
PD1 Antenna Data Sheet

Catalogue

- 1. Capability Status**
- 2. Antenna Location**
- 3. Antenna Passive Efficiency**
- 4. Simple Antenna Pattern Plot**
- 5. Antenna return loss**

1. Capability Status

a. Main software and hardware facilities for antenna Equipment introduction

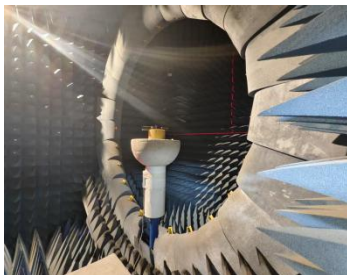
Suzhou: Satimo:1 Bluetest:1 GTS1800:1 GTS2800:1

ETS:1 NFC:Micropross:1 SAR DASY 5:1

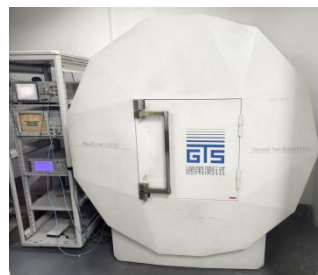
Shenzhen: Satimo: 1 Bluetest:1

Xian: GTS2800:1 Satimo: 3

Chongqing: GTS2800:1



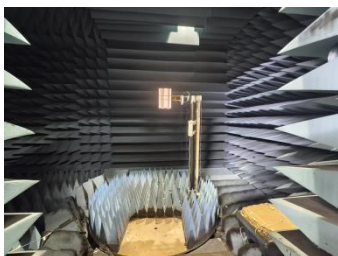
Satimo SG24



GTS1800



GTS2800



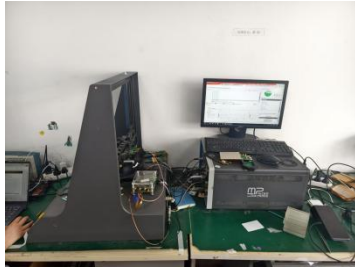
ETS



Bluetest



DASY4/5



Micropross

b. Full category testing capability

Support system

GSM/WCDMA/EVDO/TDSCDMA/TDD/FDD/5G-SA/5G-NSA/eMTC/NB-
iot/GPS/WiFi/BT/CA/ENDC

Common equipment

Keysight E7515E

Anritsu MT8820C

Agilent E5071C

Rohde&Schwarz CMW500

DASY4/5 SAR



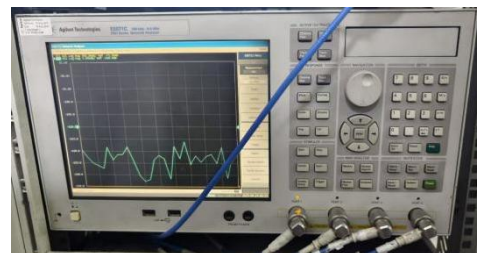
Keysight E7515E



Anritsu MT8820C

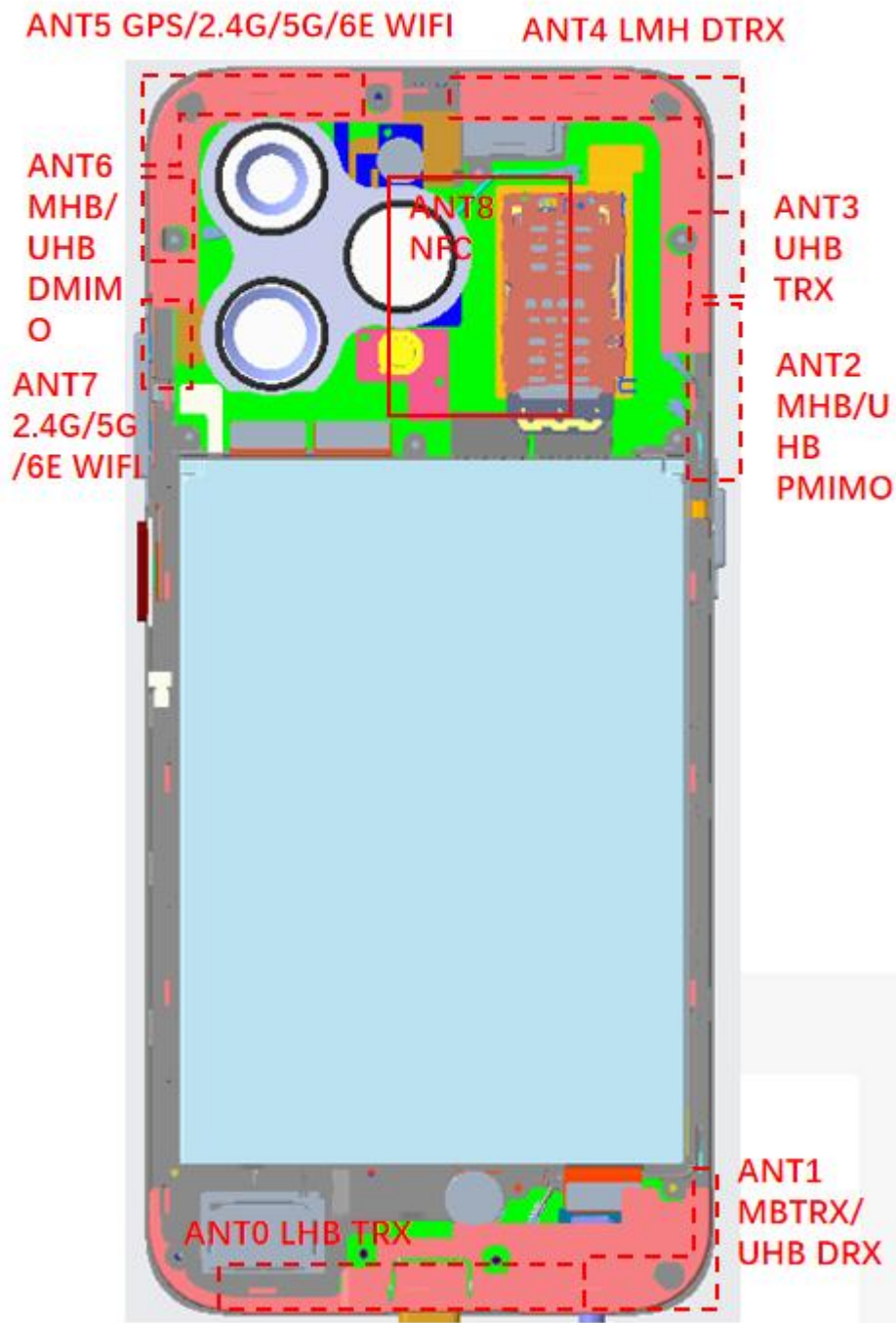


Rohde&Schwarz CMW500



Agilent E5071C

2. Antenna Location



ANT0

TX0: GSM850/900

WCDMA B5/8/19

LTE B5/8/12/13/17/18/19/26/28/71/7/30

NR N5/8/12/26/28/71/7

PRX: GSM850/900

WCDMA B5/8/19

LTE B5/8/12/13/17/18/19/26/28/71/7/30

NR N5/8/12/26/28/71/7

DRX:LTE B20/38/40/41 NR N20/38/40/41

ANT1

TX0: GSM 1800/1900

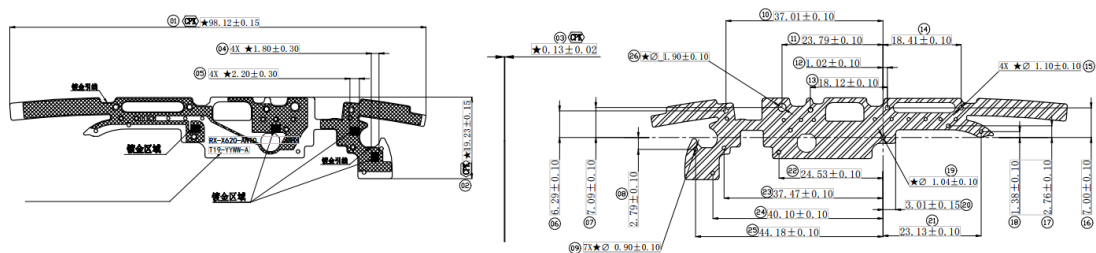
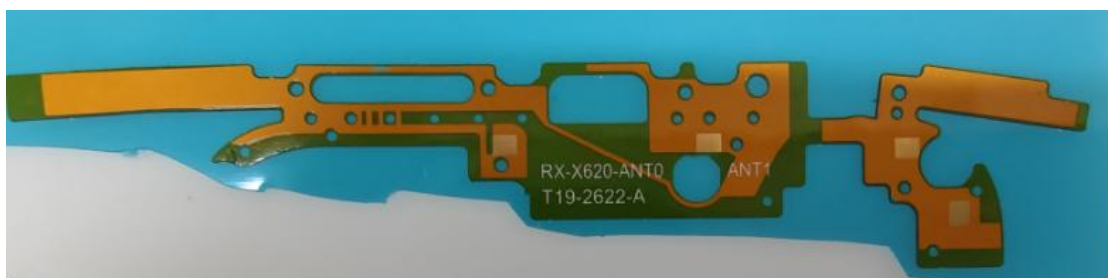
WCDMA B1/2/4/11

LTE B1/2/3/4/11/21/25/34/39/66

NR N1/2/3/25/66

DRX:LTE B42/43/48 NR N77/78/79

SRS TX :N41/77/78/79



ANT2

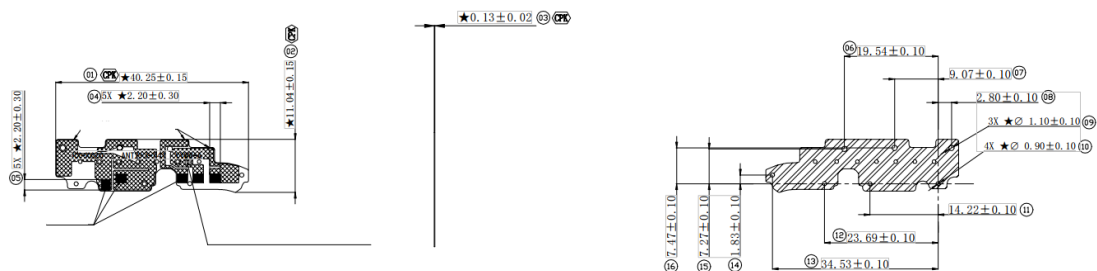
PMIMO: LTE B1/2/3/25/66/7/38/40/41/42/48 NR N1/2/3/66/25/7/38/40/41/77/78/79

SRS TX :N41/77/78/79

ANT3

TX0: LTE B42/43/48 NR N77/78/79

PRX: LTE B42/43/48 NR N77/78/79



ANT4

TX0:LTE B20/38/40/41 NR N20/38/40/41

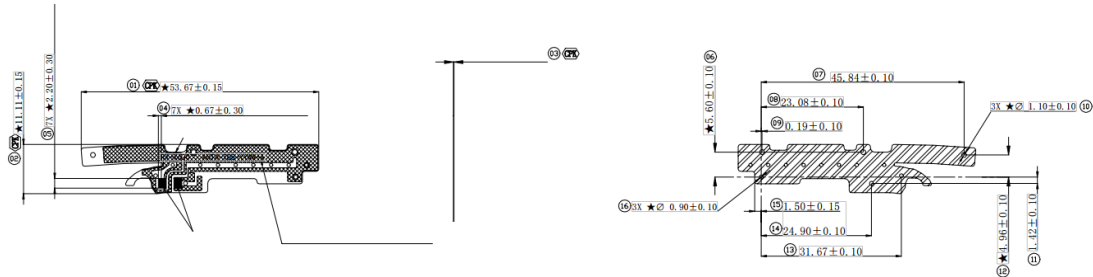
PRX:LTE B20/38/40/41 NR N20/38/40/41

TX1: LTE B1/2/3/4/7/11/21/25/34/39/66 NR N1/2/3/7/25/66

DRX: GSM 850/900/1800/1900 WCDMA B1/2/4/5/8/11/19

LTE B1/2/3/4/11/21/25/66/5/8/12/13/17/18/19/26/28/71/7/30

NR N1/2/3/25/66/5/8/12/26/28/71/7



ANT0/1 Model:X620AA-ANT01

ANT2/3 Model:X620AA-ANT23

ANT4 Model:X620AA-ANT4

ANT0/1/2/3/4 Vendor

Name: Kunshan Innowave Communication Technology Co., Ltd.

URL: <https://www.innowave.cn/>

Tel: 0512-57258326

Address: Building H, No.55 Shengchuang Road, Kunshan

ANT5:

WiFi 2.4G&5G&6E

BT

GPS L1

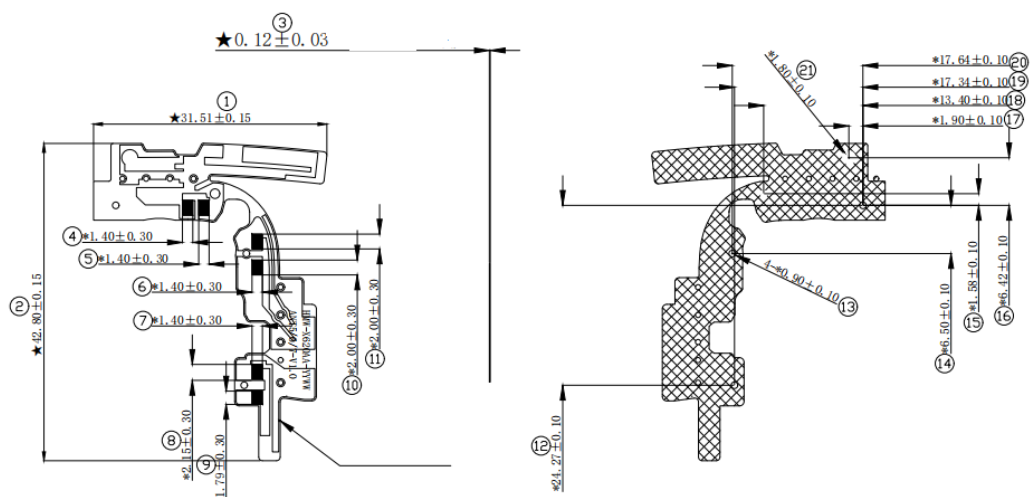
ANT6

DMIMO: LTE B1/2/3/25/66/7/38/40/41/42/48 NR N1/2/3/66/25/7/38/40/41/77/78/79

SRS TX :N41/77/78/79

ANT7:

WiFi 2.4G&5G&6E



ANT5/6/7 Model:X620AA-ANT5/6/7

ANT5/6/7 Vendor

Name: Shenzhen HamyWe Technology Co., Ltd

URL: www.szuhot.com

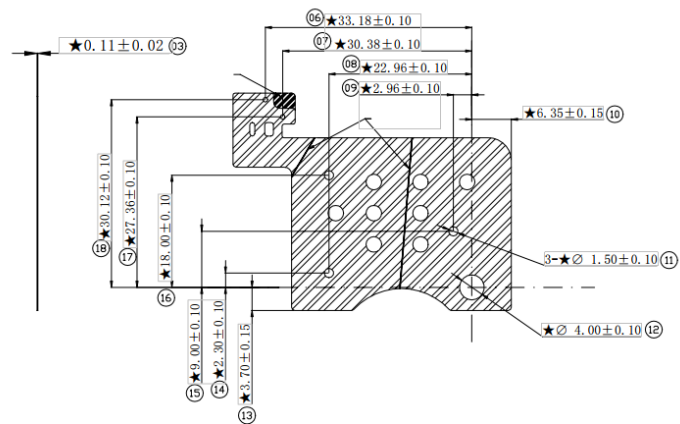
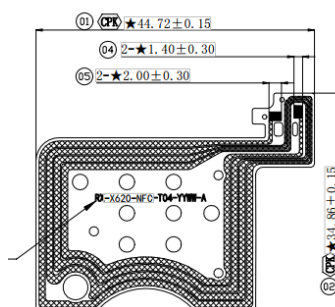
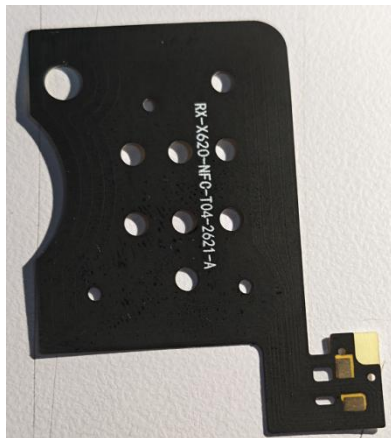
Tel: 0755-36818170

Fax: 0755-36818170

Address: 4th Floor, Building D, Aimet Electric Appliances (Shenzhen), No. 4 Huangfengling Industrial Avenue, Shiyan Street, Bao'an District, Shenzhen City, Guangdong Province

ANT8:

NFC



Model: X620AA-NFC

ANT8 Vendor

Name: Kunshan Innwave Communication Technology Co., Ltd.

URL:<https://www.innowave.cn/>

Tel: 0512-57258326

Address: Building H, No.55 Shengchuang Road, Kunshan

Based on the model difference letter, X620AA was selected for testing.

3. **Antenna Passive Efficiency**

Ant0-PIFA Antenna

	Average Gain (dBi)	Maximum peak Gain (dBi)
GSM850	-4.2	-4
GSM900	-4.5	-3.6
WCDMA B5	-4.2	-4
WCDMA B8	-4.5	-3.6
WCDMA B19	-4.2	-4
LTE B5	-4.2	-4
LTE B8	-4.5	-3.6
LTE B12	-5.7	-5.5
LTE B13	-5.7	-5.5
LTE B17	-5.7	-5.5
LTE B18	-4.2	-4
LTE B19	-4.2	-4
LTE B26	-4.2	-4
LTE B28	-5.5	-4.5
LTE B71	-3.4	-2.2
LTE B7	-1	-0.4
LTE B30	-1.5	-1.2
LTE B38	-1	-0.4
LTE B40	-1.5	-1.2
LTE B41	-1	-0.4
N5	-4.2	-4
N8	-4.5	-3.6

N12	-5.7	-5.5
N26	-4.2	-4
N28	-5.5	-4.5
N71	-3.4	-2.2
N7	-1	-0.4
N38	-1	-0.4
N40	-1.5	-1.2
N41	-1	-0.4

Ant1-PIFA Antenna

	Average Gain (dBi)	Maximum peak Gain (dBi)
GSM1800	0.6	1
GSM1900	0.3	0.8
W1	1	1.2
W2	0.3	0.8
W4	0.6	1
W11	-0.6	-0.4
LTE B1	1	1.2
LTE B2	0.3	0.8
LTE B3	0.6	1
LTE B4	0.6	1
LTE B11	-0.6	-0.4
LTE B21	-0.6	-0.4
LTE B25	0.3	0.8
LTE B34	0.9	1.2
LTE B39	0.3	0.8
LTE B66	0.6	1
N1	1	1.2

N2	0.3	0.8
N3	0.6	1
N25	0.3	0.8
N66	0.6	1
N77	-1	0
N78	-1	0
N79	-1.2	-0.2

Ant2-PIFA Antenna

	Average Gain (dBi)	Maximum peak Gain (dBi)
LTE B41	-3.5	-2.6
LTE B42	-2.4	-1.5
LTE B43	-2.6	-1.8
LTE B48	-2.5	-1.4
N41	-3.5	-2.6
N77	-2.5	-1.5
N78	-2.5	-1.5
N79	-2.5	-1.4

Ant3-PIFA Antenna

	Average Gain (dBi)	Maximum peak Gain (dBi)
LTE B42	-4.5	-1.8
LTE B43	-4.2	-1.5
LTE B48	-4.2	-1.5
N77	-4.2	-1.5
N78	-4.2	-1.5
N79	-4.8	-1.8

Ant4-PIFA Antenna

TX0	Average Gain (dBi)	Maximum peak Gain (dBi)
LTE B20	-6.1	-5.1
LTE B38	-1.4	-1.1
LTE B40	-1.5	-0.7
LTE B41	-1.7	-0.3
N20	-6.1	-5.1
N38	-1.4	-1.1
N40	-1.5	-0.7
N41	-1.7	-0.3

TX1	Average Gain (dBi)	Maximum peak Gain (dBi)
LTE B1	0.9	1.2
LTE B2	0.2	0.4
LTE B3	-2.2	-1.4
LTE B4	-2.2	-1.4
LTE B7	-1	-0.3
LTE B25	0.2	0.4
LTE B66	-2.2	-1.4
N1	0.9	1.2
N2	0.2	0.4
N3	-2.2	-1.4
N7	-1	-0.3
N25	0.2	0.4
N66	-2.2	-1.4

Ant5-PIFA Antenna

	Average Gain (dBi)	Maximum peak Gain (dBi)
GPS	-0.2	-0.2

Freq(MHz)	Gain	Freq(MHz)	Gain	Freq(MHz)	Gain
2400	-1.45	5150	-4.72	6000	-2.57
2410	-1.47	5200	-4.27	6050	-2.64
2420	-1.49	5250	-3.78	6100	-2.41
2430	-1.32	5300	-3.45	6150	-3.42
2440	-1.35	5350	-2.17	6200	-2.95
2450	-1.54	5400	-1.95	6250	-4.48
2460	-1.66	5450	-0.99	6300	-3.47
2470	-1.92	5500	-0.96	6350	-3.14
2480	-1.97	5550	-1.01	6400	-2.58
2490	-2	5600	-1.01	6450	-3.66
2500	-1.93	5650	-1.6	6500	-4.09
		5700	-0.77	6550	-4.16
		5750	-1.45	6600	-5.44
		5800	-1.57	6650	-5.63
		5850	-1.07	6700	-4.37
		5900	-2.41	6750	-5.68
		5950	-2.22	6800	-4.51
				6850	-4.69
				6900	-4.86
				6950	-4.15
				7000	-3.92
				7050	-3.55
				7100	-3.55
				7150	-3.85
				7200	-4.48

Ant6-PIFA Antenna

	Average Gain (dBi)	Maximum peak Gain (dBi)
LTE B41	-6.3	-5.8
LTE B42	-0.5	0.1
LTE B43	-2.9	-0.8
LTE B48	-0.5	-0.1
N41	-6.3	-5.8
N77	-3.3	0.1
N78	-1.8	0.1
N79	-0.5	-0.1

Ant7-PIFA Antenna

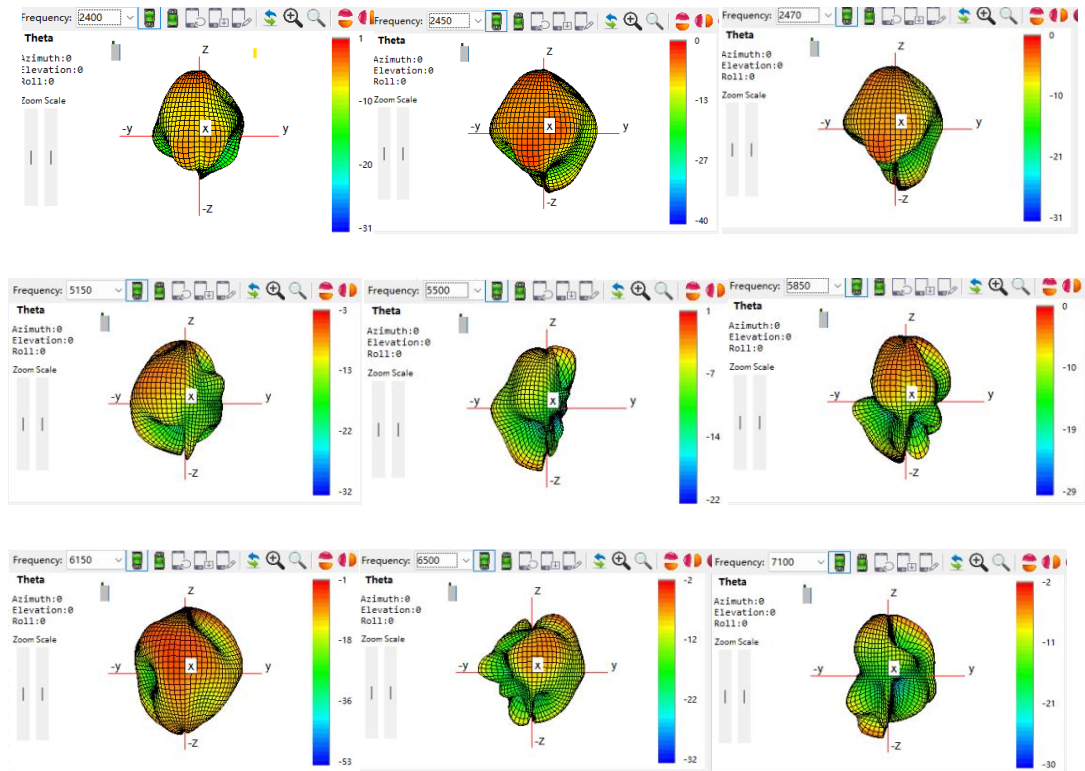
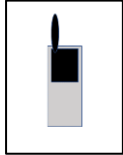
Freq(MHz)	Gain	Freq(MHz)	Gain	Freq(MHz)	Gain
2400	-3.01	5150	-2.11	6000	-1.64
2410	-3.4	5200	-2.01	6050	-1.01
2420	-3.66	5250	-1.47	6100	-1.36
2430	-3.77	5300	-2.59	6150	-2.29
2440	-3.23	5350	-2.87	6200	-2.21
2450	-3.38	5400	-2.45	6250	-2.79
2460	-3.64	5450	-2.29	6300	-3.16
2470	-3.97	5500	-2.9	6350	-3.99
2480	-3.94	5550	-2.33	6400	-1.81
2490	-4.53	5600	-2.1	6450	-3.17
2500	-4.64	5650	-2.5	6500	-3.39
		5700	-1.39	6550	-2.85
		5750	-1.77	6600	-3.33
		5800	-1.8	6650	-3.87
		5850	-0.73	6700	-3.49
		5900	-1.58	6750	-4.15
		5950	-1.7	6800	-3.76
				6850	-4.22
				6900	-4.8
				6950	-4.09
				7000	-4.64
				7050	-4.76
				7100	-5.38
				7150	-5.23
				7200	-5.74

ANT8 NFC

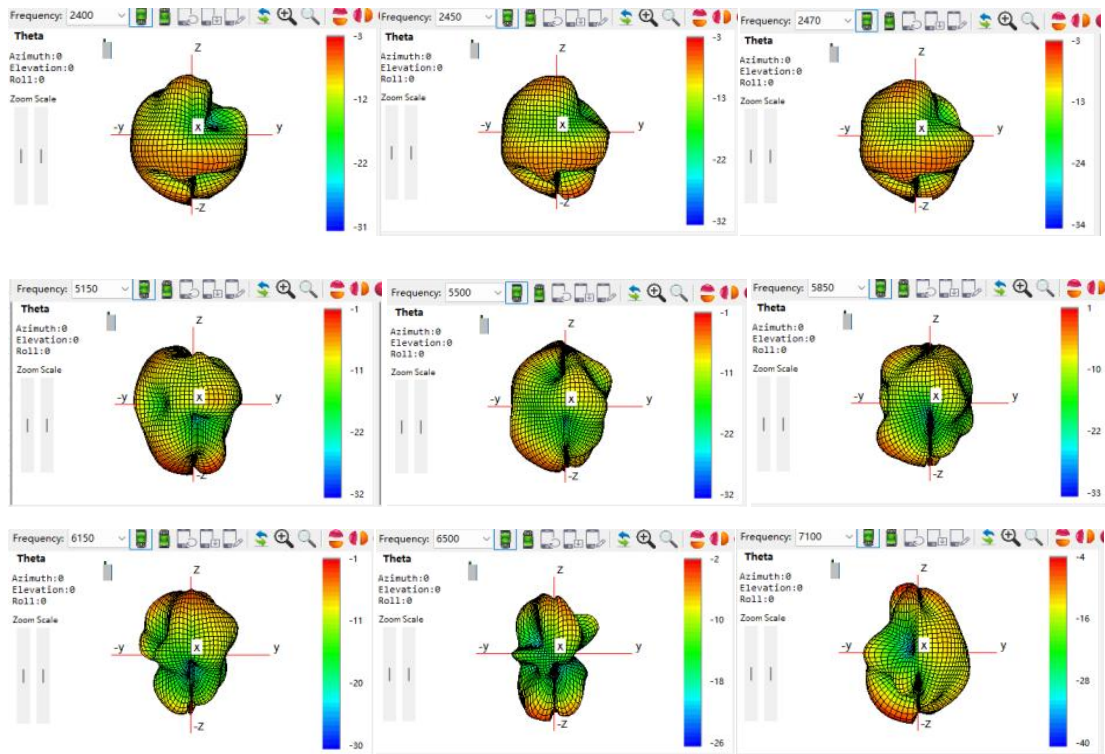
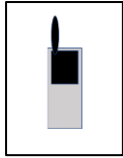
The devices does not support the test of NFC gain.In addition,all measurements were performed radiated and therefore additional antenna gain documentation is not required.

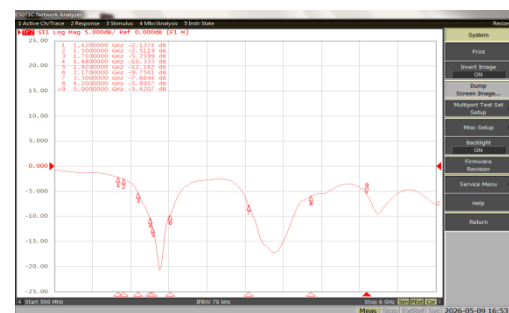
4.Simple Antenna Pattern Plot

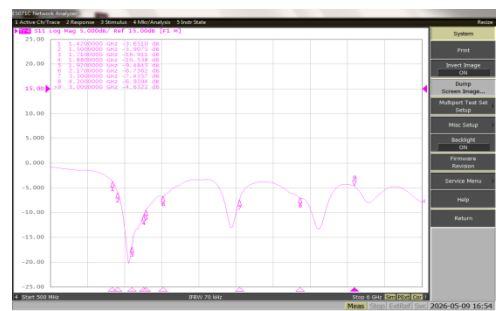
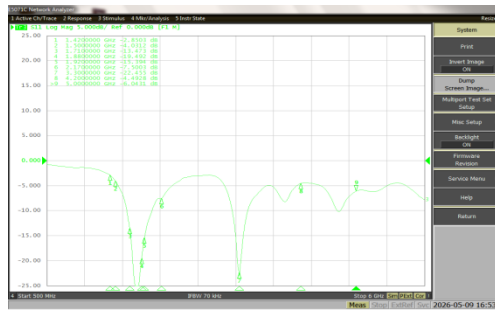
A. Antenna5



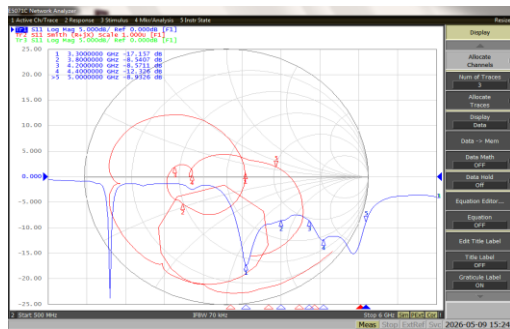
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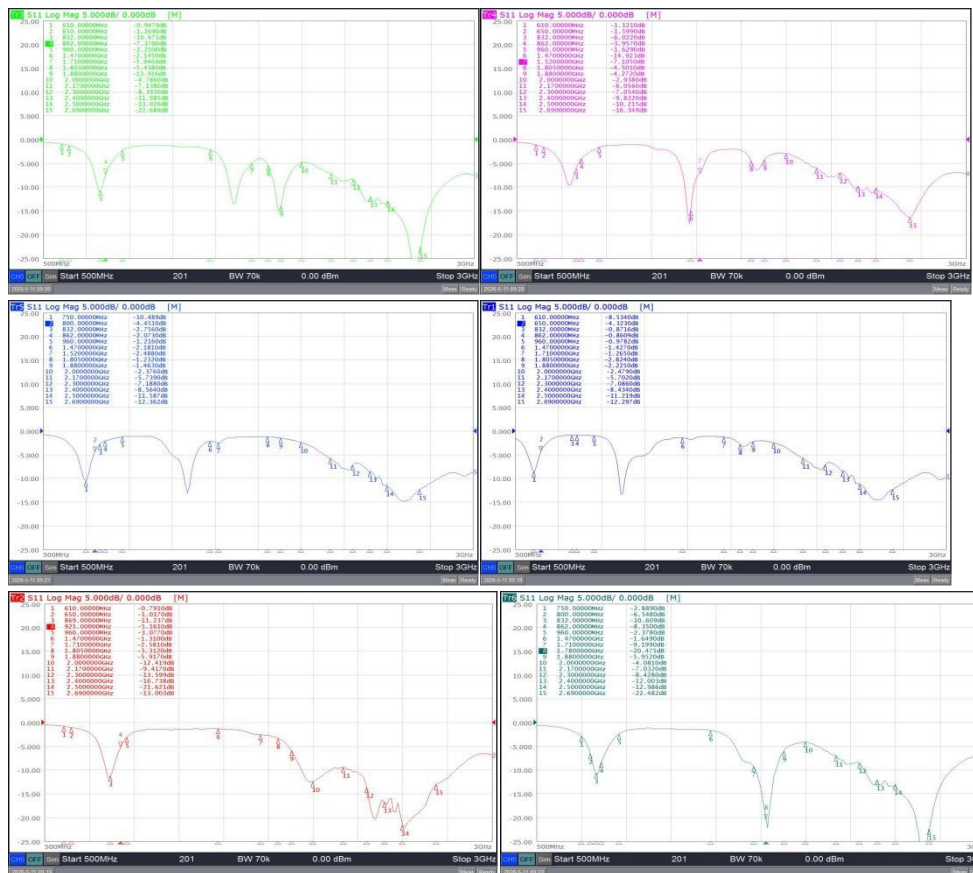




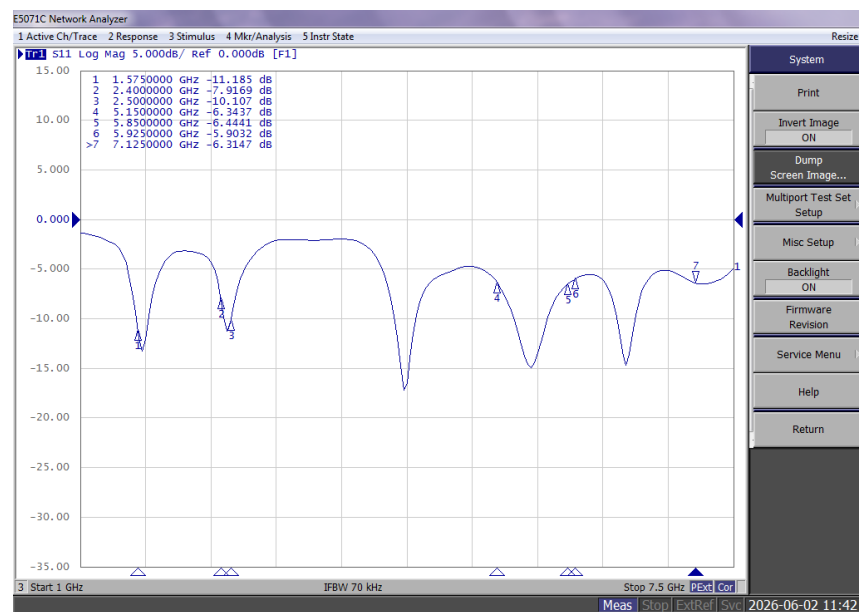
Antenna3



Antenna4



Antenna5



Antenna7

