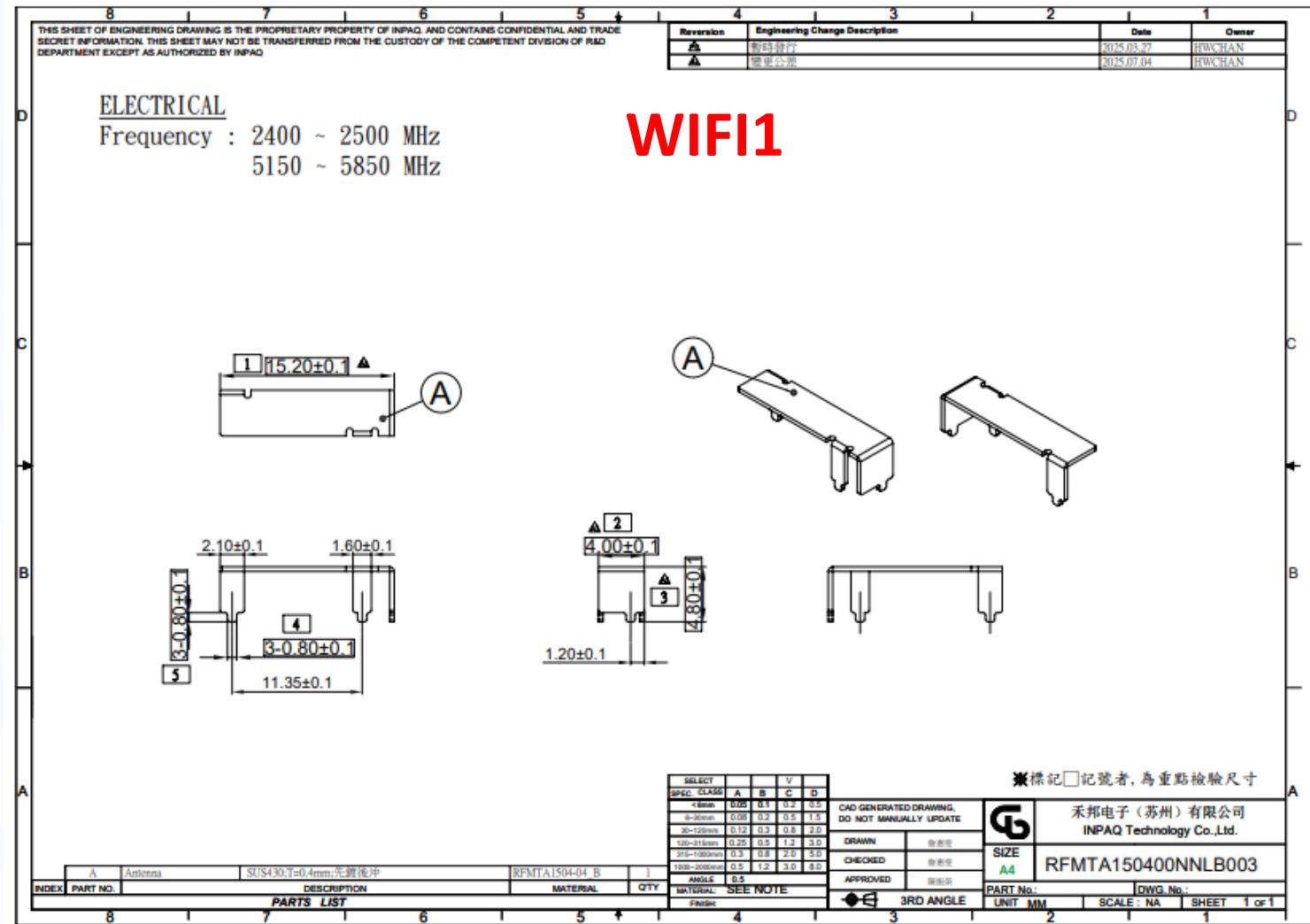
Antenna Information



1 Measurement Information

1.2 Antenna Solution Detail

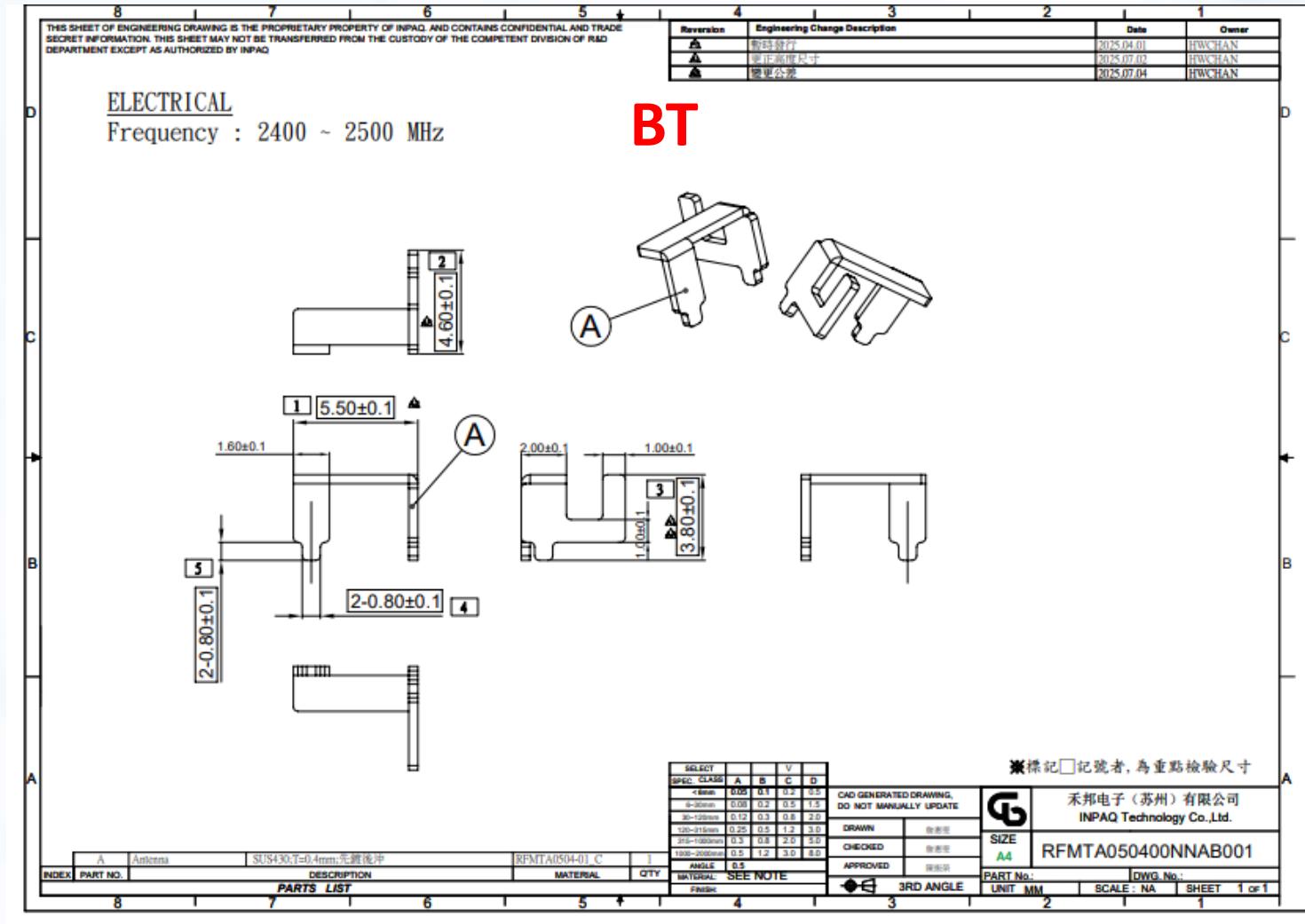
Antenna Information



1 Measurement Information

1.2 Antenna Solution Detail

Antenna Information



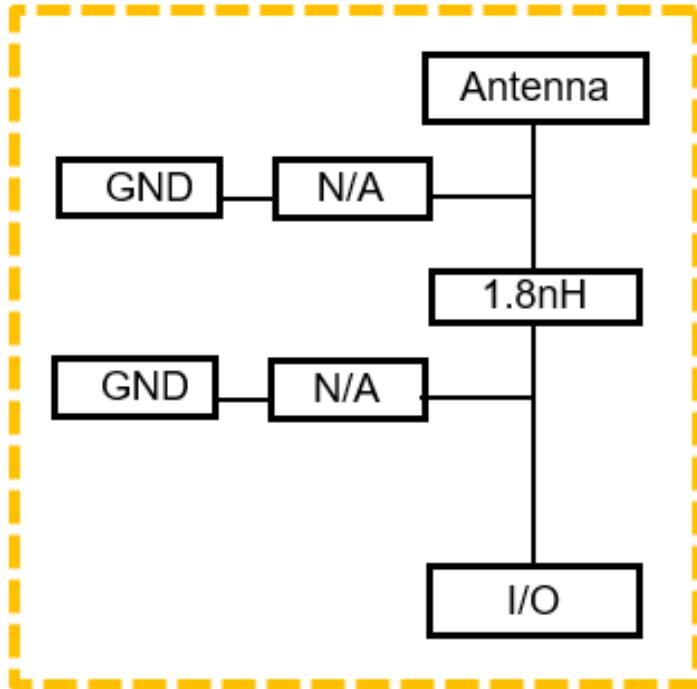
Measurement Information

1.2 Antenna Solution Detail

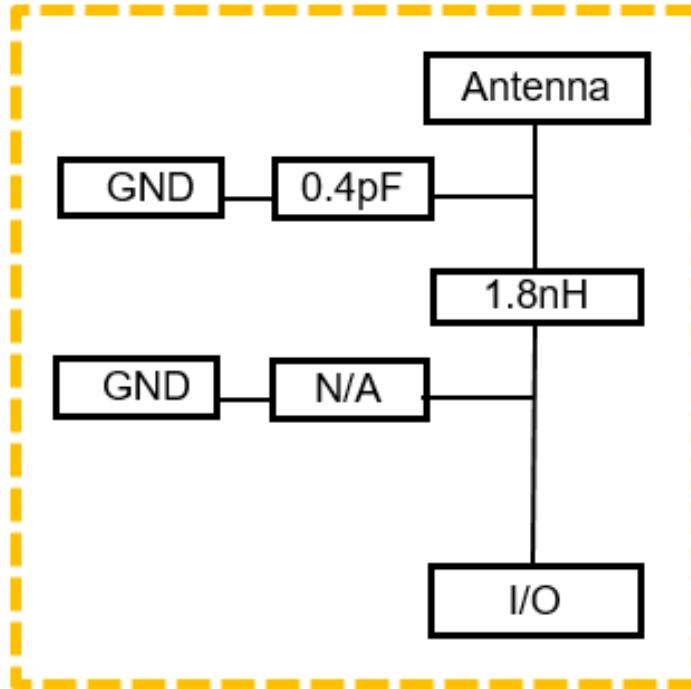
Matching values

隔离条均为0欧姆

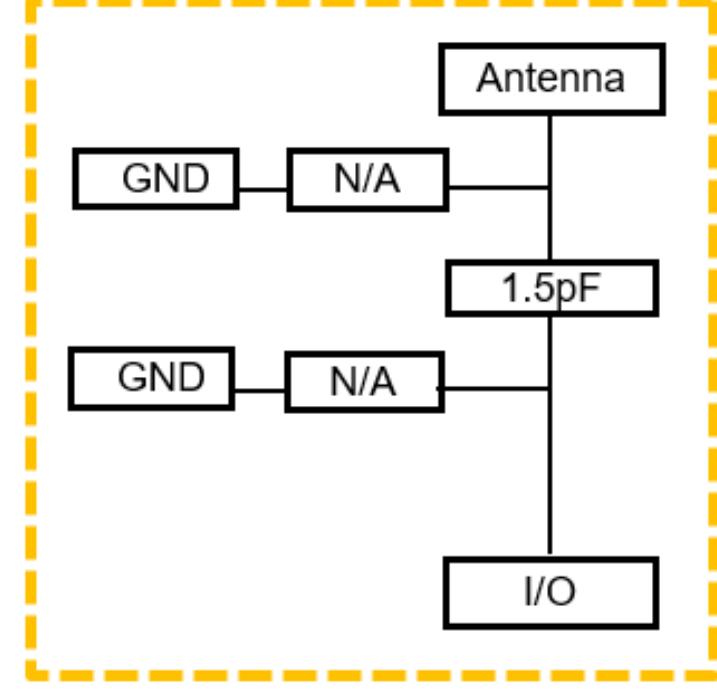
Ant0



Ant1



BT



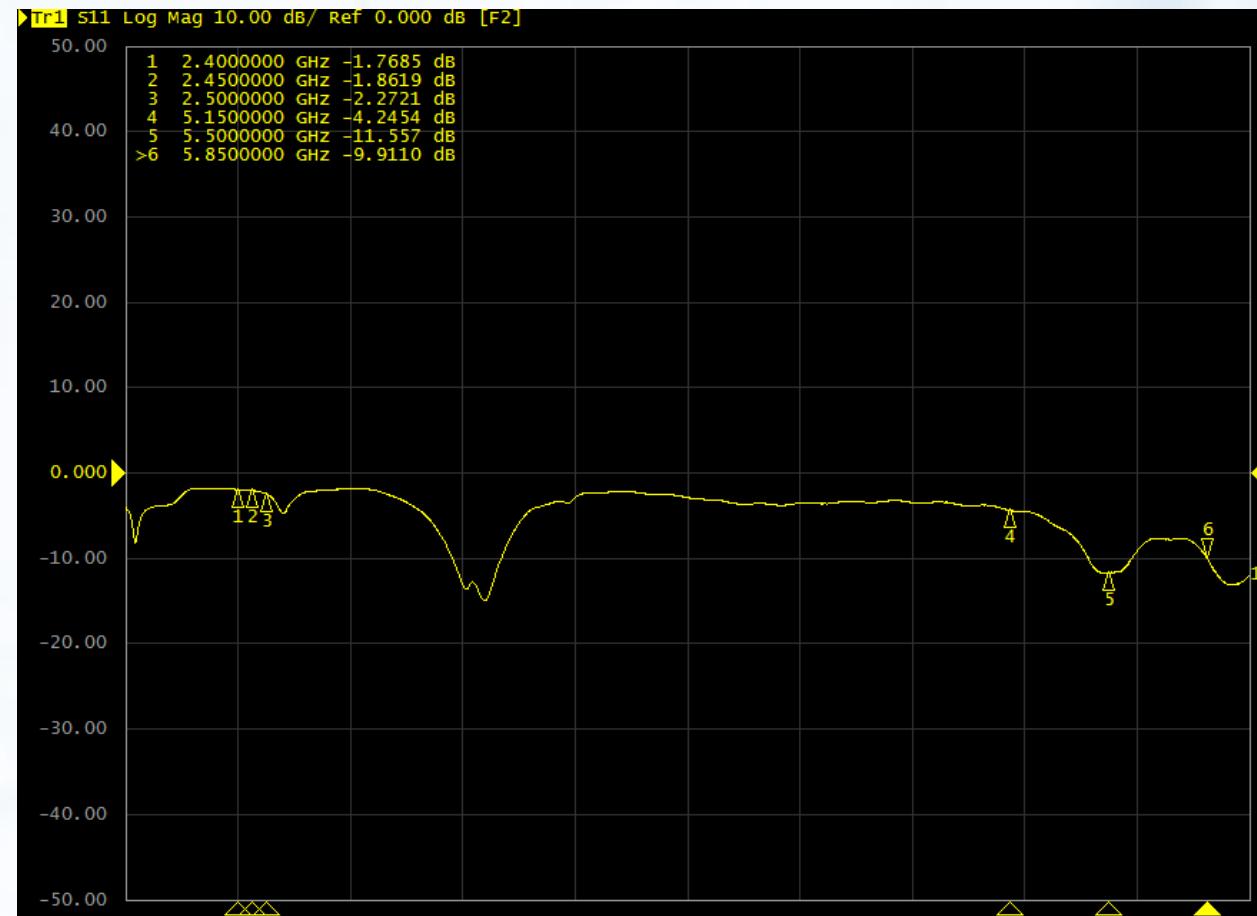


2

Antenna Characteristics

2.1 Return Loss

S11



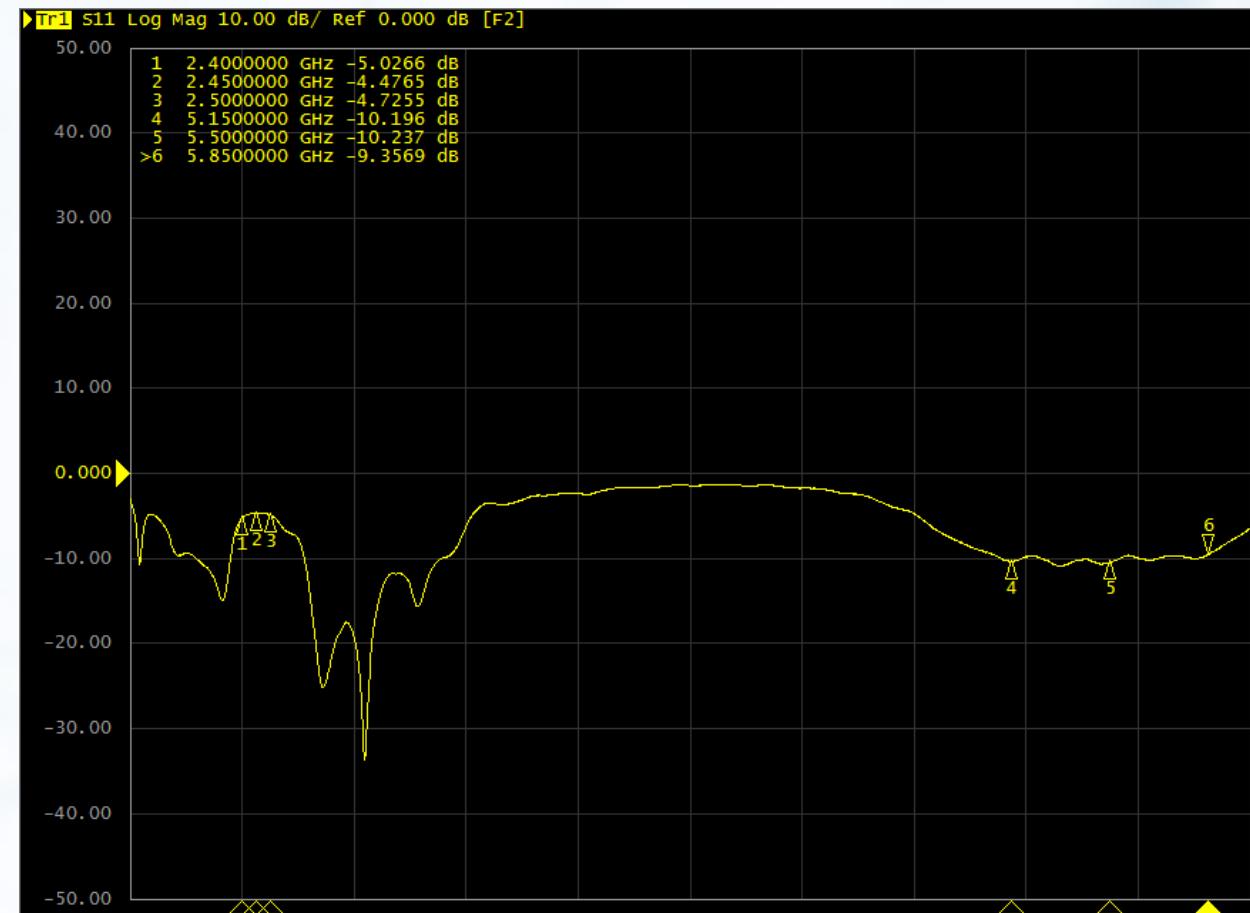


2

Antenna Characteristics

2.1 Return Loss

S22



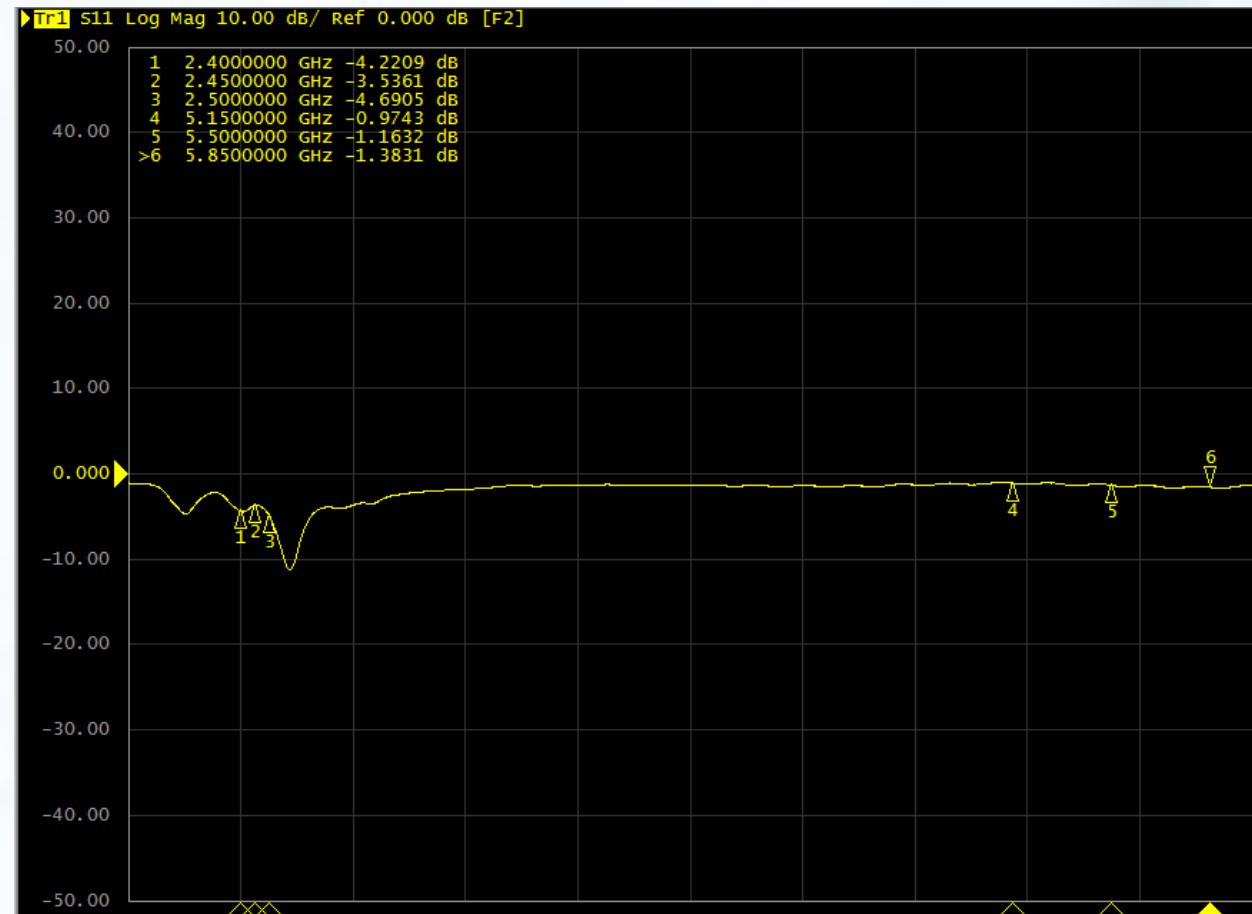


2

Antenna Characteristics

2.1 Return Loss

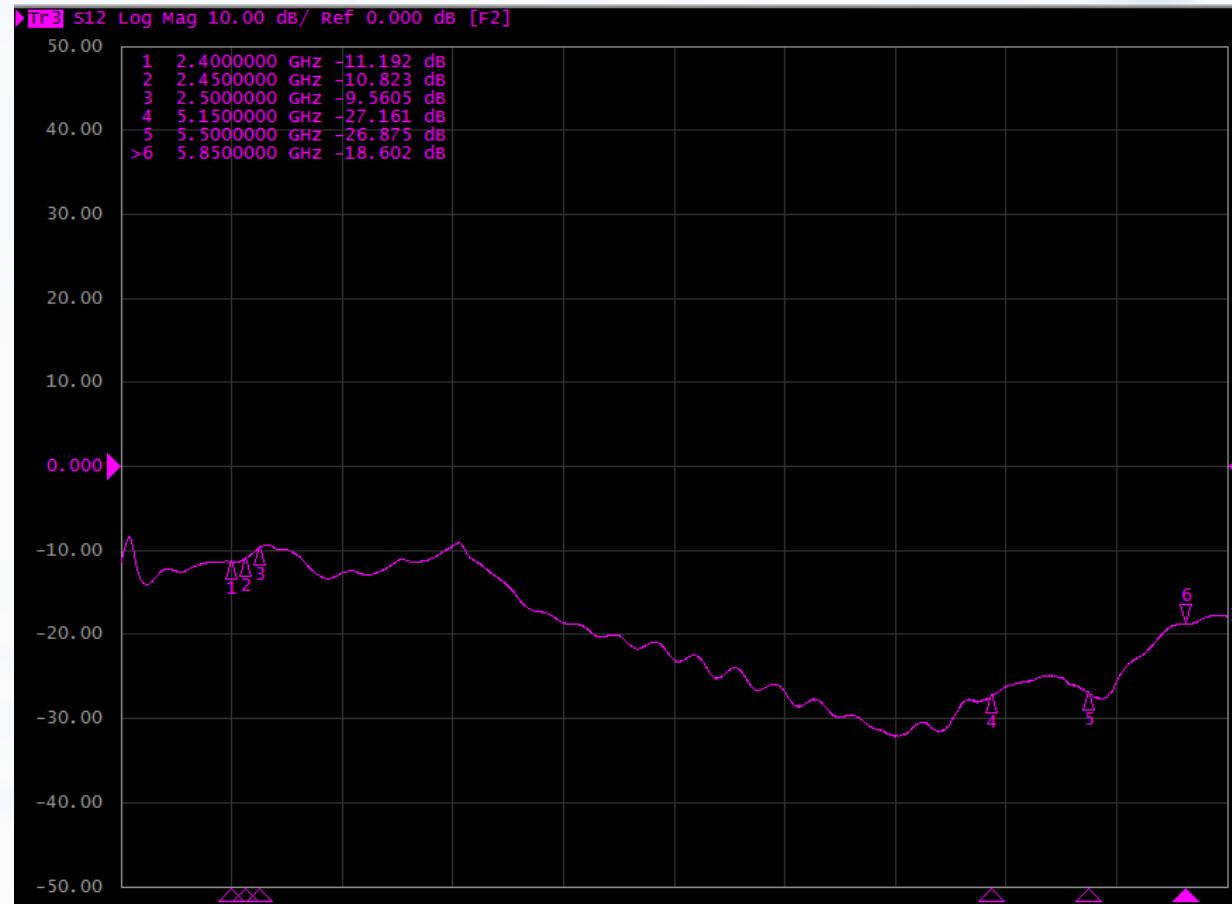
S33



2 Antenna Characteristics

2.2 Isolation

S12

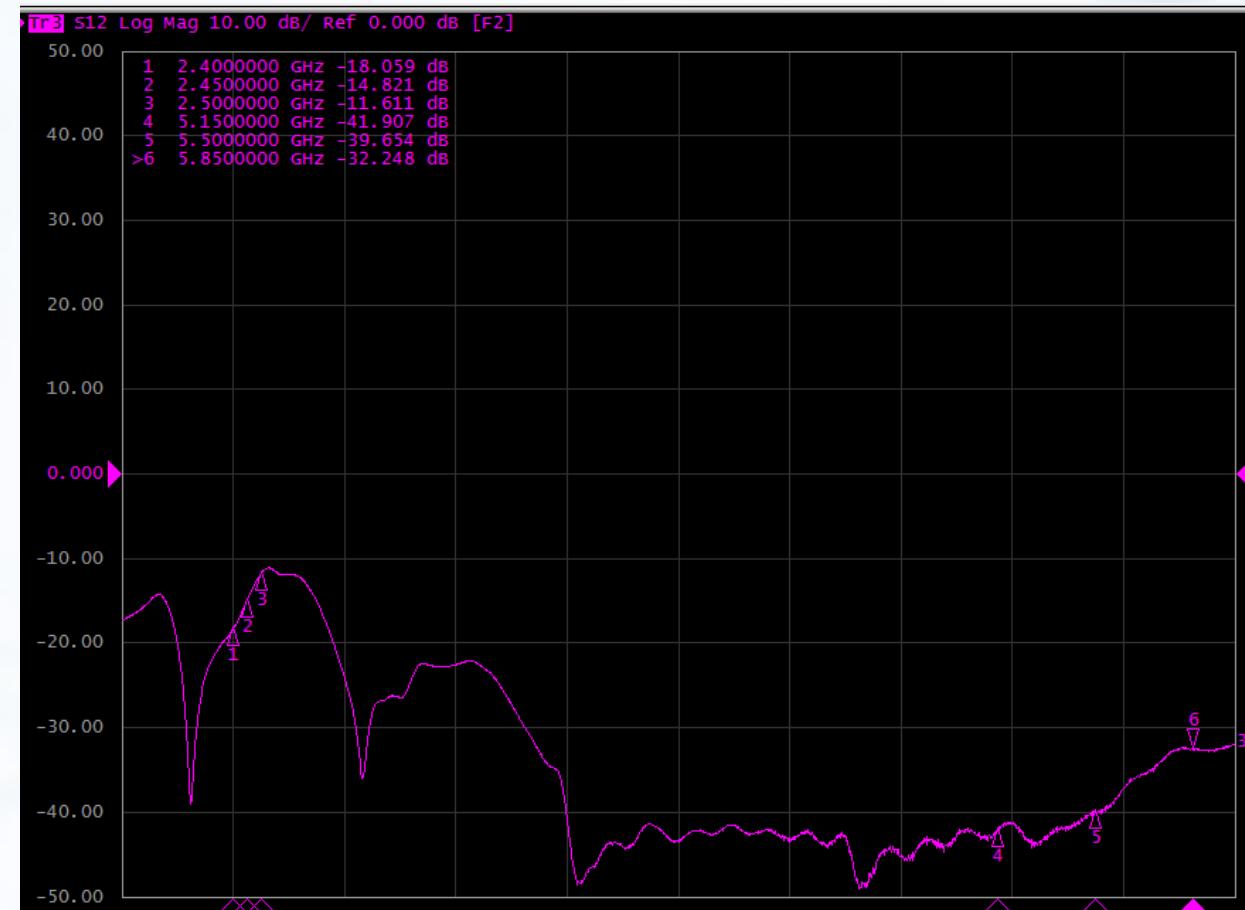




2 Antenna Characteristics

2.2 Isolation

S13

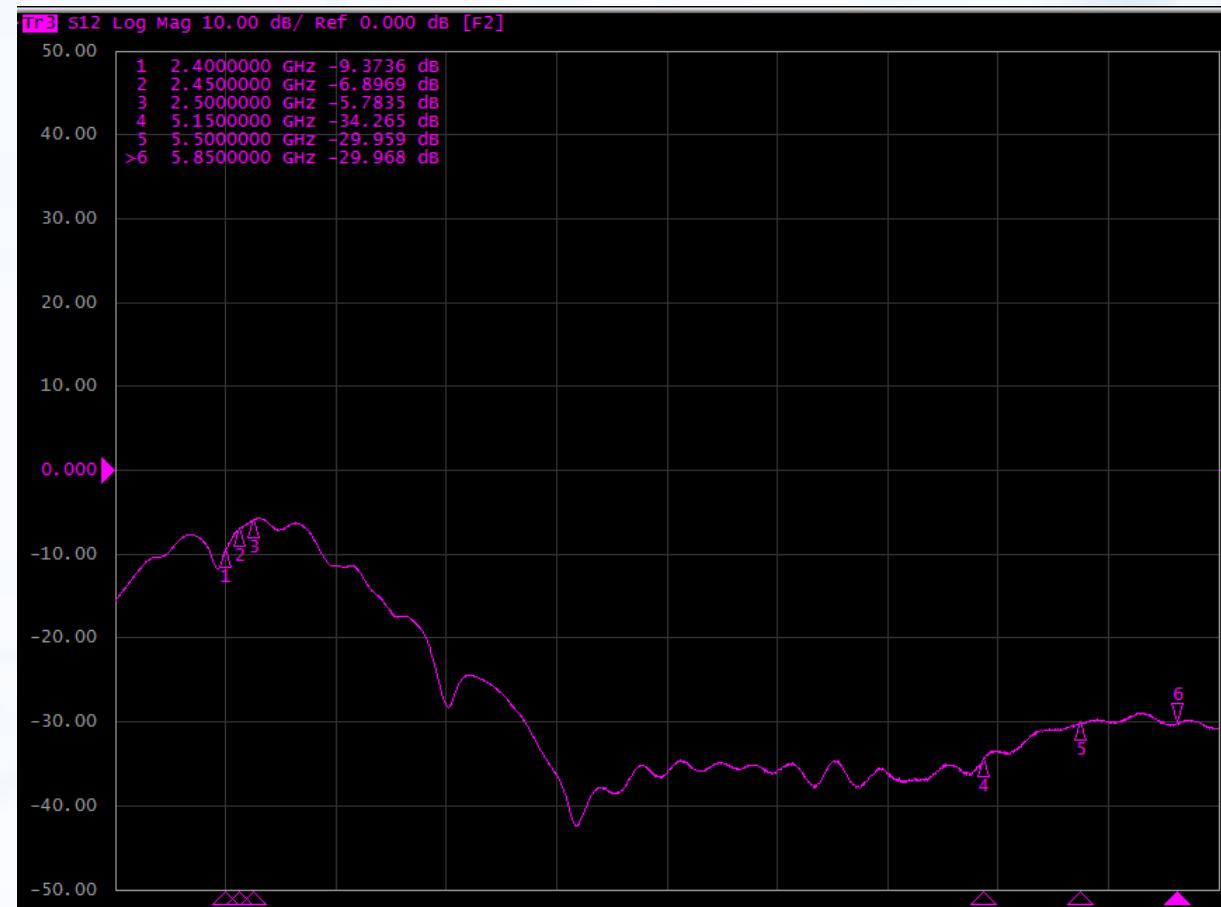




2 Antenna Characteristics

2.2 Isolation

S23



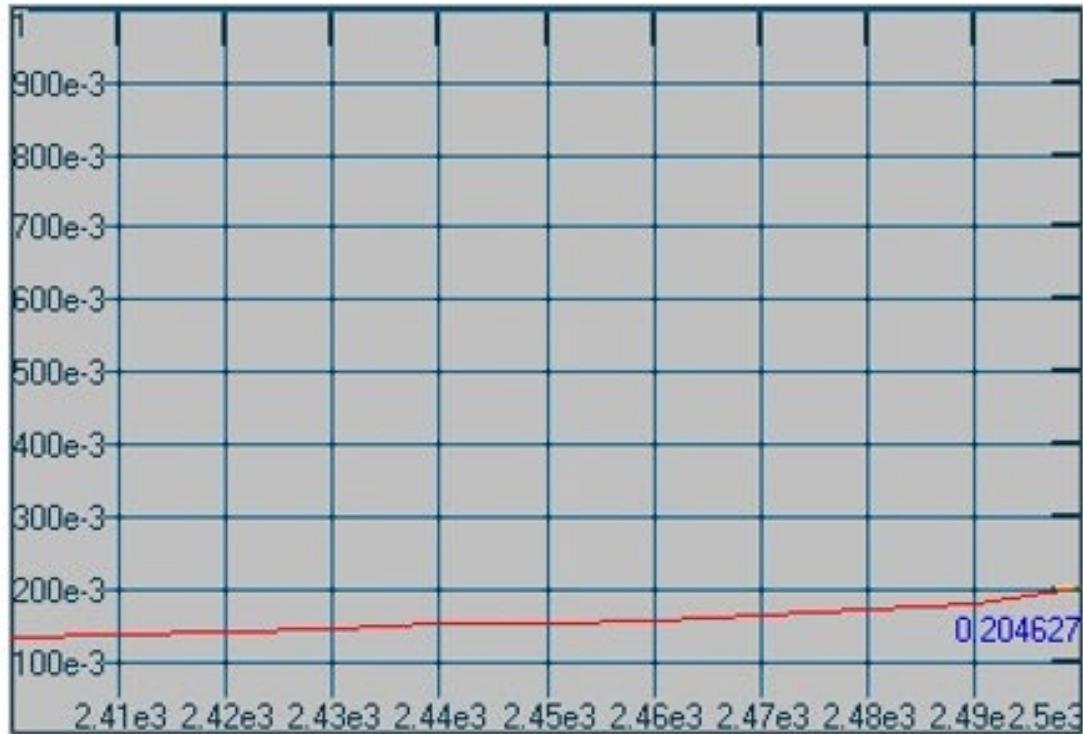


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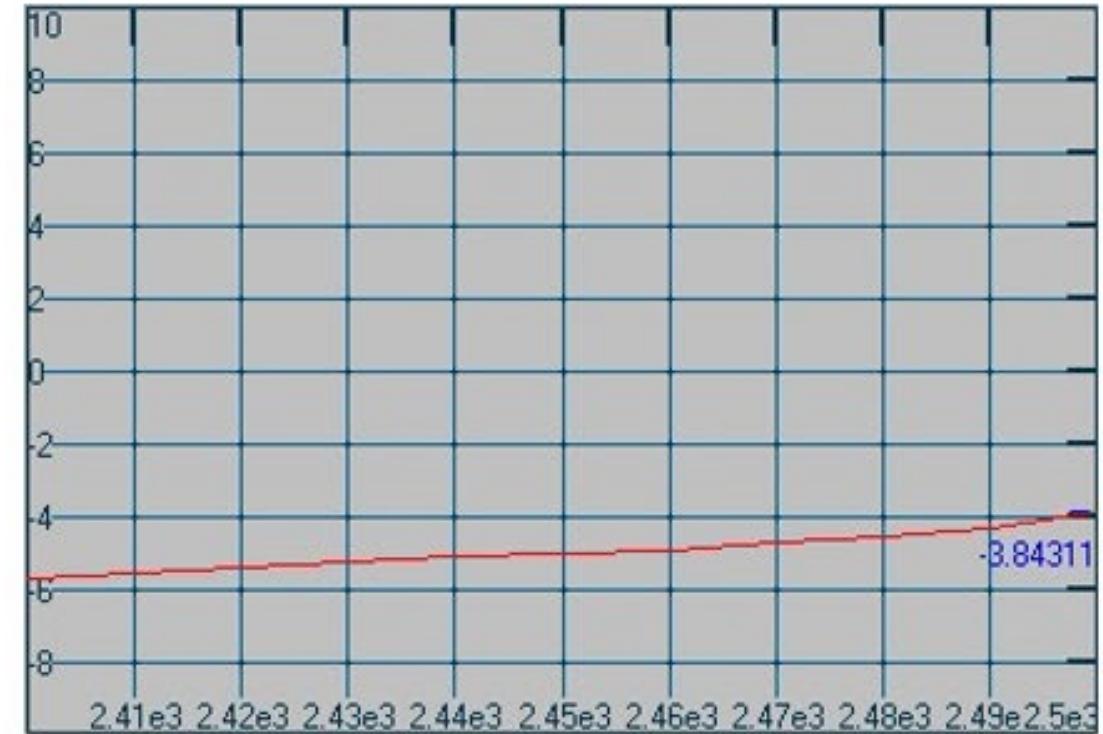
Antenna Characteristics

2.3 Antenna Efficiency and Peak Gain

2G-ANT0



Maximum Efficiency at 2500 MHz 20.46%

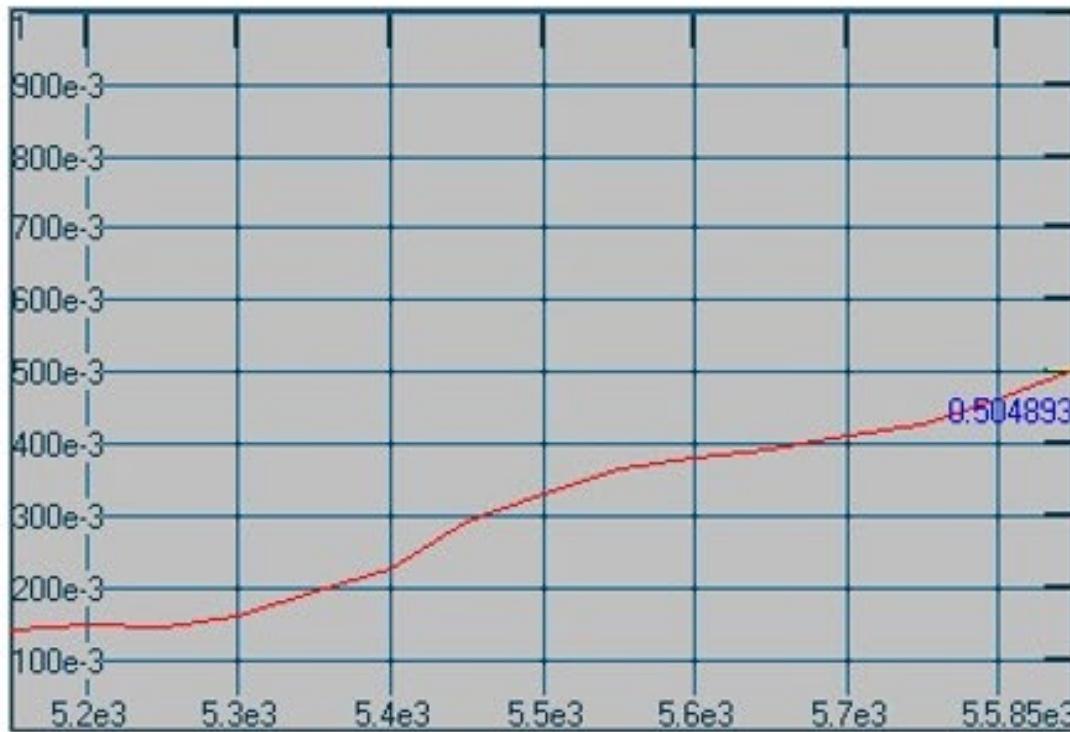


Maximum Peak Gain at 2500 MHz : -3.84dBi

2 Antenna Characteristics

2.3 Antenna Efficiency and Peak Gain

5G-ANT0



Maximum Efficiency at 5850 MHz 50.49%



Maximum Peak Gain at 5850 MHz : 2.19dBi

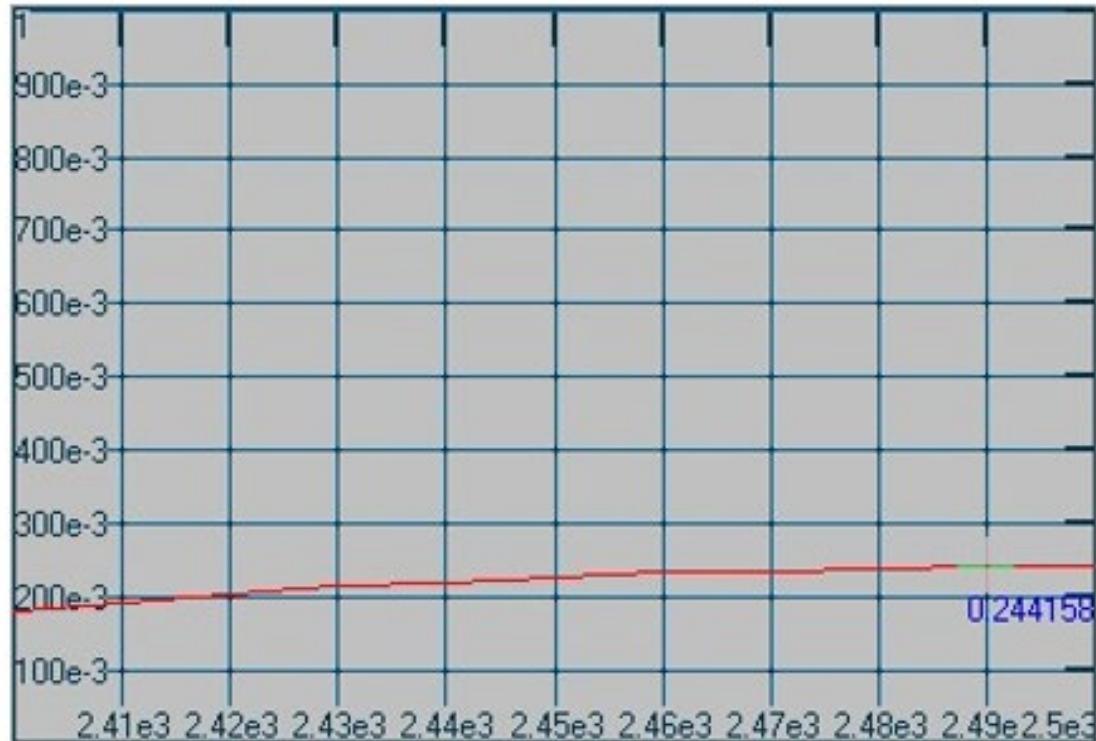


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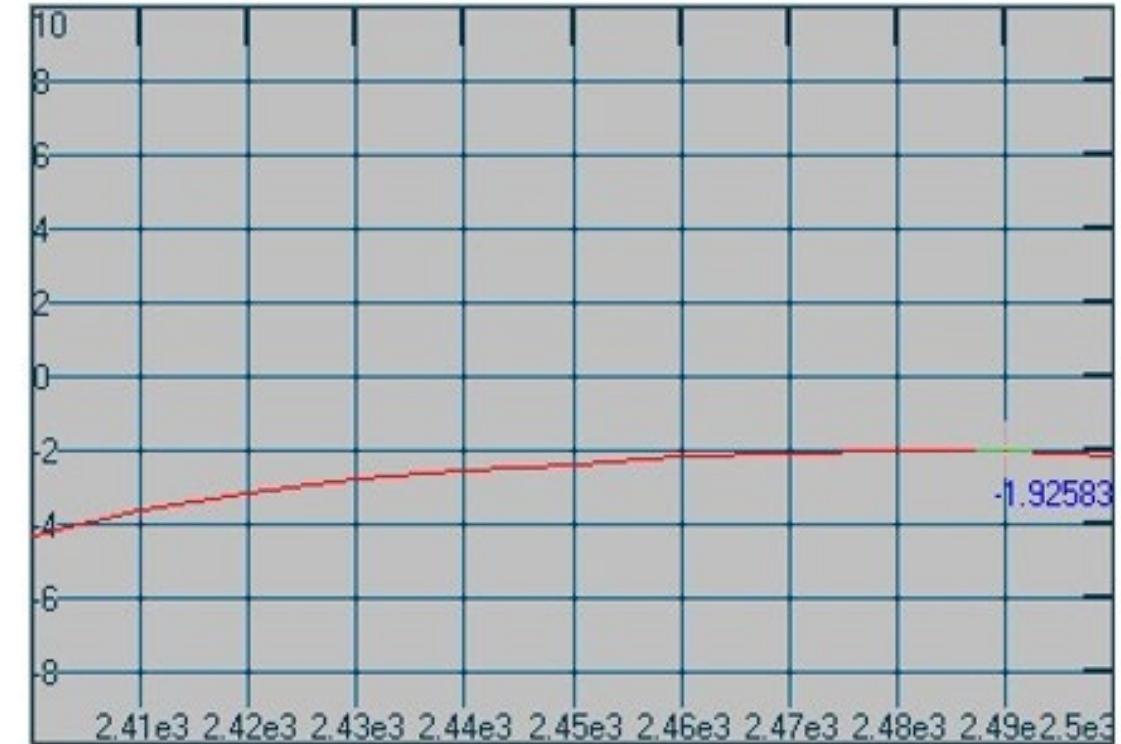
Antenna Characteristics

2.3 Antenna Efficiency and Peak Gain

2G-ANT1



Maximum Efficiency at 2490 MHz 24.42%



Maximum Peak Gain at 2490 MHz : -1.93dBi

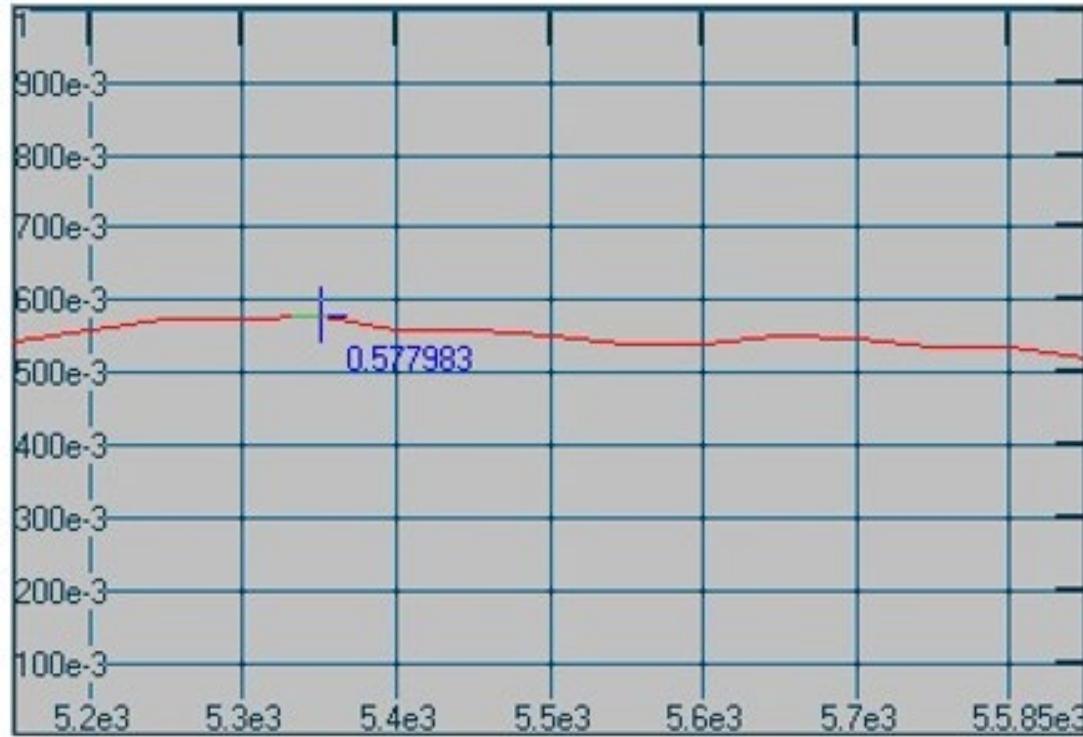


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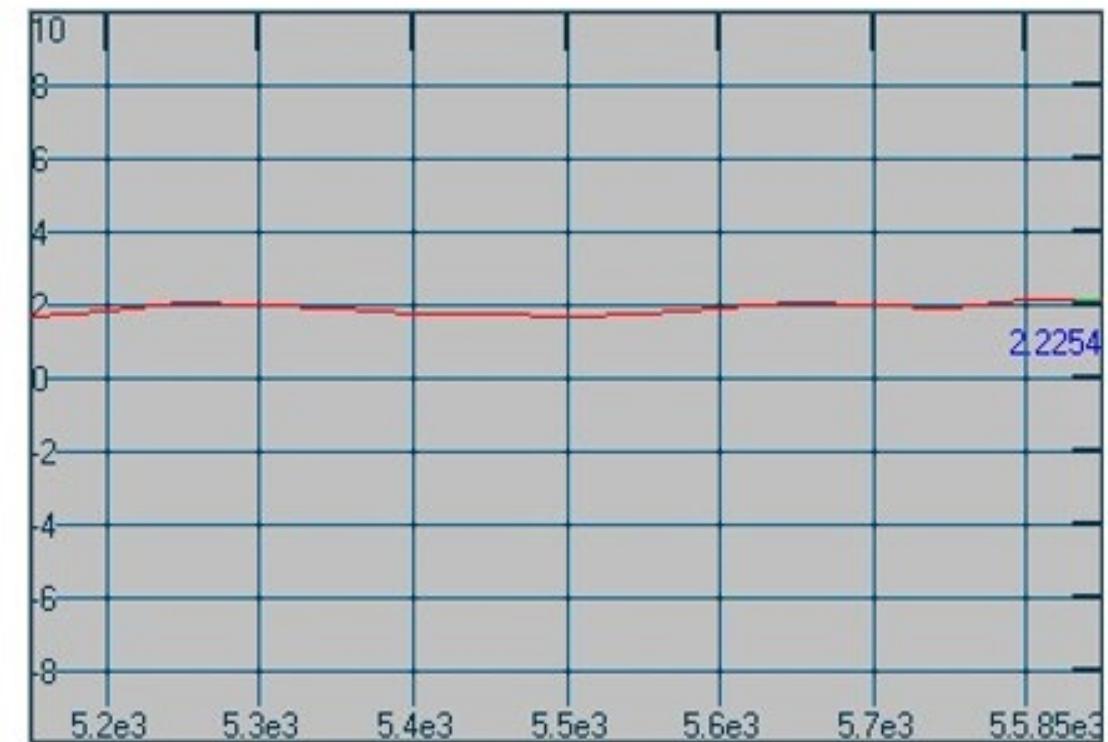
Antenna Characteristics

2.3 Antenna Efficiency and Peak Gain

5G-ANT1



Maximum Efficiency at 5350 MHz 57.80%



Maximum Peak Gain at 5850 MHz : 2.23dBi



2

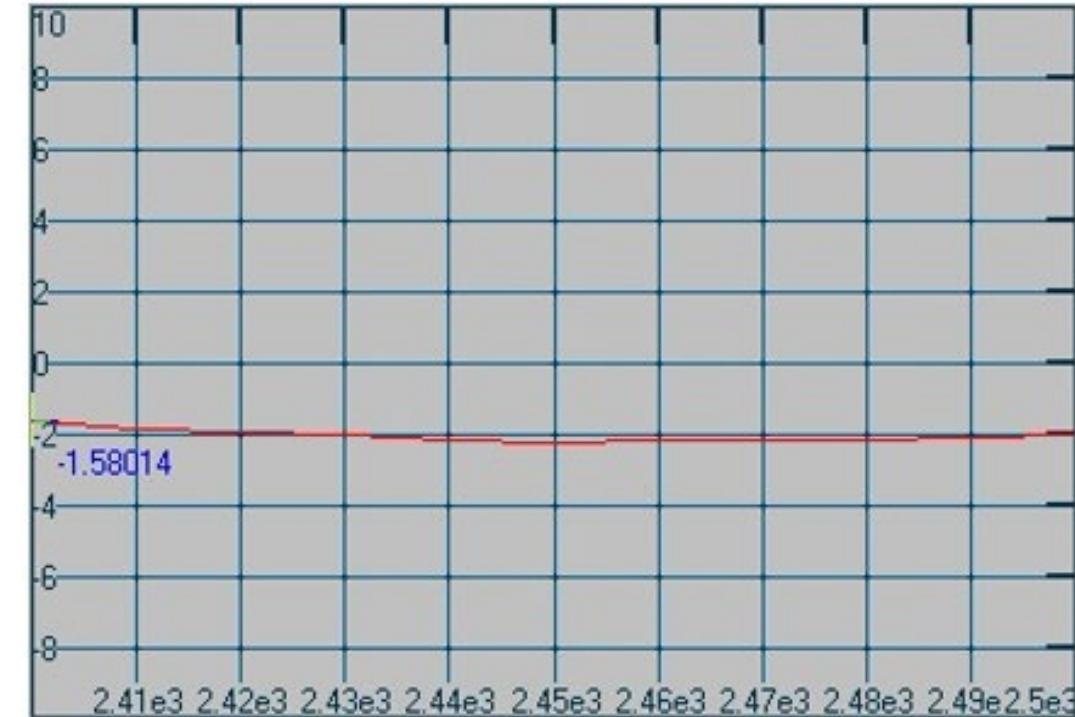
Antenna Characteristics

2.3 Antenna Efficiency and Peak Gain

2G-BT



Maximum Efficiency at 2500 MHz 32.62%



Maximum Peak Gain at 2400 MHz : -1.58dBi

2 Antenna Characteristics

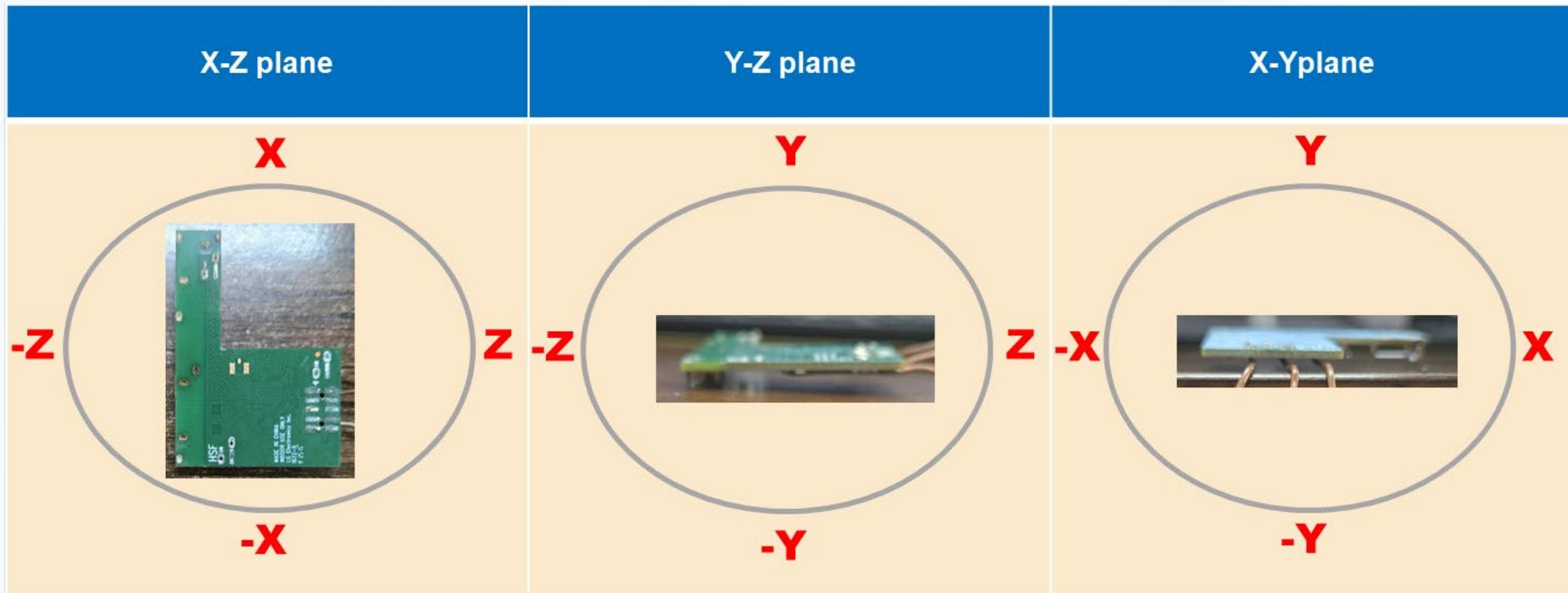
2.3 Antenna Efficiency and Peak Gain

Frequency (MHz)	ANT0		ANT1		BT	
	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)
2412	-5.50	14.06	-3.61	19.52	-1.77	29.67
2420	-5.36	14.51	-3.15	20.65	-1.91	29.01
2450	-4.98	15.63	-2.32	22.91	-2.17	28.65
2460	-4.87	15.97	-2.13	23.49	-2.10	29.41
2485	-4.50	17.52	-1.96	24.09	-2.08	30.55
5150	-1.67	14.54	1.72	54.57		
5250	-1.60	14.94	2.09	57.50		
5350	-0.39	19.92	1.98	57.80		
5450	-0.06	29.24	1.77	55.83		
5500	-0.35	33.28	1.73	55.14		
5600	0.88	38.24	1.95	53.94		
5700	1.80	41.37	2.02	54.76		
5750	1.90	42.72	1.95	53.54		
5800	1.92	46.16	2.16	53.56		
5850	2.19	50.49	2.23	52.10		



2 Antenna Characteristics

2.4 3 views of antenna

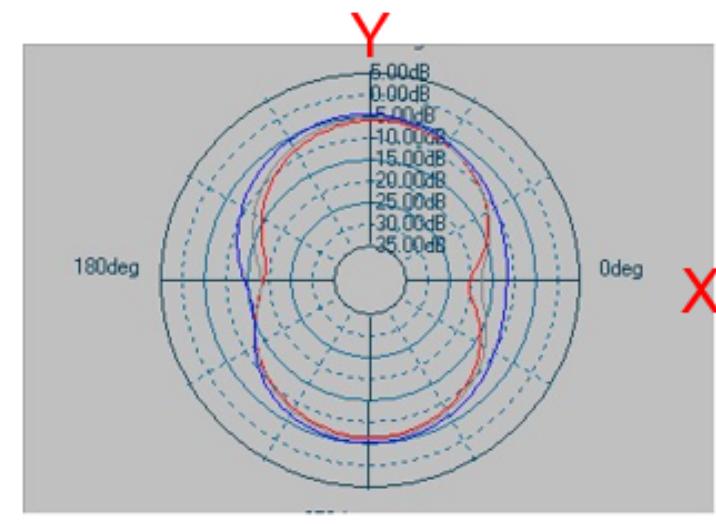
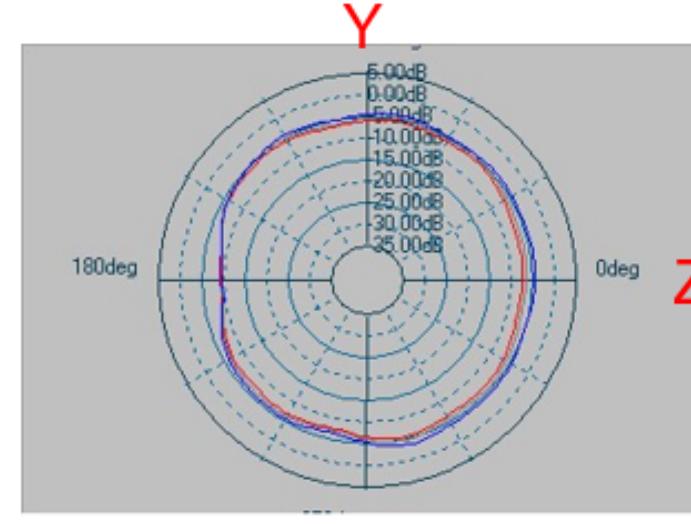
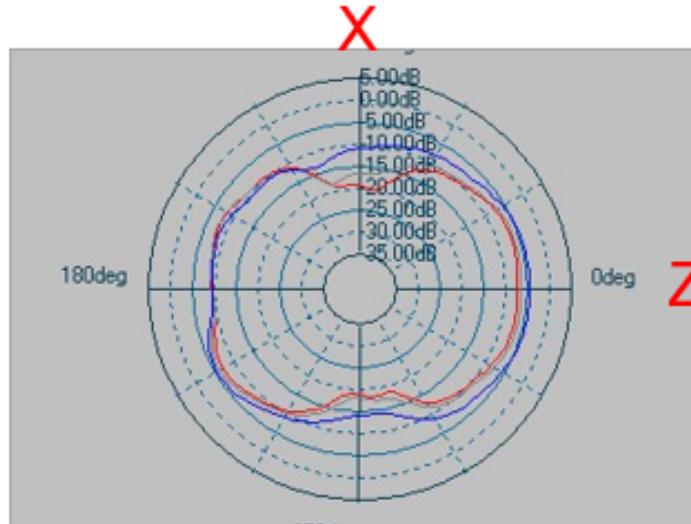




2 Antenna Characteristics

2.4 2D Radiation Patterns

2G-ANT0



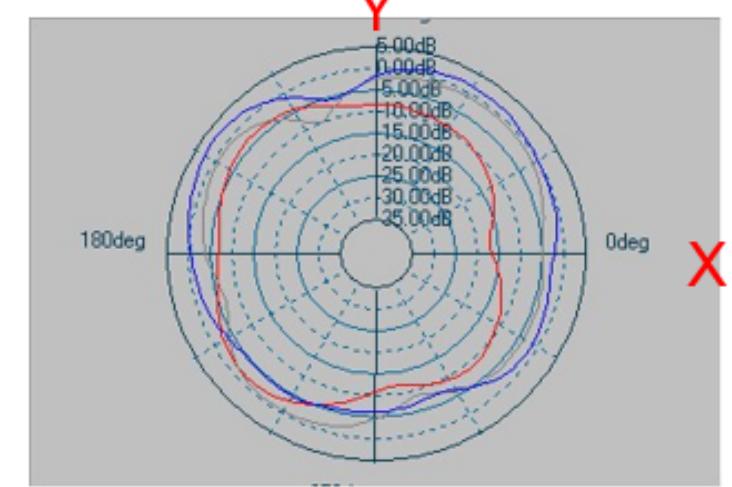
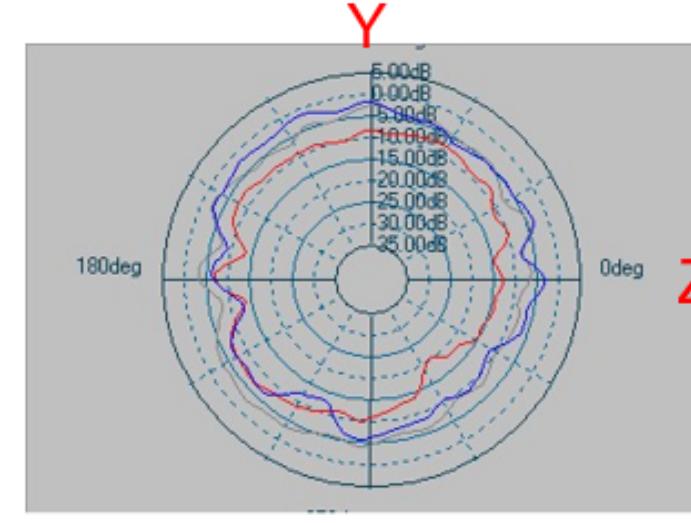
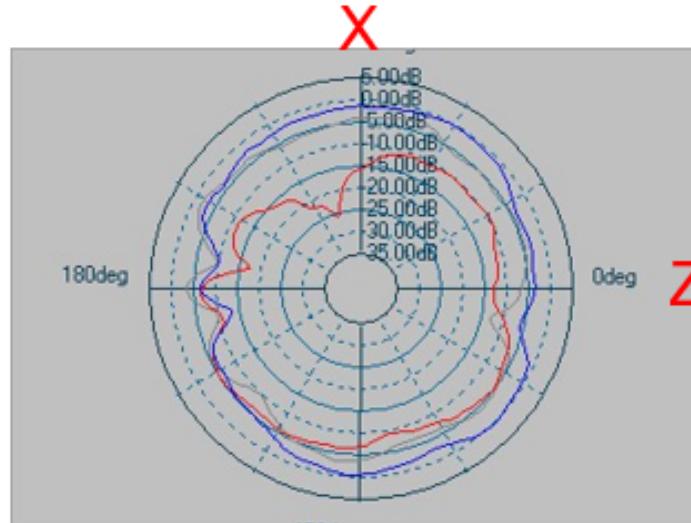
	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	-6.75	-10.05	-5.68	-6.97	-6.46	-9.92
2450	-6.15	-9.46	-5.00	-6.40	-5.99	-9.30
2500	-4.21	-7.93	-3.86	-5.44	-5.15	-7.94



2 Antenna Characteristics

2.4 2D Radiation Patterns

5G-ANT0

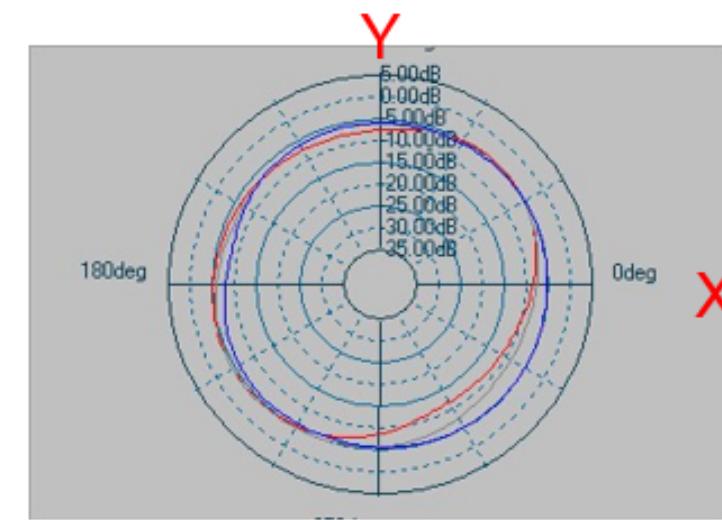
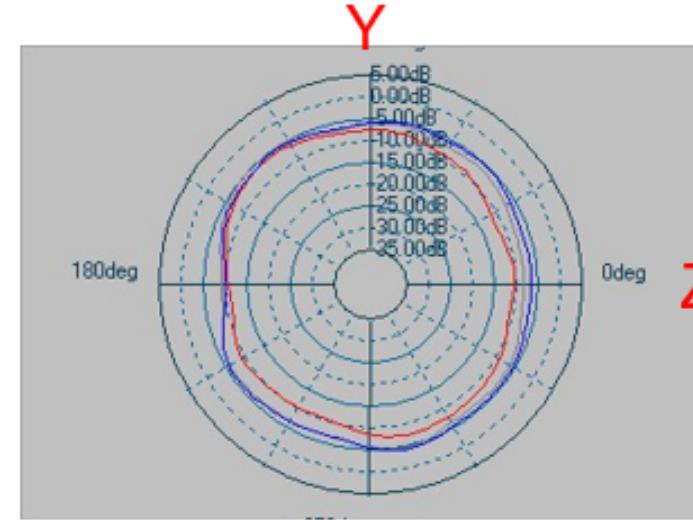
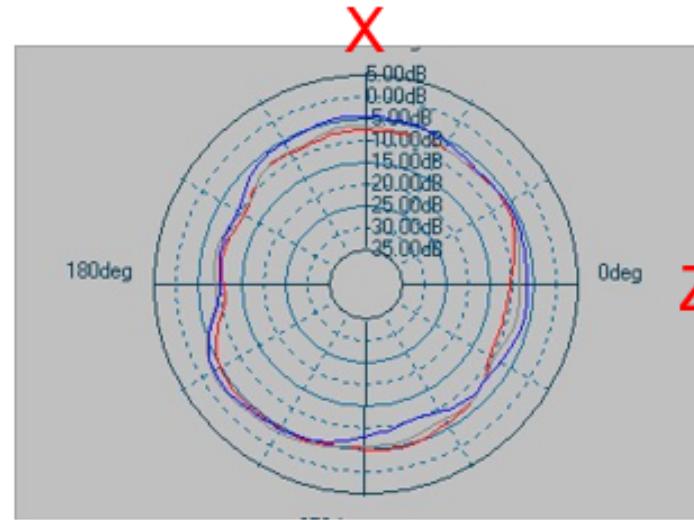


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	-5.19	-9.07	-7.11	-10.28	-1.92	-7.01
5500	-2.33	-5.48	-2.96	-5.47	-0.89	-3.24
5850	0.25	-2.84	-1.97	-5.86	2.15	-1.46

2 Antenna Characteristics

2.4 2D Radiation Patterns

2G-ANT1



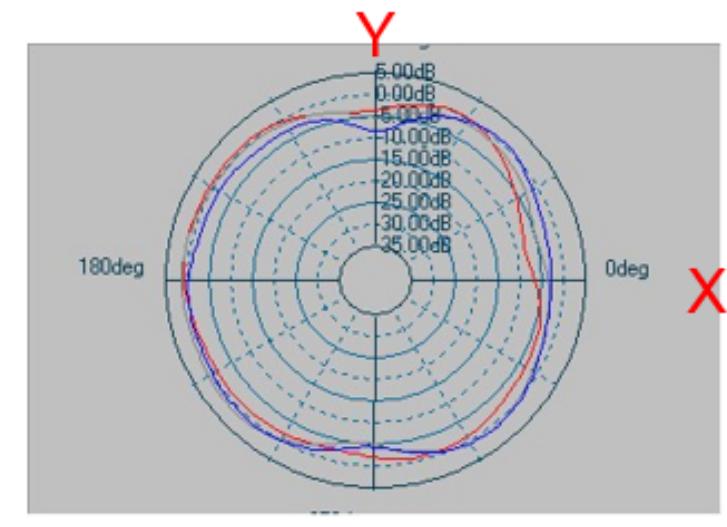
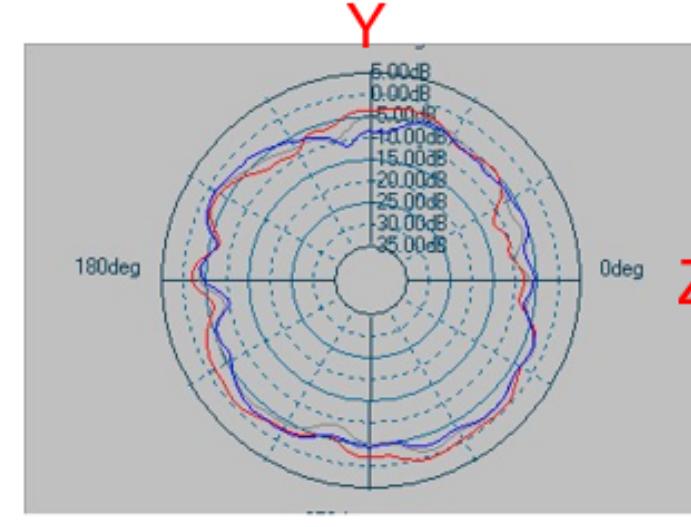
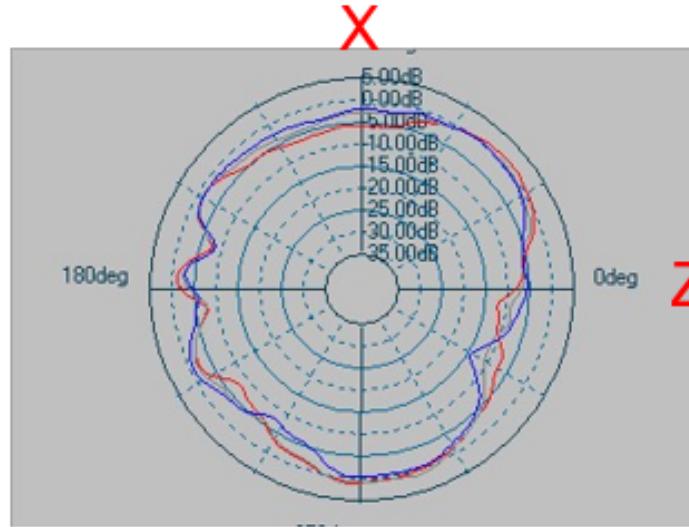
	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	-4.68	-7.42	-6.56	-9.01	-4.61	-6.96
2450	-2.90	-6.76	-4.91	-6.81	-4.56	-6.36
2500	-3.26	-6.48	-4.51	-6.40	-4.85	-6.09



2 Antenna Characteristics

2.4 2D Radiation Patterns

5G-ANT1



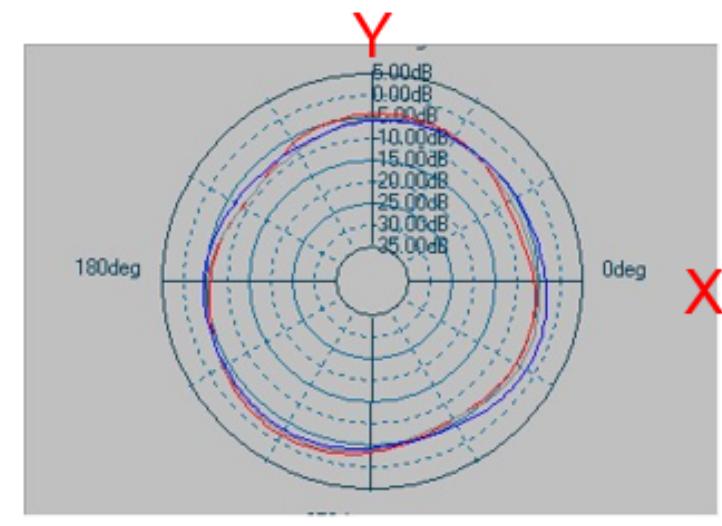
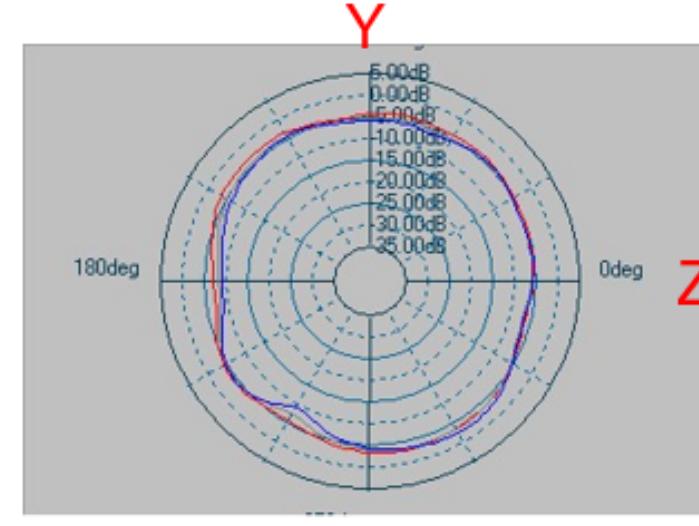
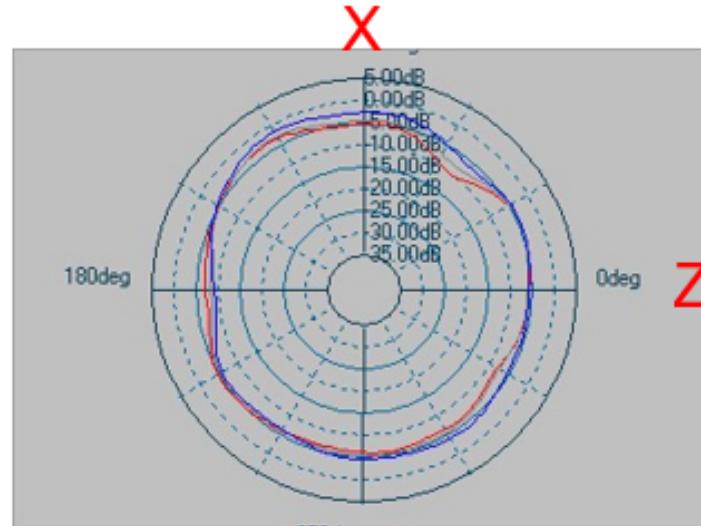
	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	1.07	-2.99	0.23	-3.73	0.79	-1.80
5500	1.09	-2.83	-1.42	-4.88	1.21	-1.25
5850	-0.29	-3.13	-1.88	-4.82	0.79	-1.60



2 Antenna Characteristics

2.4 2D Radiation Patterns

2G-BT



Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	-3.69	-6.06	-3.13	-4.77	-1.99	-5.13
2450	-3.41	-5.87	-3.53	-5.51	-2.74	-5.30
2500	-2.38	-4.99	-2.46	-5.57	-2.01	-4.65



Thank you!