Customer: Duoke
Project: DK096 US version
Structure: Xiaoxiang-13316888409
RF: Long Yaobin -15874137313
Date:April 17, 2025

Antenna Debugging Report

Report type:

Version number: V2.0

Machine status: Trial production machine

Antenna frequency band:

GSM:B2/B3/B5/B8

WCDMA:W1/W2/W4/W5/W8

FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B19/B20/B26/B28B/B28A/B66

TDD-LTE: B40/B41

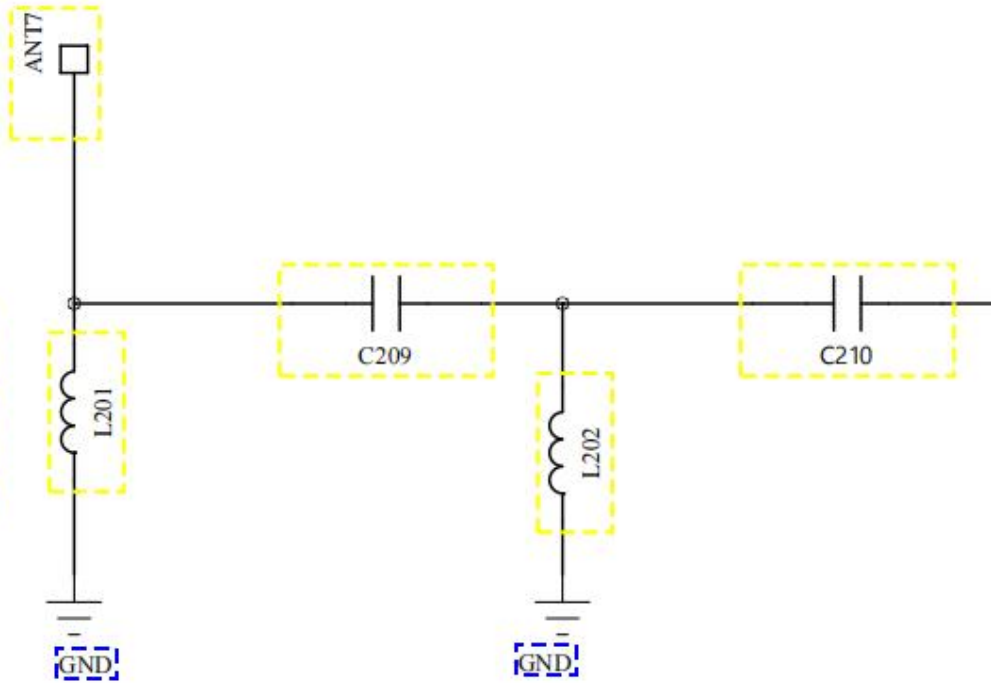
GPS and other satellite positioning antennas

2.4G/5G WIFI

Bluetooth

PCB small board (ANT0)

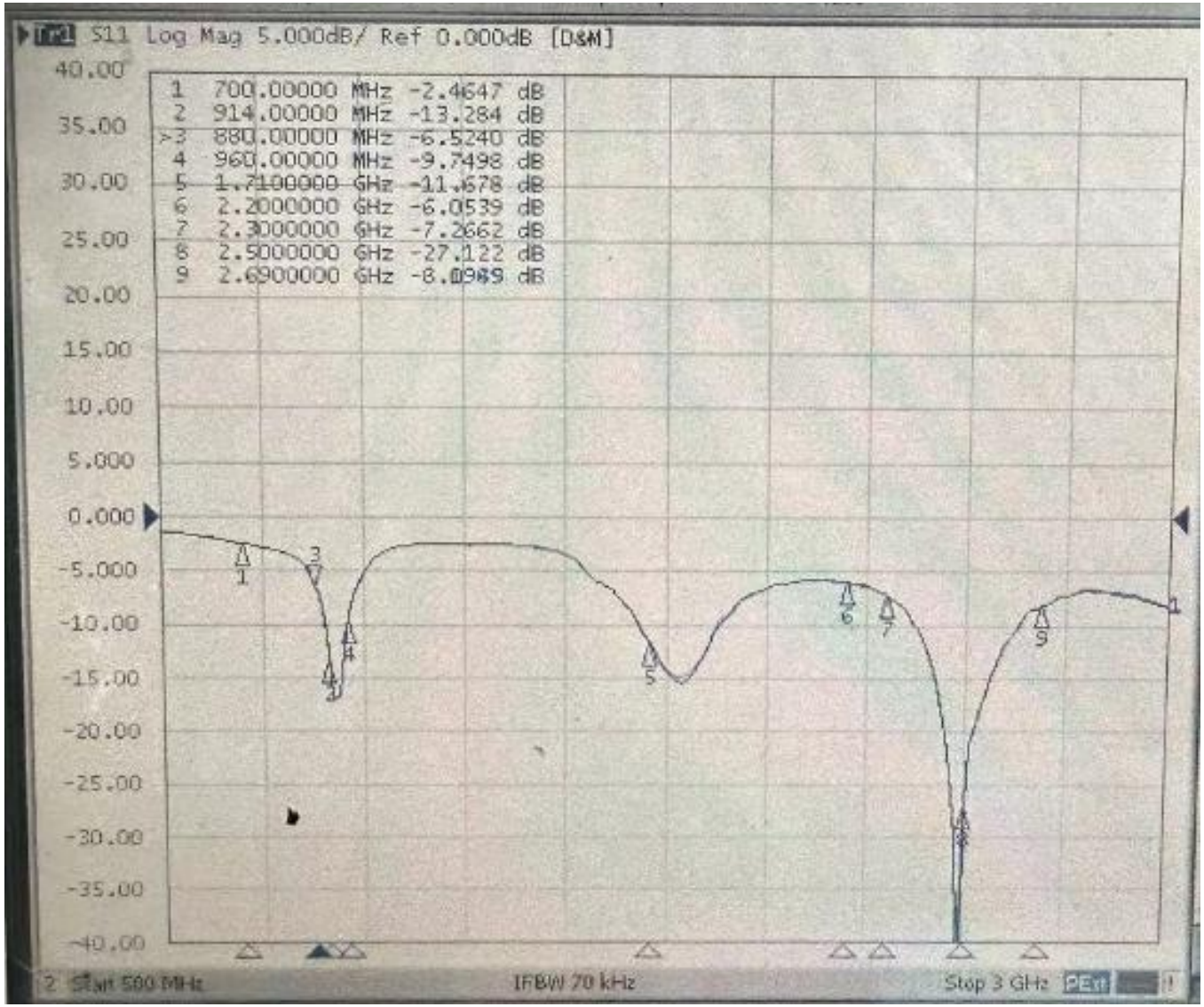
0201 specification		
Element	Value	PCB Tag Number
E1(0201)	10nH	L201
E2(0201)	4.7pF	C209
E3(0201)	0.5pF	L202
E4(0201)	3.9nH	C210



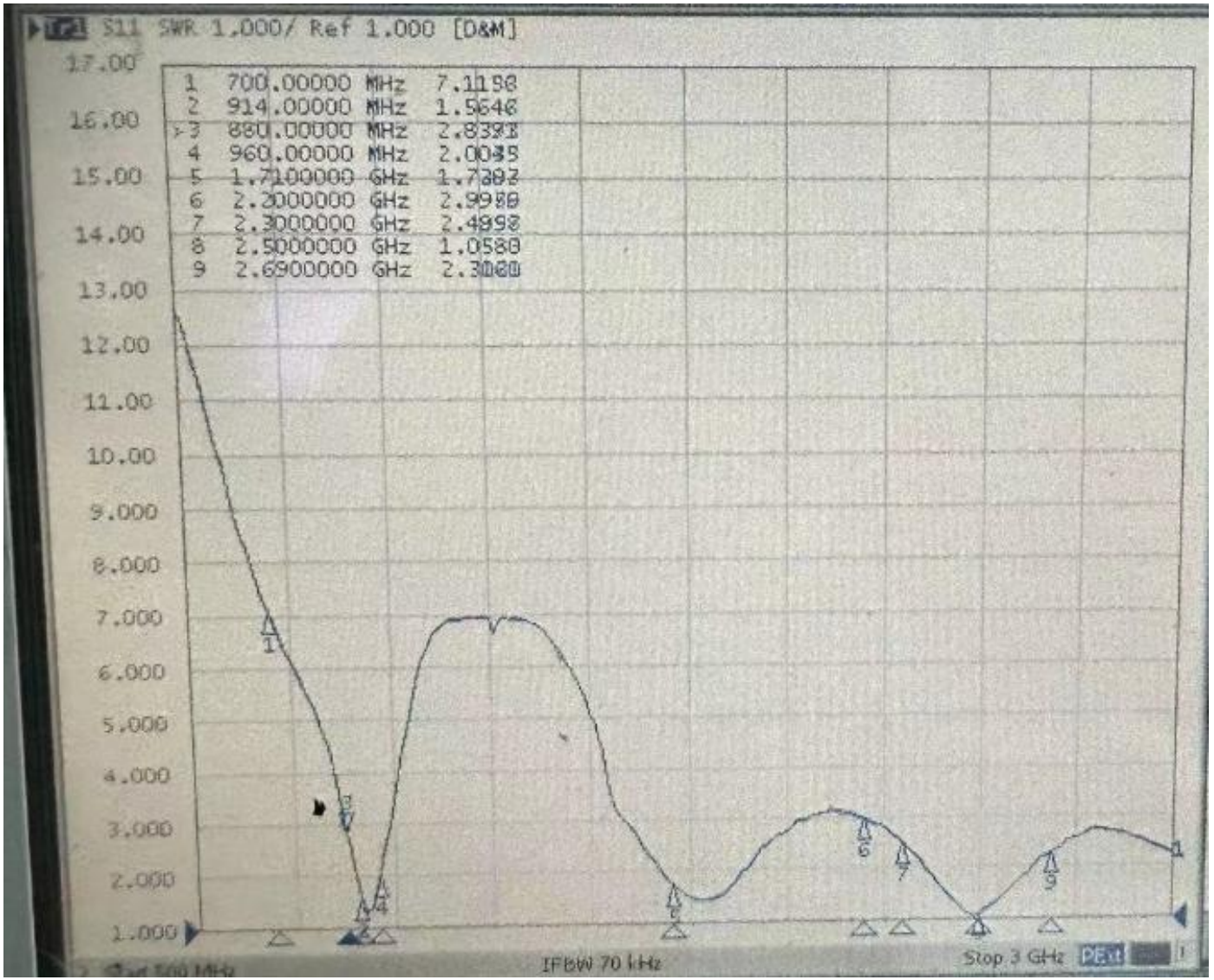
PCB small board (ANT0)

DK096 small board main antenna switch logic		
RF1	0Ω （位号C205）	GSM:900RX /1800/1900 LTE-FDD:B1/B2/B7 LTE_TDD:B40/41 WCDMA:B1/B2
RF2	15nH （位号C206）	FDD-LTE:B12/B13/B17/B28A/28B
RF3	6.2nH （位号C201）	GSM:850TX LTE-FDD:B5/B19/B20/B26 WCDMA:B5
RF4	2.7nH （位号C202）	GSM850RX/900TX WCDMA:B4/B8 LTE-FDD:B3/B4/B8/B66

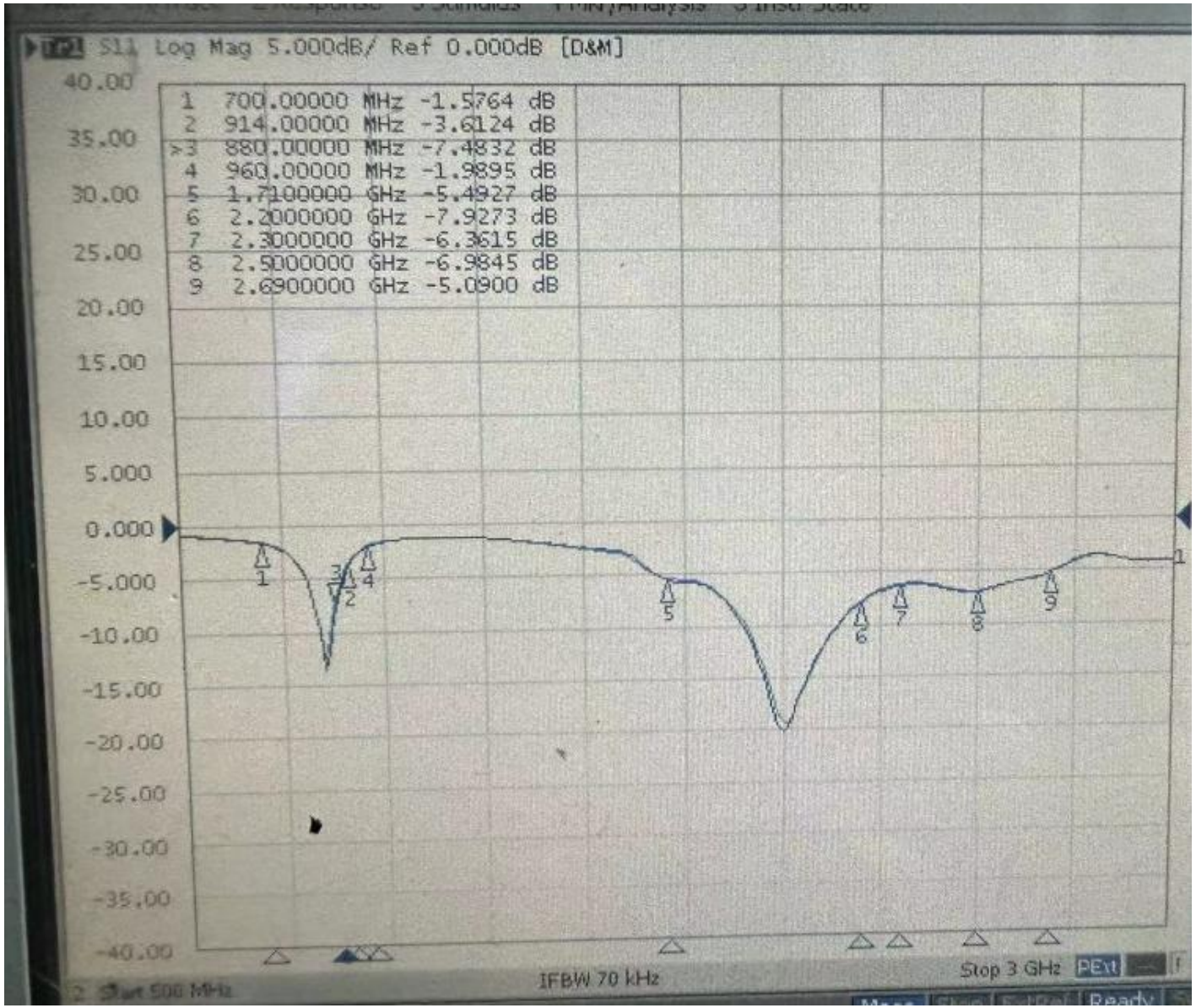
ANT0 LOG MAG


Tr1 S11 Log Mag 5.000dB/ Ref 0.000dB [D&M]
1 700.00000 MHz -2.4647 dB
2 914.00000 MHz -13.284 dB
>3 880.00000 MHz -6.5240 dB
4 960.00000 MHz -9.7498 dB
5 1.7100000 GHz -11.678 dB
6 2.2000000 GHz -6.0539 dB
7 2.3000000 GHz -7.2662 dB
8 2.5000000 GHz -27.122 dB
9 2.6900000 GHz -8.0969 dB
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
-40.00
Start 500 MHz
IFBW 70 kHz
Stop 3 GHz

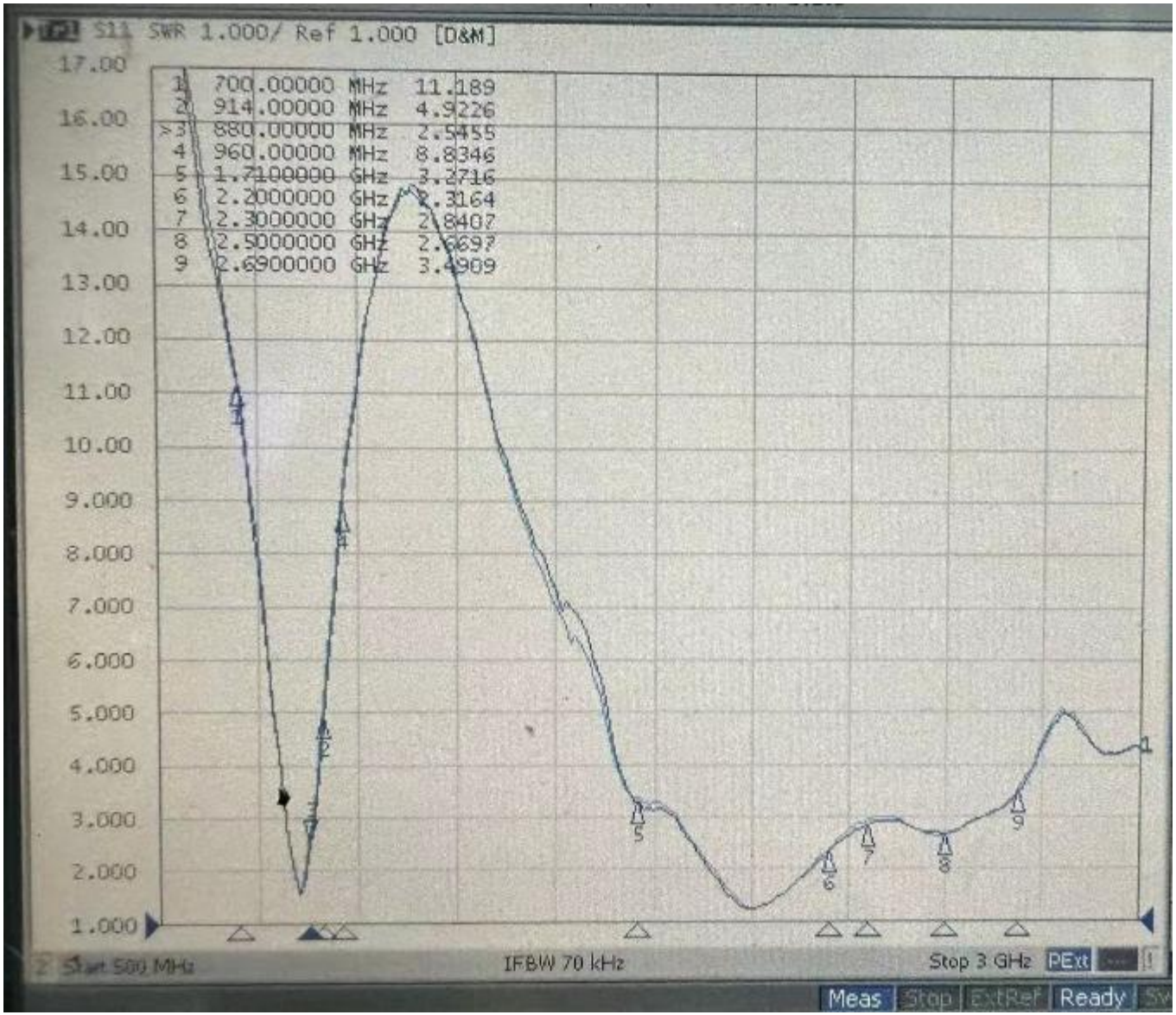
ANT0 SWR


S11 SWR 1.000/ Ref 1.000 [D&M]
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 700.00000 MHz 7.1198
2 914.00000 MHz 1.5646
>3 880.00000 MHz 2.8328
4 960.00000 MHz 2.0035
5 1.7100000 GHz 1.7382
6 2.2000000 GHz 2.9900
7 2.3000000 GHz 2.4898
8 2.5000000 GHz 1.0580
9 2.6900000 GHz 2.3060
IFBW 70 kHz
Stop 3 GHz

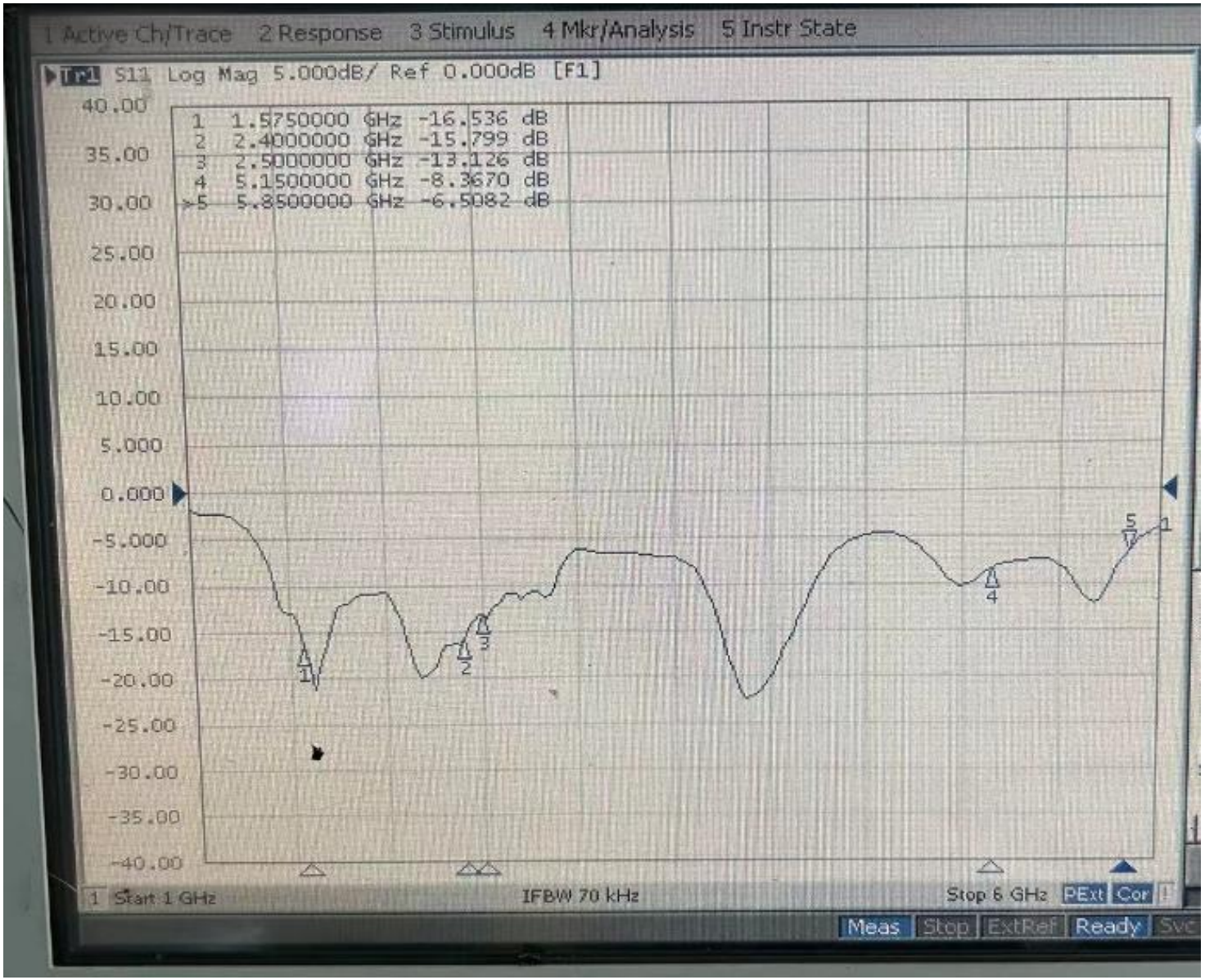
ANT1 LOG MAG


S11 Log Mag 5.000dB/ Ref 0.000dB [D&M]
1 700.00000 MHz -1.5764 dB
2 914.00000 MHz -3.6124 dB
>3 880.00000 MHz -7.4832 dB
4 960.00000 MHz -1.9895 dB
5 1.7100000 GHz -5.4927 dB
6 2.2000000 GHz -7.9273 dB
7 2.3000000 GHz -6.3615 dB
8 2.5000000 GHz -6.9845 dB
9 2.6900000 GHz -5.0900 dB
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
-30.00
-35.00
-40.00
IFBW 70 kHz
Stop 3 GHz

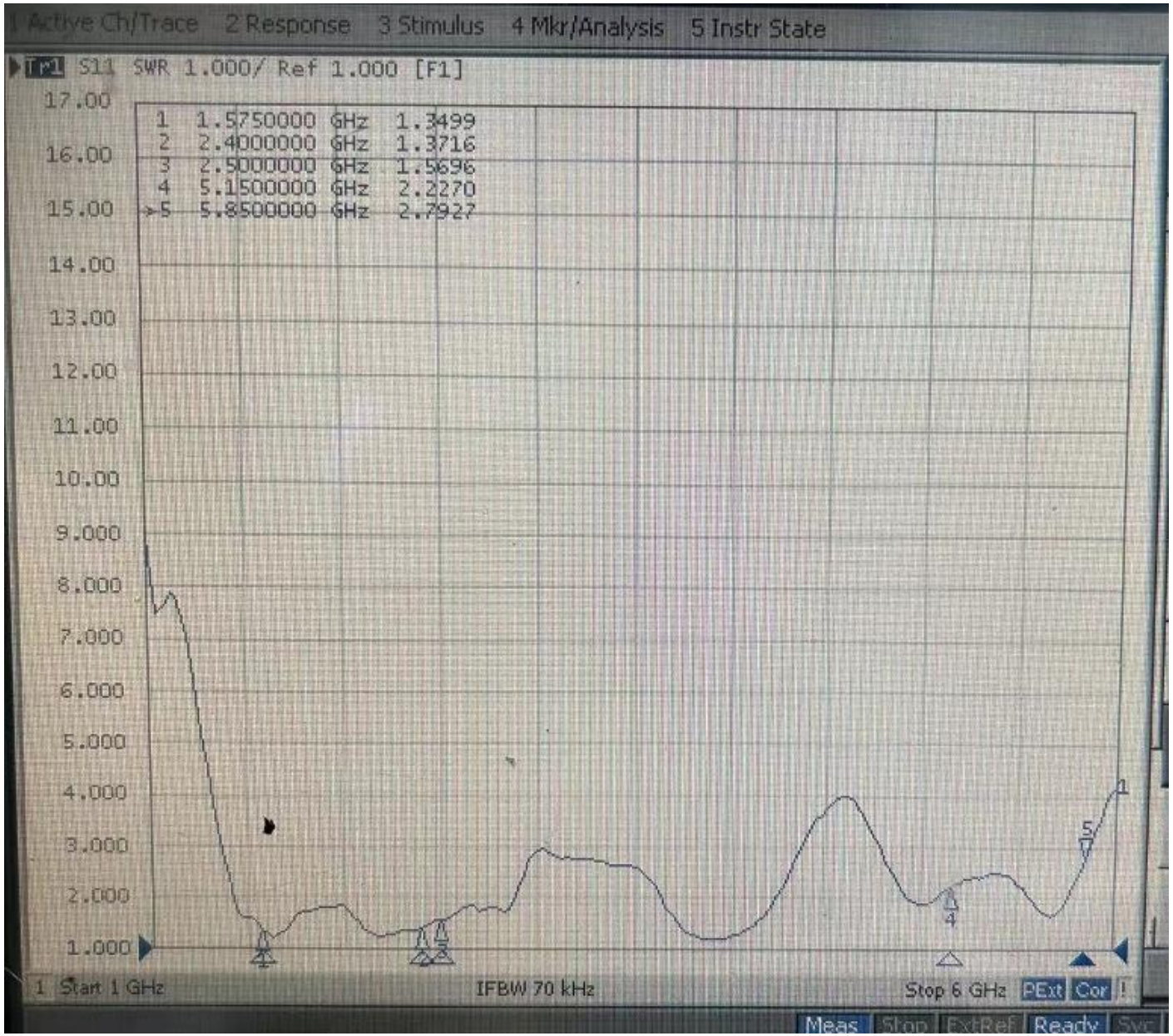
ANT1 SWR


S11 SWR 1.000/ Ref 1.000 [D&M]
1 700.00000 MHz 11.189
2 914.00000 MHz 4.9226
>3 880.00000 MHz 2.5455
4 960.00000 MHz 8.8346
5 1.7100000 GHz 3.2716
6 2.2000000 GHz 2.3164
7 2.3000000 GHz 2.8407
8 2.5000000 GHz 2.6697
9 2.6900000 GHz 3.4909
17.00
16.00
15.00
14.00
13.00
12.00
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
Start 500 MHz
IFBW 70 kHz
Stop 3 GHz
PExt
Meas
Stop
ExtRef
Ready

GPS/Wifi/BT antenna LOG MAG



GPS/Wifi/BT antenna SWR



Antenna gain

Frequency（MHZ)	Average Gain(dBi）	Peak Gain(dBi）	Frequency（MHZ)	Average Gain(dBi）	Peak Gain(dBi）
GSM850	-6.8	-1.1	LTE B13	-7.1	-1.9
GSM900	-5.7	-0.2	LTE B17	-6.8	-1.5
DCS1800	-4.1	0.4	LTE B19	-6.3	-1.1
PCS1900	-4.8	0.2	LTE B20	-6.1	-0.9
WCDMA B1	-4.3	0.5	LTE B26	-6.4	-1.1
WCDMA B2	-4.8	0.2	LTE B28A	-6.8	-1.9
WCDMA B4	-4.4	0.3	LTE B28B	-6.9	-2.1
WCDMA B5	-6.8	-1.1	LTE B66	-4.5	0.7
WCDMA B8	-5.7	-0.2	LTE B40	-4.7	0.2
LTE B1	-4.3	0.5	LTE B41	-5.1	-0.3
LTE B2	-4.8	0.2	WIFI 2.4G/BT	-4.0	1.95
LTE B3	-4.1	0.4	WIFI 5.8G	-5.7	0.33
LTE B4	-4.4	0.3	GPS	-4.3	1.17
LTE B5	-6.8	-1.1			
LTE B7	-5.1	-0.3			
LTE B8	-5.6	-0.2			
LTE B12	-6.9	-1.8			

Free Space-3D - Machine Screen Off			
Band	Channal	ANT0 TRP	ANT0+ANT1 TIS
GSM850	128	24.2	
	190	23.2	
	251	22.4	-101.9
EGSM	1	23.9	
	62	23.9	
	124	24.2	-101.3
DCS	512	25.3	
	698	25.3	
	885	25.1	-103.1
PCS	512	24.9	
	661	24.8	
	810	24.8	-103.2

OTA test data

Free Space-3D - Machine Screen Off			
Band	Channal	ANT0 TRP	ANT0+ANT1 TIS
WCDMA-B1	10562	17.4	
	10700	16.3	
	10838	16.2	-105.8
WCDMA-B2	9662	17.3	
	9800	17.1	
	9938	16.8	-106.6
WCDMA-B4	1538	17.3	
	1675	17.8	
	1738	18.3	-105.7
WCDMA-B5	4357	14.7	
	4410	14.7	
	4458	15.1	-103.3

OTA test data

Free Space-3D - Machine Screen Off			
Band	Channal	ANT0 TRP	ANT0+ANT1 TIS
WCDMA-B8	2937	15.2	
	3013	15.9	
	3088	15.7	-102.4
FDD-B1-10M	50	18.5	
	300	18.8	
	550	18.1	-93.4
FDD-B2-10M	650	18.7	
	900	19.3	
	1150	18.5	-93.5
FDD-B3-10M	1250	18.5	
	1575	18.7	
	1900	18.9	-92.9

OTA test data

Free Space-3D - Machine Screen Off			
Band	Channal	ANT0 TRP	ANT0+ANT1 TIS
FDD-10M-B4	2000	18.7	
	2175	18.9	
	2350	19.1	-94.1
FDD-10M-B5	2450	15.8	
	2525	15.8	
	2600	15.8	-91.7
FDD-10M-B7	2800	18.6	
	3100	18.9	
	3400	18.6	-92.9
FDD-10M-B8	3500	16.4	
	3625	17.2	
	3750	17.9	-91.8

OTA test data

Free Space-3D - Machine Screen Off			
Band	Channal	ANT0 TRP	ANT0+ANT1 TIS
FDD-10M-B12	5060	15.5	
	5095	16.2	
	5130	16.1	-91.7
FDD-10M-B13			
	5230	15.4	-91.8
FDD-10M-B17	5780	15.7	
	5790	16.4	
	5800	16.5	-90.7
FDD-10M-B19	6050	15.1	
	6075	15.2	
	6100	15.4	-91.8

OTA test data

Free Space-3D - Machine Screen Off			
Band	Channal	ANT0 TRP	ANT0+ANT1 TIS
FDD-10M-B20	6200	15.8	
	6300	16.2	
	6400	15.5	-91.4
FDD-10M-B26	8740	16.6	
	8865	16.7	
	8990	16.9	-92.2
FDD-10M-B28a	9310	16.6	
	9360	15.9	
	9410	16.1	-91.1
FDD-10M-B28b	9460	15.6	
	9510	15.5	
	9560	16.2	-90.2
FDD-10M-B66	66536	18.3	
	66786	18.5	
	67036	18.3	-92.6

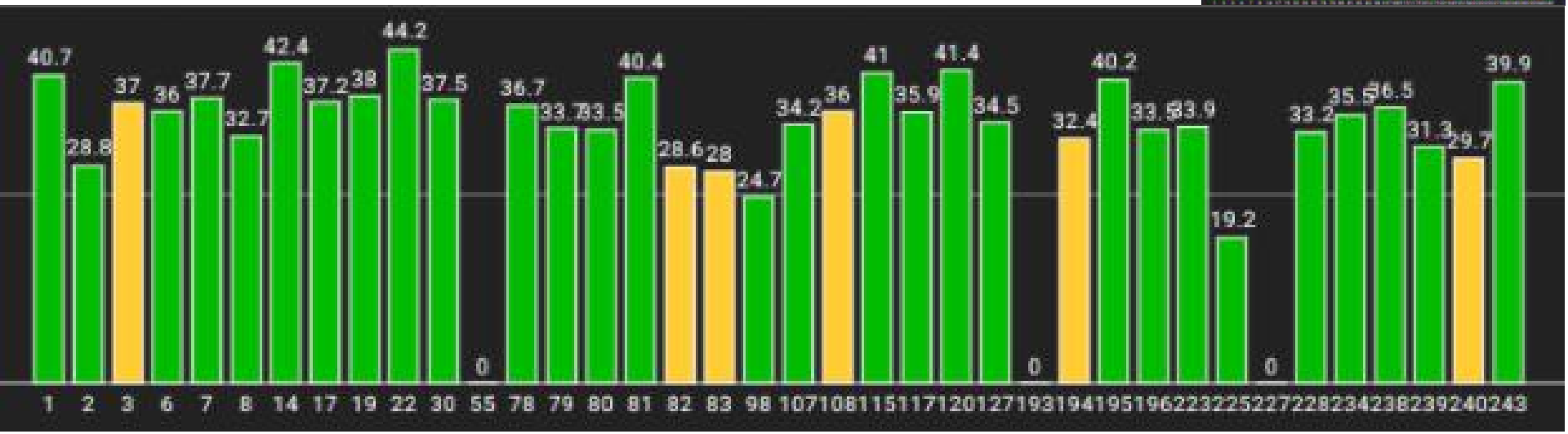
OTA test data

Free Space-3D - Machine Screen Off			
Band	Channal	ANT0 TRP	ANT0+ANT1 TIS
TDD-20M-B40	38750	18.8	
	39150	18.7	
	39550	18.5	-91.4
TDD-20M-B41			
	40620	18.6	-91.6

OTA test data

Free Space-3D - Machine Screen Off				
	Band	Channel	TRP/dBm	TIS/dBm
2.4G	b(11M)	1	12.3	
		6	12.1	
		13	14.2	-83.5
	g(54M)	1	11.6	
		6	10.9	
		13	12.1	-72.4
	n(MCS7)	1	11.9	
		6	11.3	
		13	12.5	-67.5
5.8G	a(54M)	36	12.6	
		149	12.7	
		165	12.8	-71.7
	n(MCS7)	36	11.8	
		149	11.9	
		165	11.8	-67.6
	ac (MCS8)	36	11.7	
		149	11.8	
		165	11.8	-65.9

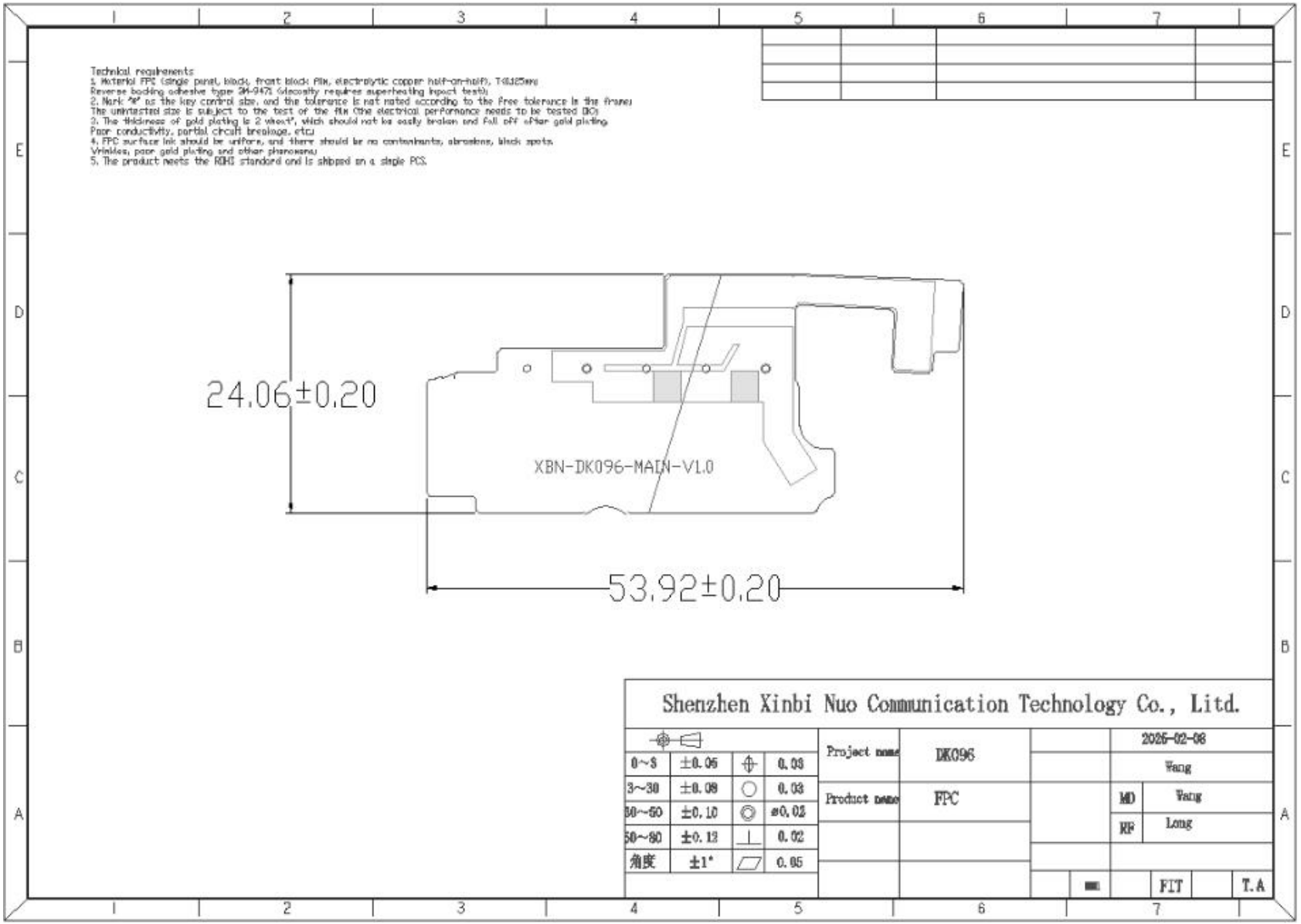
GPS antenna measurement, location: Intersection of Ping'an Avenue
Weather: Cloudy



NFC antenna (motherboard):

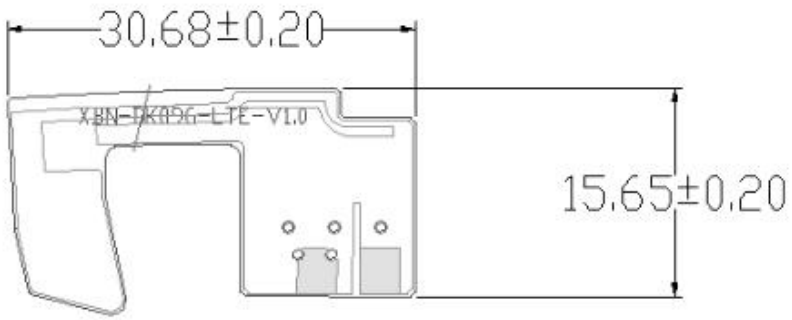
DK090	
label	Reading distance (mm)
Card 1	39
Card 2	40
Card 3	25
Card 4	15

Antenna drawing



Antenna drawing

Technical requirements
1. Material: FPC (single panel, black, front black film, electrolytic copper half-annealed, T=0.025mm)
Reverse backing adhesive type: 3M-9471 (Viscosity requires superheating impact test)
2. Mark "*" as the key control size, and the tolerance is not noted according to the Free tolerance in the frame
The untolerated size is subject to the test of the film (the electrical performance needs to be tested OK)
3. The thickness of gold plating is 2 u'inch, which should not be easily broken and fall off after gold plating.
Poor conductivity, partial circuit breakage, etc.
4. FPC surface ink should be uniform, and there should be no contaminants, abrasions, black spots.
Wrinkles, poor gold plating and other phenomena
5. The product meets the ROHS standard and is shipped on a single PCS.



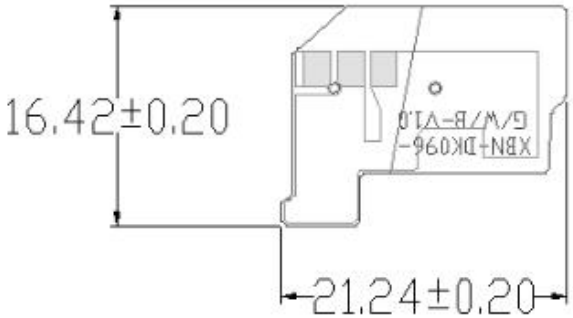
Shenzhen Xinbi Nuo Communication Technology Co., Litd.

0~3	±0.06	⌖	0.03
3~30	±0.08	○	0.03
30~50	±0.10	◎	⌀0.02
50~90	±0.12	⊥	0.02
角度	±1°	▱	0.05

Project name	DK096		2025-02-08
			Wang
Product name	FPC	MD	Wang
		RF	Long
		FIT	T.A

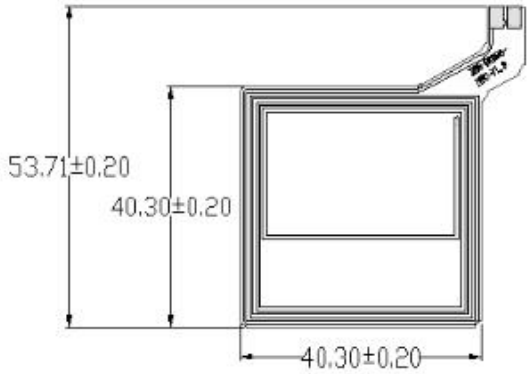
Antenna drawing

Technical requirements
1. Material FPC (single panel, black, front black film, electrolytic copper half-an-half), T0.125mm
Reverse backing adhesive type: 3M-9471 (viscosity requires superheating impact test)
2. Mark "A" as the key control size, and the tolerance is not noted according to the free tolerance in the frame
The untolerated size is subject to the test of the film (the electrical performance needs to be tested OK)
3. The thickness of gold plating is 2 uinch", which should not be easily broken and fall off after gold plating
Poor conductivity, partial circuit breakage, etc.)
4. FPC surface ink should be uniform, and there should be no contaminants, abrasions, black spots
Wrinkles, poor gold plating and other phenomena)
5. The product meets the ROHS standard and is shipped on a single PCS.



Shenzhen Xinbi Nuo Communication Technology Co., Litd.						
				Project name	DK096	2025-02-06
0~3	±0.06	⌖	0.08			Wang
3~30	±0.08	○	0.08	Product name	FPC	MD Wang
30~50	±0.10	◎	⌀0.02			RF Long
50~80	±0.12	⊥	0.02			
角度	±1°	▱	0.05			
					mm	FIT T.A

Antenna drawing



Technical requirements

1. Material: FPC(single-sided panel, black, white, half electrolytic copper),T:0.125mm;

Reverse adhesive type: 3M-9471(adhesion needs to be tested by overheat impact);

2. Dimensions marked with an asterisk (*) are key controlled dimensions. For those not specified with tolerances, the free tolerances in the drawing frame shall be controlled.

Unspecified dimensions shall be subject to the inspection of the film (electrical performance must be tested and found to be okay).

3. The gold plating thickness should be 2 microns. There should be no easy breakage or peeling after gold plating.

Poor conductivity, partial circuit breakage and other defects;

4. The ink on the FPC surface must be uniform and free from contaminants, scratches, and black spots

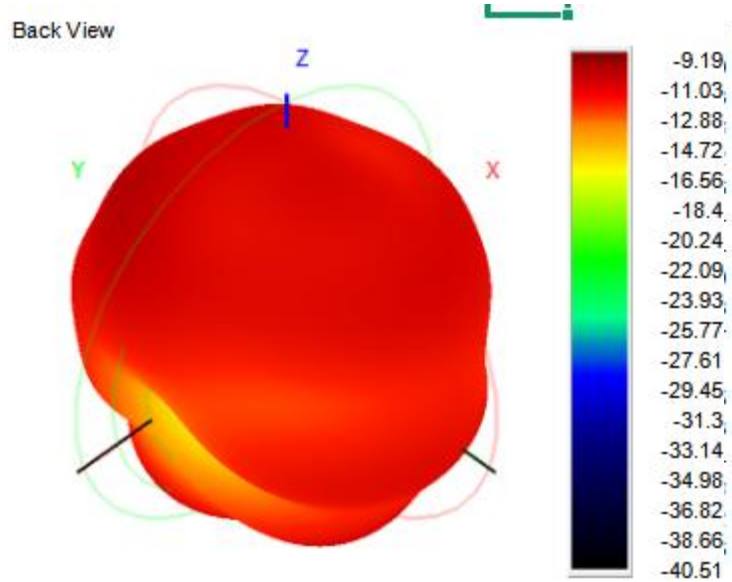
Wrinkling, poor gold plating and other phenomena;

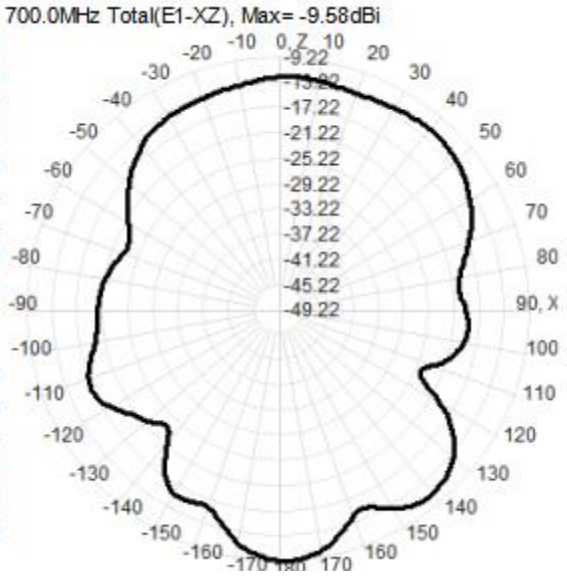
5. The product complies with the ROHS standard and is sh

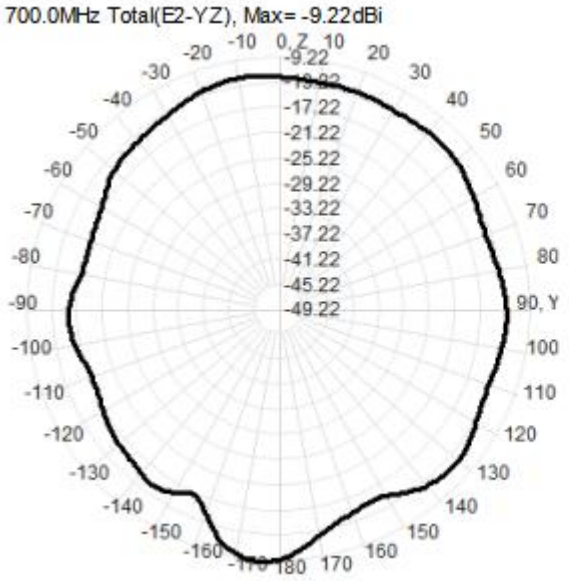
Shenzhen Xinbinuo Communication Technology Co., LTD

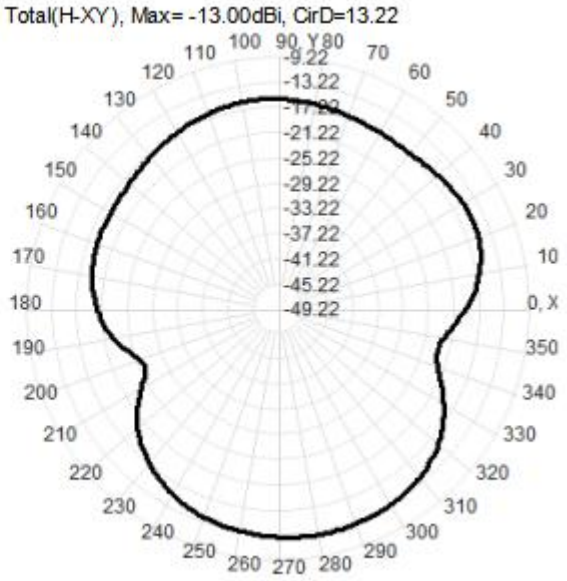
0~3	±0.05	⌖	0.03
3~30	±0.08	○	0.03
30~50	±0.10	◎	ø0.02
50~80	±0.12	⊥	0.02
角度	±1°	▱	0.05

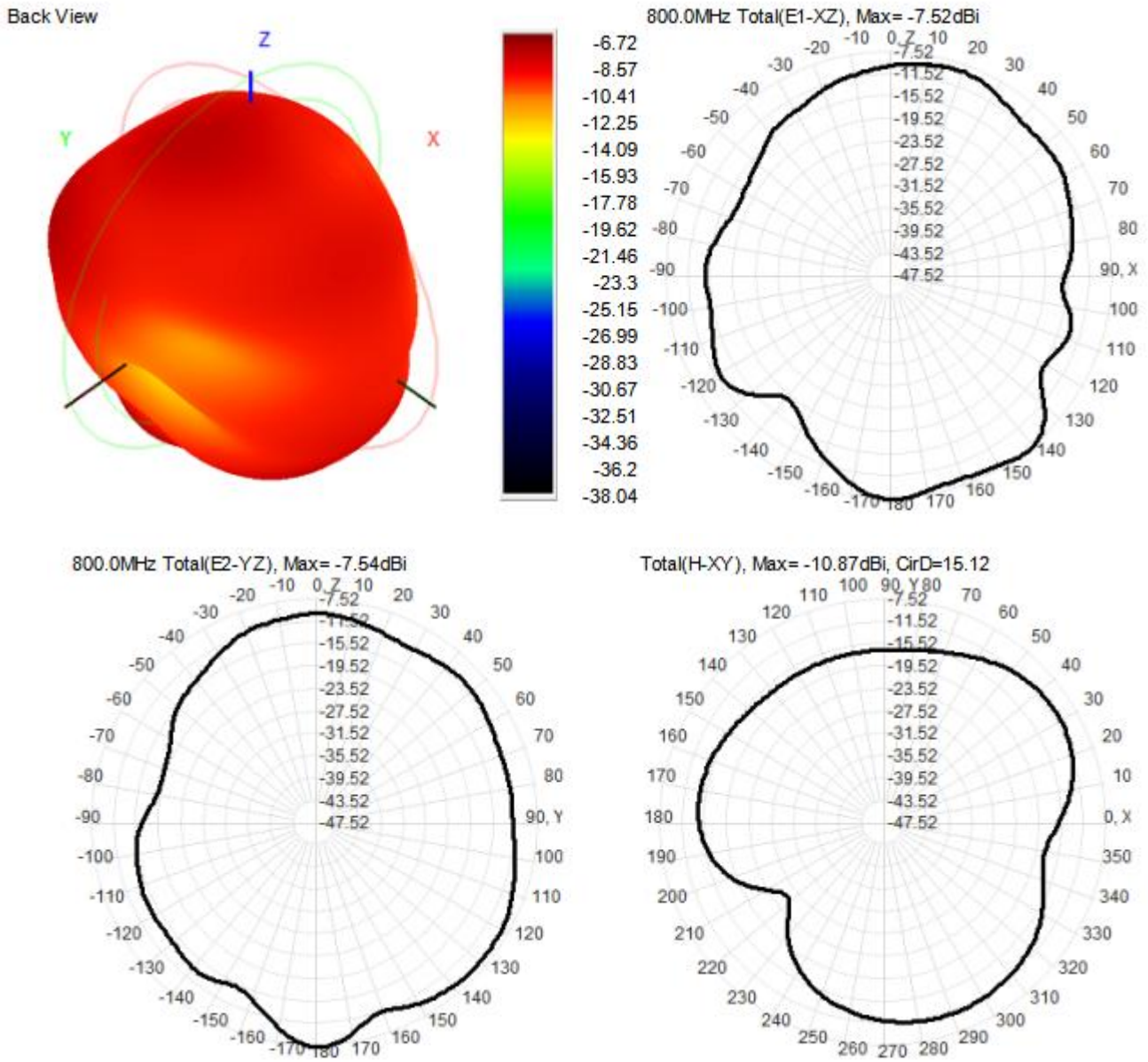
Project Name	DK096		2025-02-08
			xiao
Product Name	NFC	MD	Wang
		RF	xiang
		MD	FIT T.A

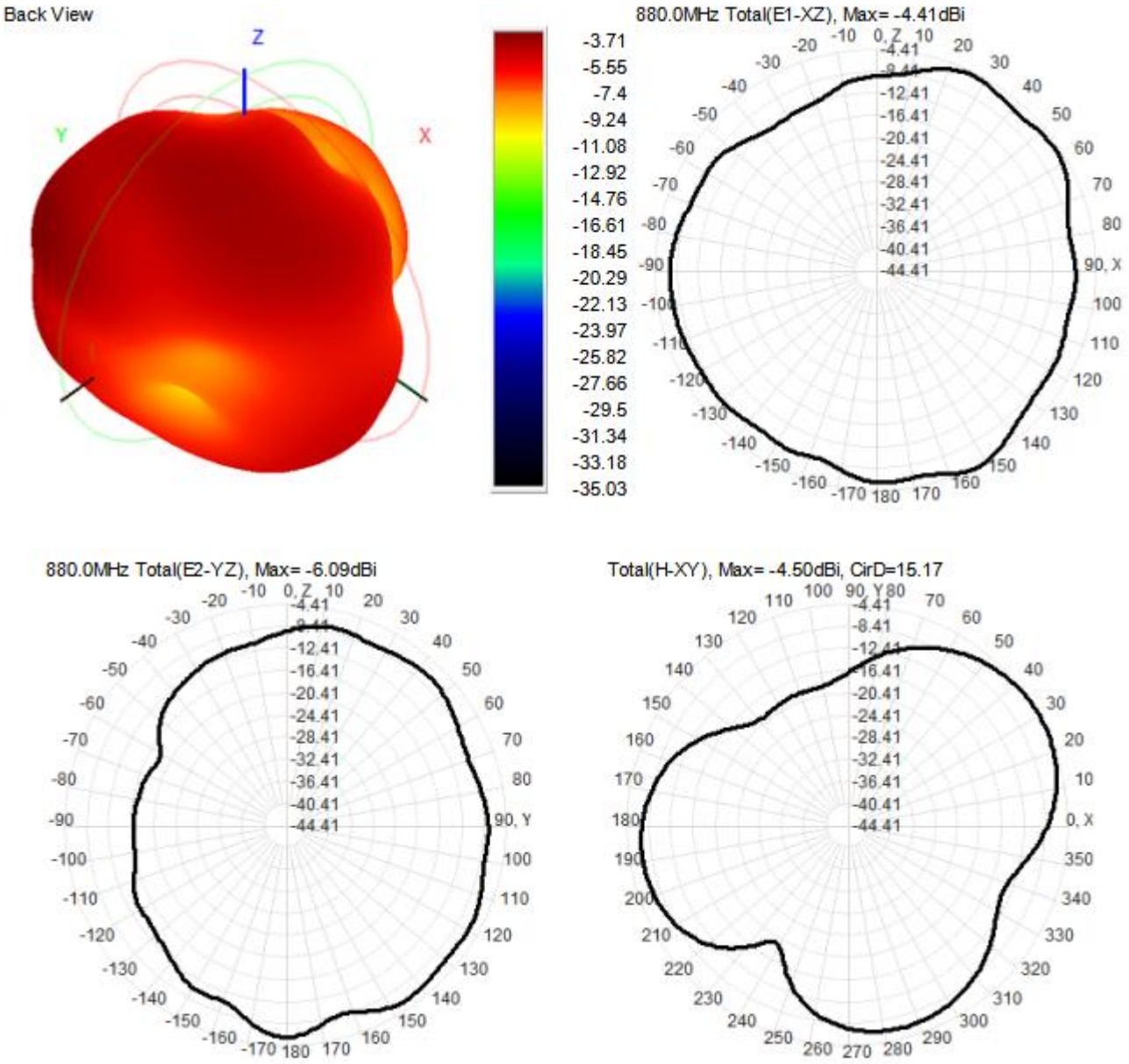

Back View
Z
Y
X
-9.19
-11.03
-12.88
-14.72
-16.56
-18.4
-20.24
-22.09
-23.93
-25.77
-27.61
-29.45
-31.3
-33.14
-34.98
-36.82
-38.66
-40.51

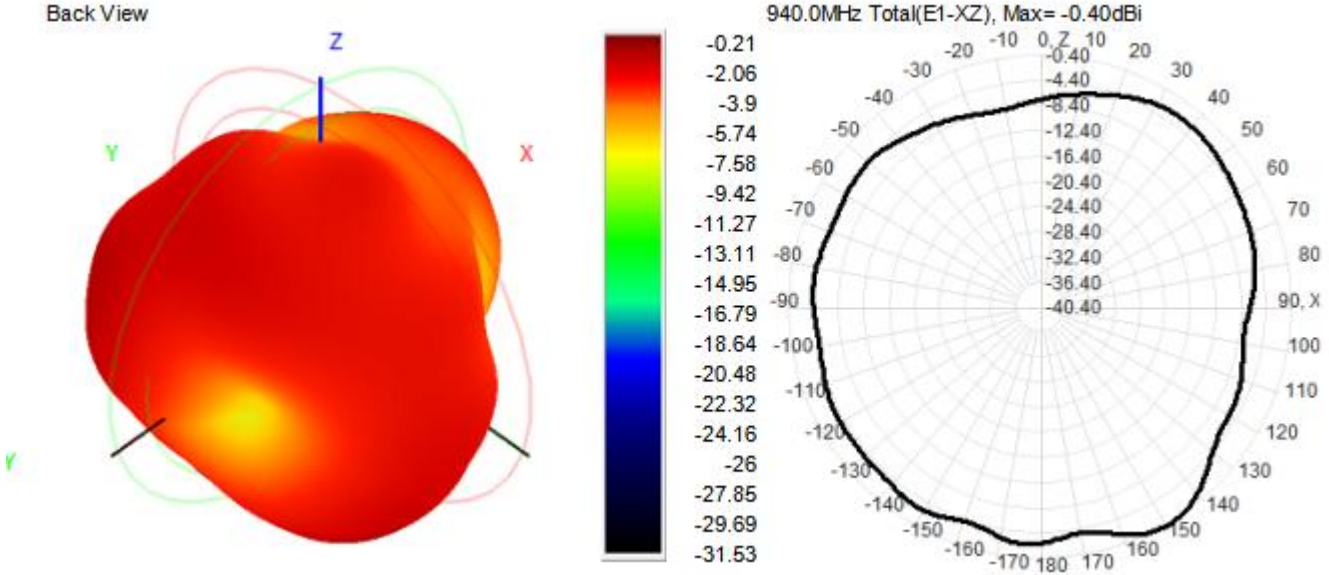

700.0MHz Total(E1-XZ), Max= -9.58dBi
-9.22
-17.22
-21.22
-25.22
-29.22
-33.22
-37.22
-41.22
-45.22
-49.22
90, X
0, Z

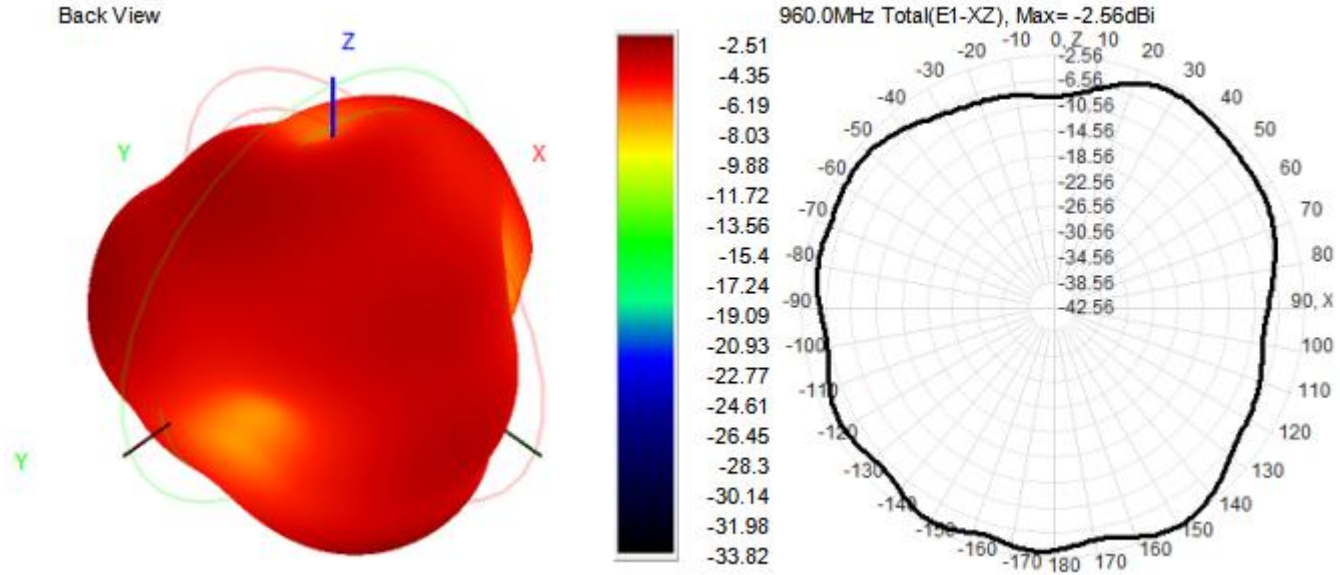

700.0MHz Total(E2-YZ), Max= -9.22dBi
-9.22
-17.22
-21.22
-25.22
-29.22
-33.22
-37.22
-41.22
-45.22
-49.22
90, Y
0, Z

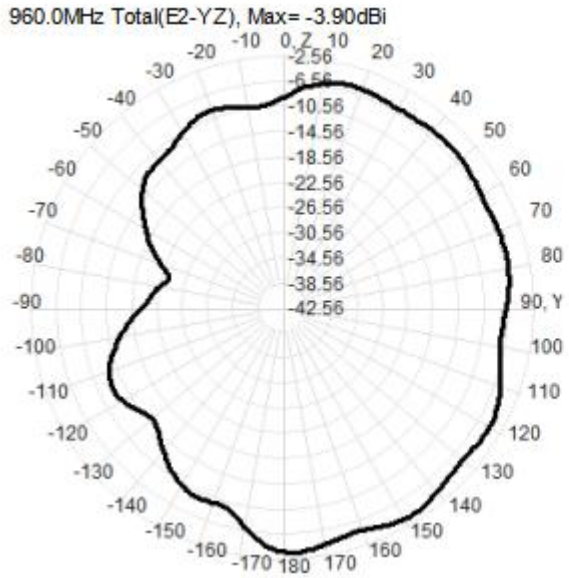

Total(H-XY), Max= -13.00dBi, CirD=13.22
-9.22
-13.22
-21.22
-25.22
-29.22
-33.22
-37.22
-41.22
-45.22
-49.22
0, X
90, Y

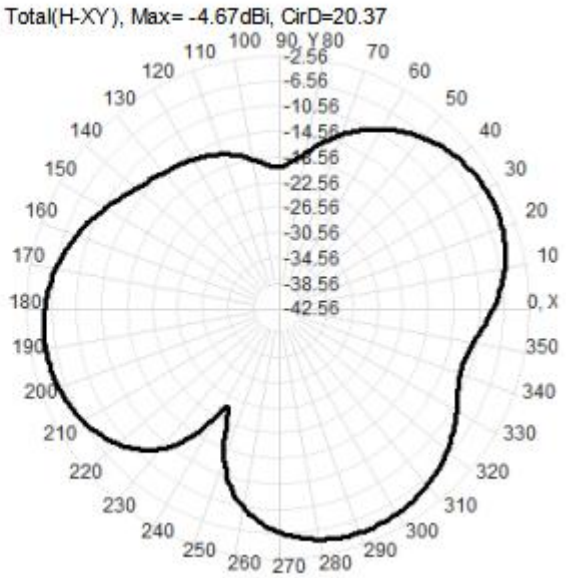

Back View
Z
Y
X
-6.72
-8.57
-10.41
-12.25
-14.09
-15.93
-17.78
-19.62
-21.46
-23.3
-25.15
-26.99
-28.83
-30.67
-32.51
-34.36
-36.2
-38.04
800.0MHz Total(E1-XZ), Max= -7.52dBi
800.0MHz Total(E2-YZ), Max= -7.54dBi
Total(H-XY), Max= -10.87dBi, CirD=15.12

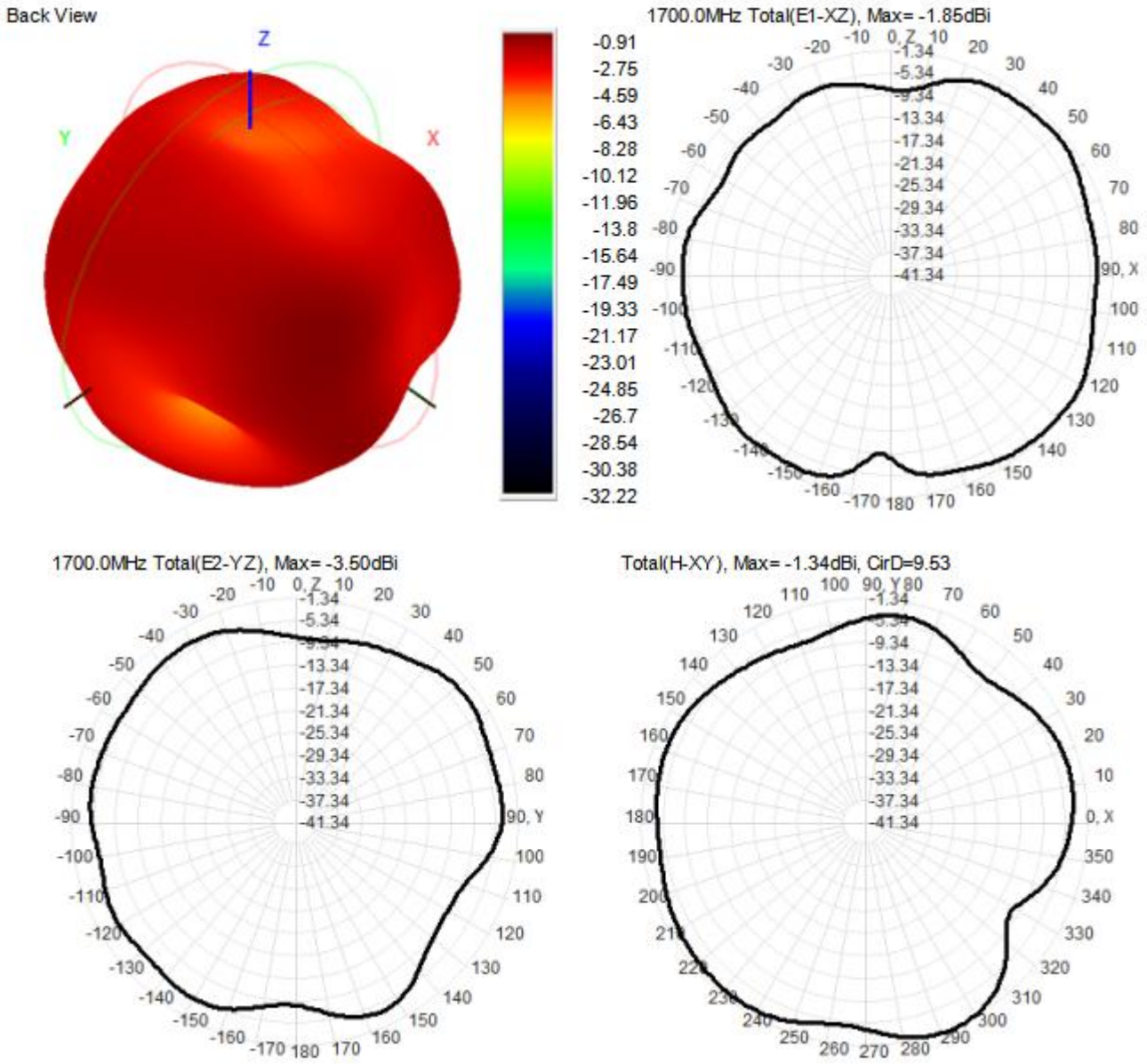

Back View
Z
Y
X
-3.71
-5.55
-7.4
-9.24
-11.08
-12.92
-14.76
-16.61
-18.45
-20.29
-22.13
-23.97
-25.82
-27.66
-29.5
-31.34
-33.18
-35.03
880.0MHz Total(E1-XZ), Max= -4.41dBi
880.0MHz Total(E2-YZ), Max= -6.09dBi
Total(H-XY), Max= -4.50dBi, CirD=15.17

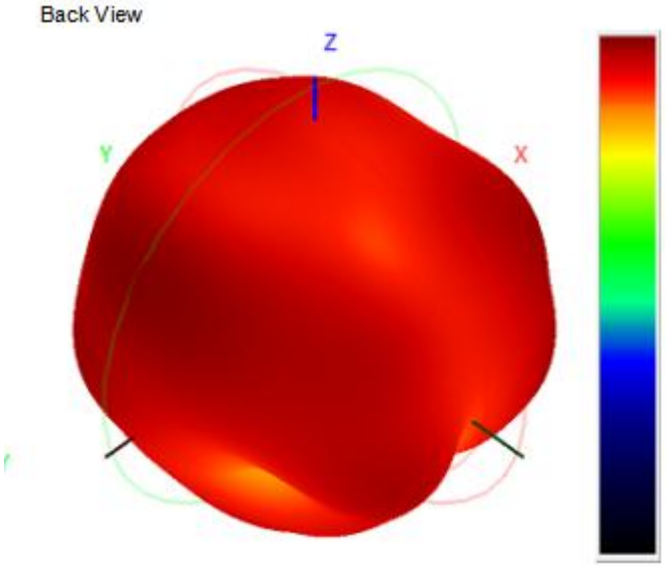

Back View
Z
Y
X
-0.21
-2.06
-3.9
-5.74
-7.58
-9.42
-11.27
-13.11
-14.95
-16.79
-18.64
-20.48
-22.32
-24.16
-26
-27.85
-29.69
-31.53
940.0MHz Total(E1-XZ), Max= -0.40dBi
0, Z
90, X
940.0MHz Total(E2-YZ), Max= -1.38dBi
90, Y
Total(H-XY), Max= -2.99dBi, CirD=17.67
0, X

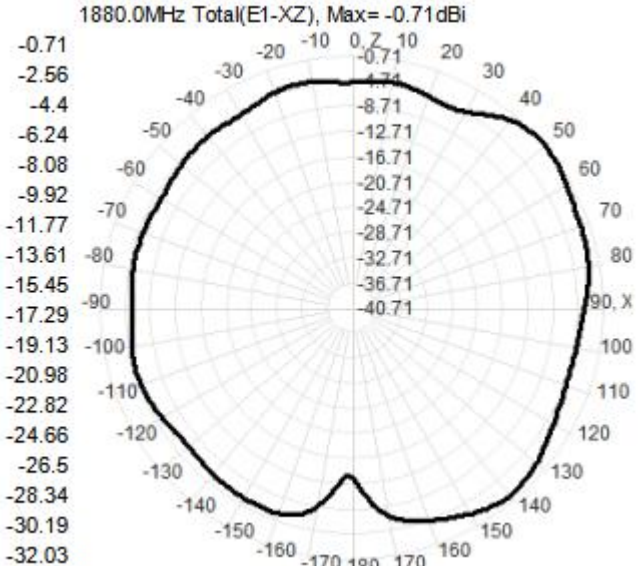

Back View
Z
Y
X
Y
-2.51
-4.35
-6.19
-8.03
-9.88
-11.72
-13.56
-15.4
-17.24
-19.09
-20.93
-22.77
-24.61
-26.45
-28.3
-30.14
-31.98
-33.82
960.0MHz Total(E1-XZ), Max= -2.56dBi
0, Z
90, X
-2.56
-6.56
-10.56
-14.56
-18.56
-22.56
-26.56
-30.56
-34.56
-38.56
-42.56


960.0MHz Total(E2-YZ), Max= -3.90dBi
0, Z
90, Y
-2.56
-6.56
-10.56
-14.56
-18.56
-22.56
-26.56
-30.56
-34.56
-38.56
-42.56

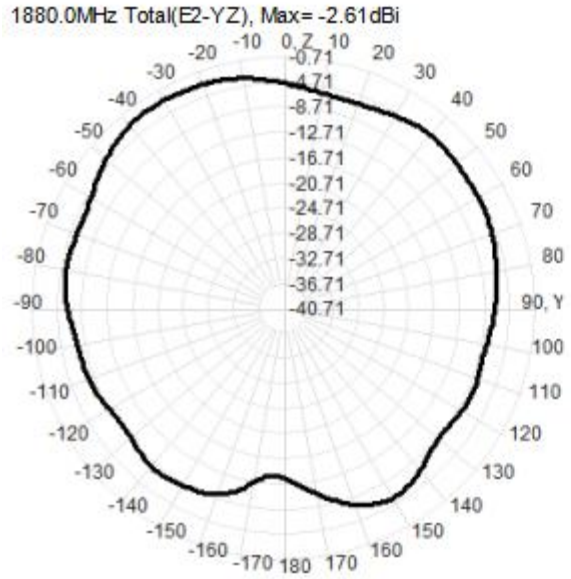

Total(H-XY), Max= -4.67dBi, CirD=20.37
90, Y
0, X
-2.56
-6.56
-10.56
-14.56
-18.56
-22.56
-26.56
-30.56
-34.56
-38.56
-42.56

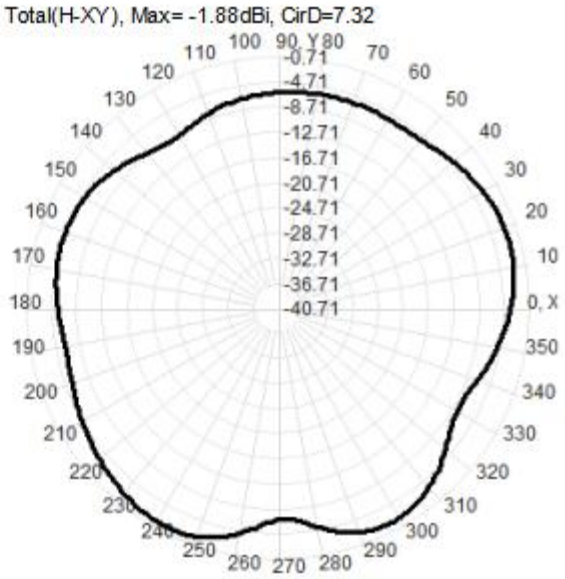

Back View
Z
Y
X
-0.91
-2.75
-4.59
-6.43
-8.28
-10.12
-11.96
-13.8
-15.64
-17.49
-19.33
-21.17
-23.01
-24.85
-26.7
-28.54
-30.38
-32.22
1700.0MHz Total(E1-XZ), Max= -1.85dBi
1700.0MHz Total(E2-YZ), Max= -3.50dBi
Total(H-XY), Max= -1.34dBi, CirD=9.53

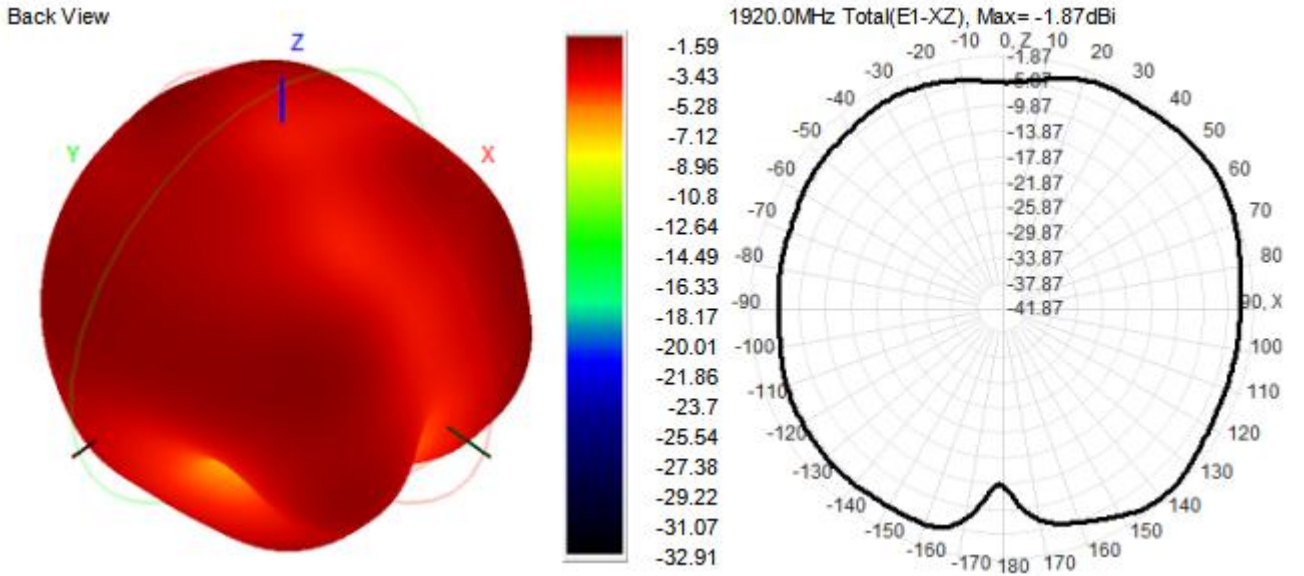

Back View
Z
Y
X

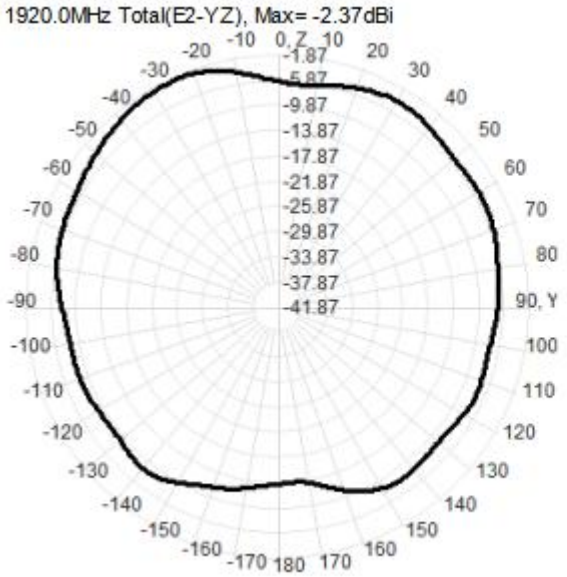

-0.71
-2.56
-4.4
-6.24
-8.08
-9.92
-11.77
-13.61
-15.45
-17.29
-19.13
-20.98
-22.82
-24.66
-26.5
-28.34
-30.19
-32.03

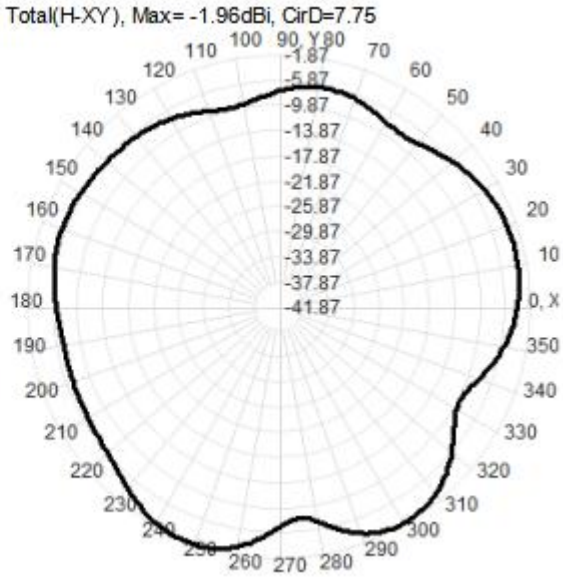
1880.0MHz Total(E1-XZ), Max= -0.71dBi
-0.71
-8.71
-12.71
-16.71
-20.71
-24.71
-28.71
-32.71
-36.71
-40.71
90, X

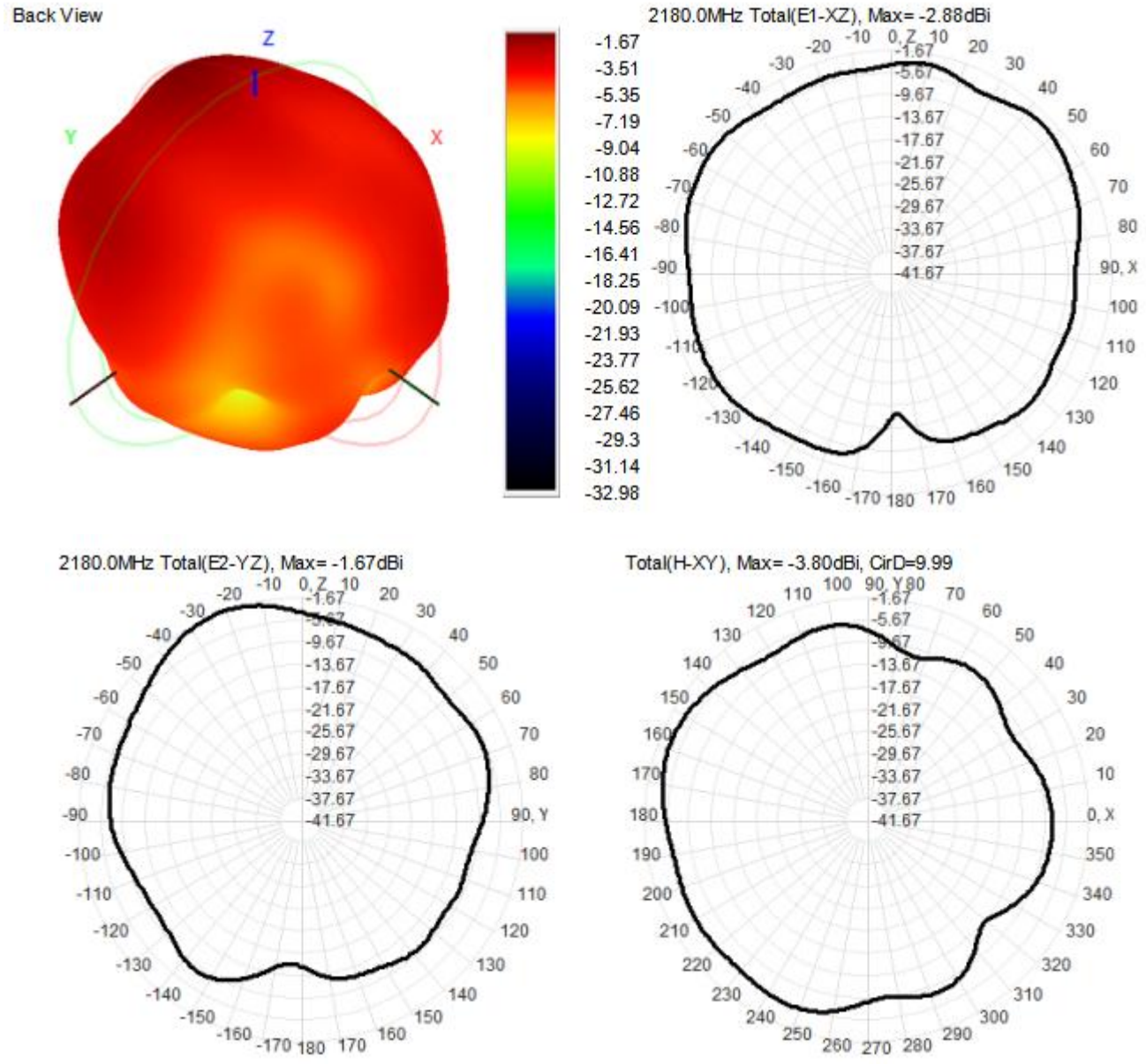

1880.0MHz Total(E2-YZ), Max= -2.61dBi
-0.71
-8.71
-12.71
-16.71
-20.71
-24.71
-28.71
-32.71
-36.71
-40.71
90, Y

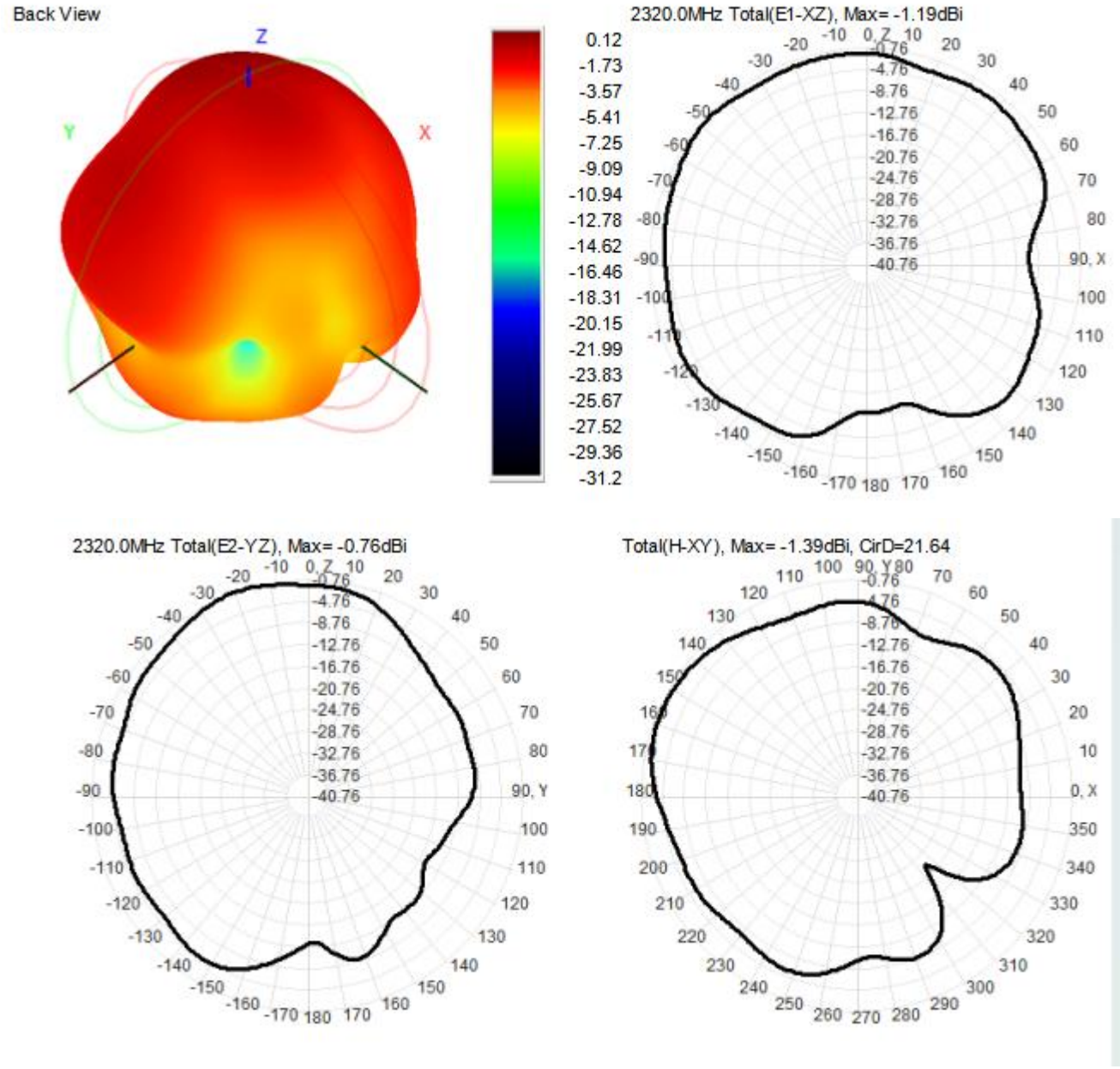

Total(H-XY), Max= -1.88dBi, CirD=7.32
-0.71
-4.71
-8.71
-12.71
-16.71
-20.71
-24.71
-28.71
-32.71
-36.71
-40.71
0, X

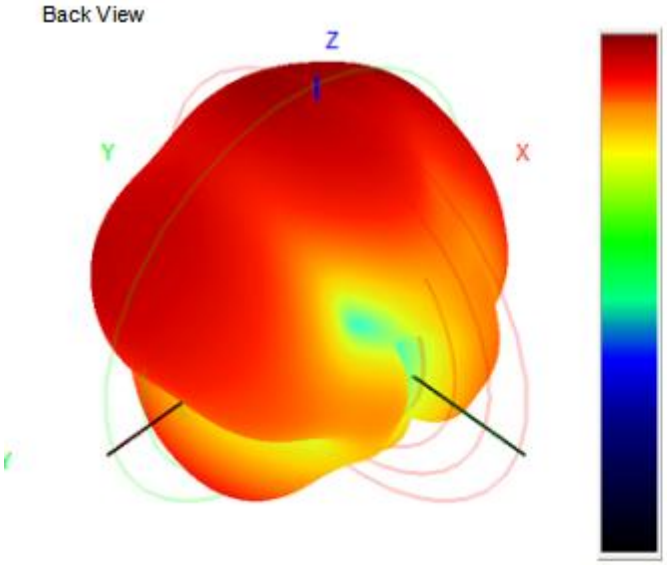

Back View
Z
Y
X
-1.59
-3.43
-5.28
-7.12
-8.96
-10.8
-12.64
-14.49
-16.33
-18.17
-20.01
-21.86
-23.7
-25.54
-27.38
-29.22
-31.07
-32.91
1920.0MHz Total(E1-XZ), Max= -1.87dBi
0, Z
90, X
-1.87
-5.87
-9.87
-13.87
-17.87
-21.87
-25.87
-29.87
-33.87
-37.87
-41.87

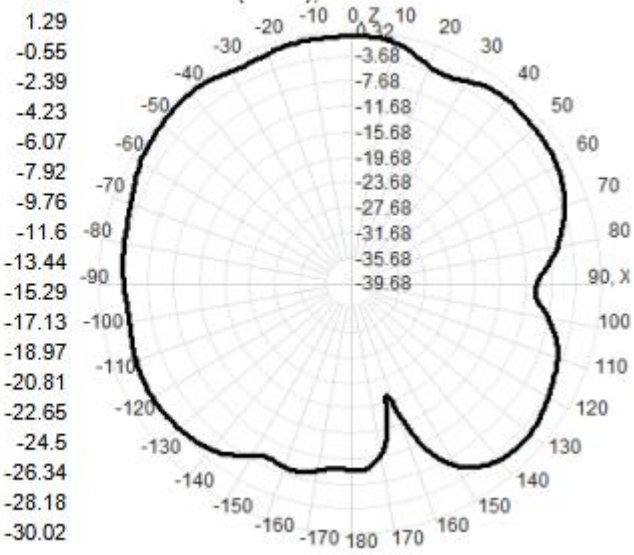

1920.0MHz Total(E2-YZ), Max= -2.37dBi
0, Z
90, Y
-1.87
-5.87
-9.87
-13.87
-17.87
-21.87
-25.87
-29.87
-33.87
-37.87
-41.87


Total(H-XY), Max= -1.96dBi, CirD=7.75
90, Y
0, X
-1.87
-5.87
-9.87
-13.87
-17.87
-21.87
-25.87
-29.87
-33.87
-37.87
-41.87

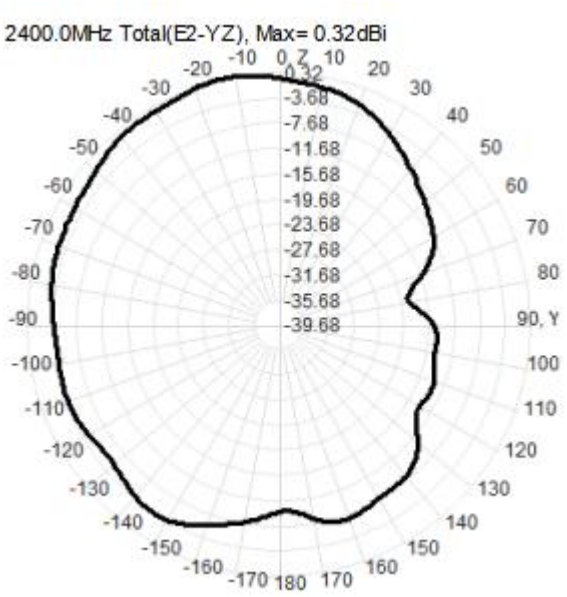

Back View
Z
Y
X
-1.67
-3.51
-5.35
-7.19
-9.04
-10.88
-12.72
-14.56
-16.41
-18.25
-20.09
-21.93
-23.77
-25.62
-27.46
-29.3
-31.14
-32.98
2180.0MHz Total(E1-XZ), Max= -2.88dBi
2180.0MHz Total(E2-YZ), Max= -1.67dBi
Total(H-XY), Max= -3.80dBi, CirD=9.99

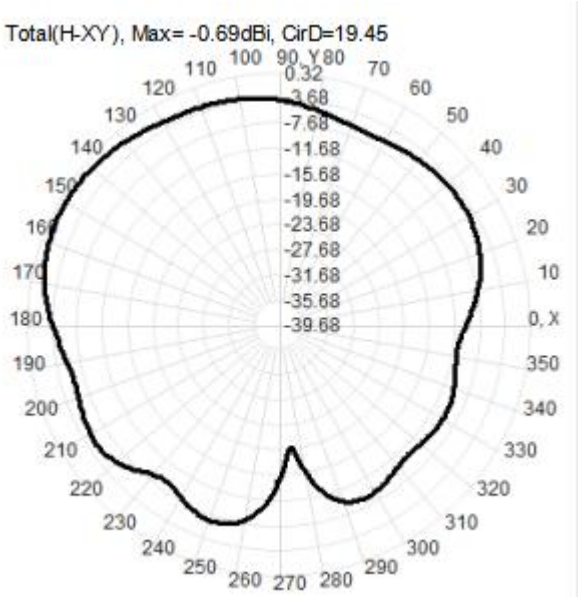

Back View
Z
Y
X
0.12
-1.73
-3.57
-5.41
-7.25
-9.09
-10.94
-12.78
-14.62
-16.46
-18.31
-20.15
-21.99
-23.83
-25.67
-27.52
-29.36
-31.2
2320.0MHz Total(E1-XZ), Max= -1.19dBi
2320.0MHz Total(E2-YZ), Max= -0.76dBi
Total(H-XY), Max= -1.39dBi, CirD=21.64

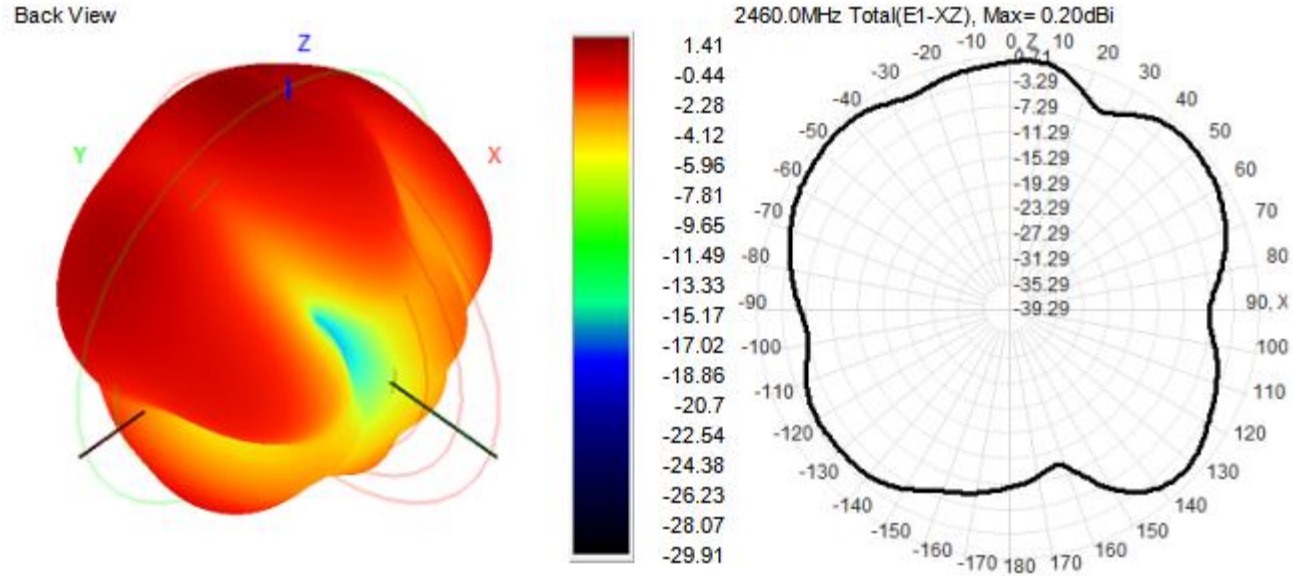

Back View
Z
Y
X


1.29
-0.55
-2.39
-4.23
-6.07
-7.92
-9.76
-11.6
-13.44
-15.29
-17.13
-18.97
-20.81
-22.65
-24.5
-26.34
-28.18
-30.02

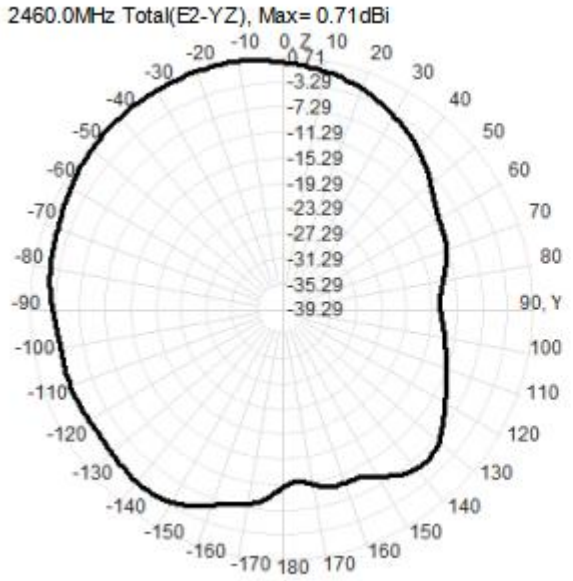
2400.0MHz Total(E1-XZ), Max= -0.32dBi
0.32
-3.68
-7.68
-11.68
-15.68
-19.68
-23.68
-27.68
-31.68
-35.68
-39.68
0, Z
90, X
180
-170
170

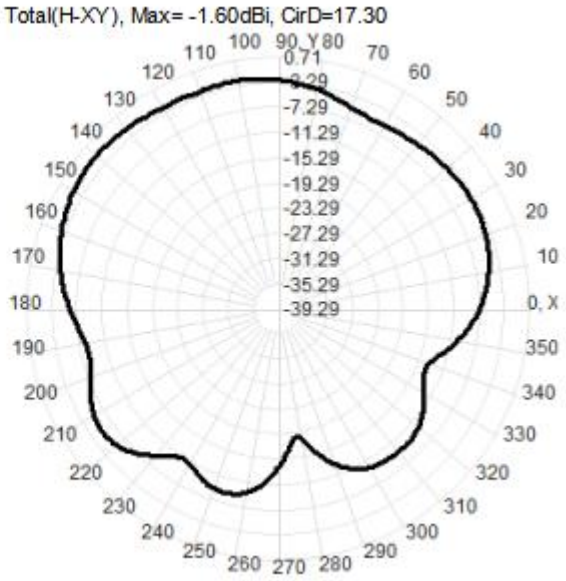

2400.0MHz Total(E2-YZ), Max= 0.32dBi
0.32
-3.68
-7.68
-11.68
-15.68
-19.68
-23.68
-27.68
-31.68
-35.68
-39.68
0, Z
90, Y
180
-170
170

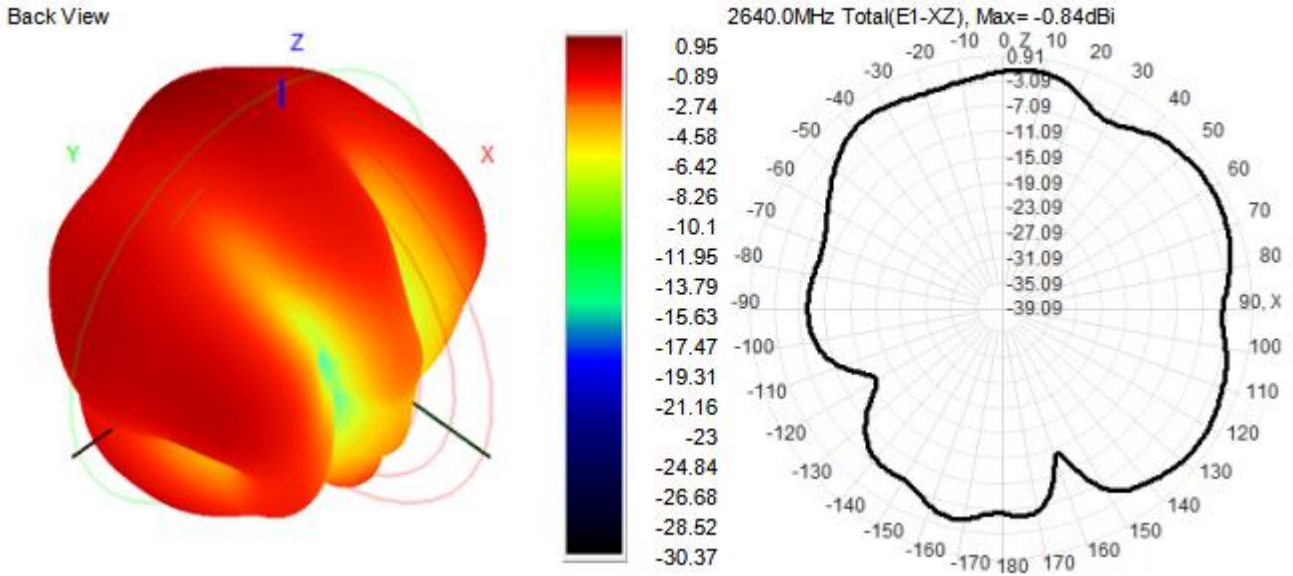

Total(H-XY), Max= -0.69dBi, CirD=19.45
0.32
-3.68
-7.68
-11.68
-15.68
-19.68
-23.68
-27.68
-31.68
-35.68
-39.68
90, Y
0, X
180


Back View
Z
Y
X
1.41
-0.44
-2.28
-4.12
-5.96
-7.81
-9.65
-11.49
-13.33
-15.17
-17.02
-18.86
-20.7
-22.54
-24.38
-26.23
-28.07
-29.91

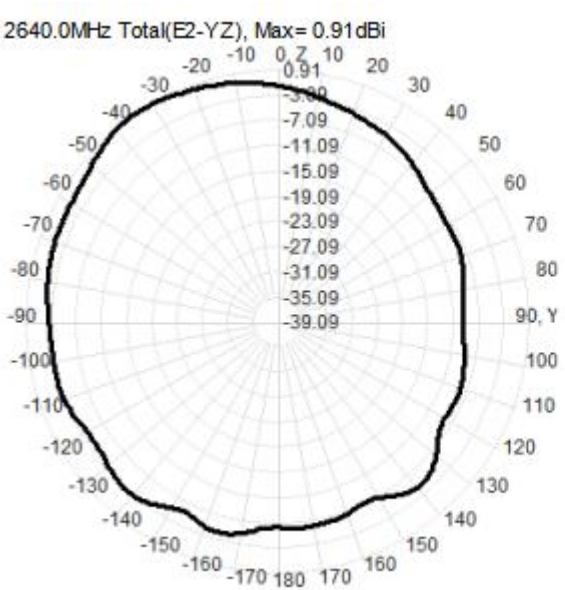
2460.0MHz Total(E1-XZ), Max= 0.20dBi
0.71
-3.29
-7.29
-11.29
-15.29
-19.29
-23.29
-27.29
-31.29
-35.29
-39.29

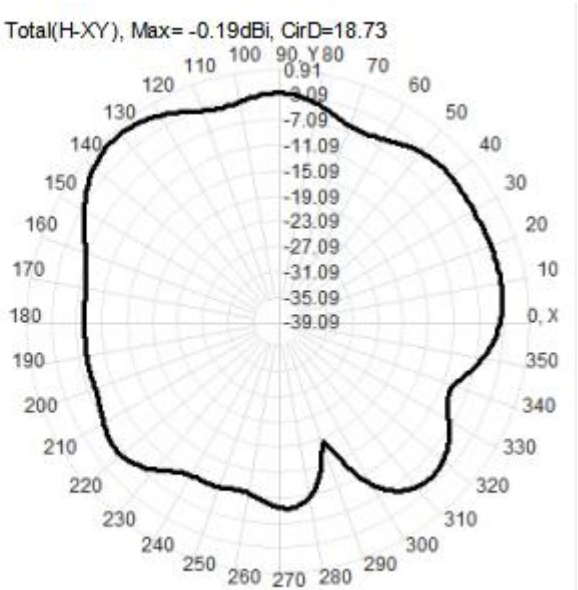

2460.0MHz Total(E2-YZ), Max= 0.71dBi
0.71
-3.29
-7.29
-11.29
-15.29
-19.29
-23.29
-27.29
-31.29
-35.29
-39.29

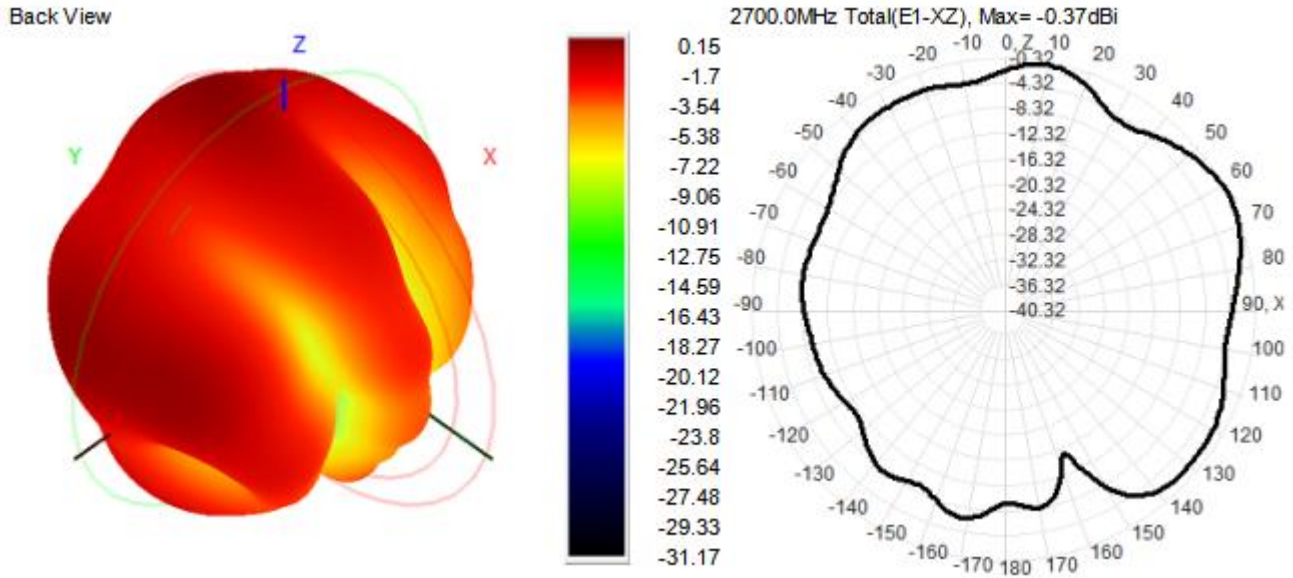

Total(H-XY), Max= -1.60dBi, CirD=17.30
0.71
-7.29
-11.29
-15.29
-19.29
-23.29
-27.29
-31.29
-35.29
-39.29

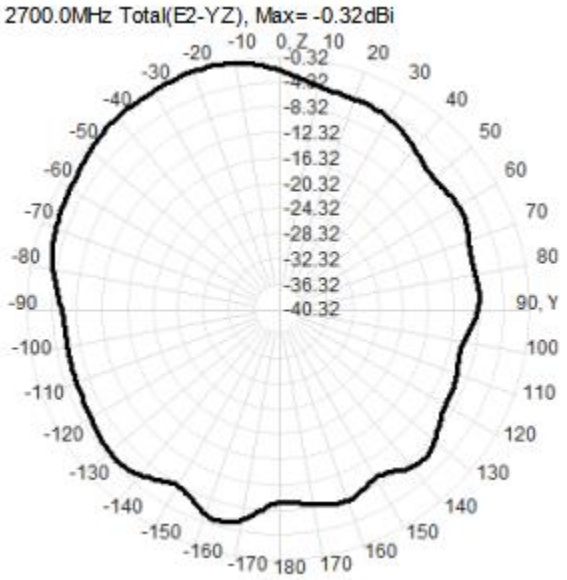

Back View
Z
Y
X
0.95
-0.89
-2.74
-4.58
-6.42
-8.26
-10.1
-11.95
-13.79
-15.63
-17.47
-19.31
-21.16
-23
-24.84
-26.68
-28.52
-30.37

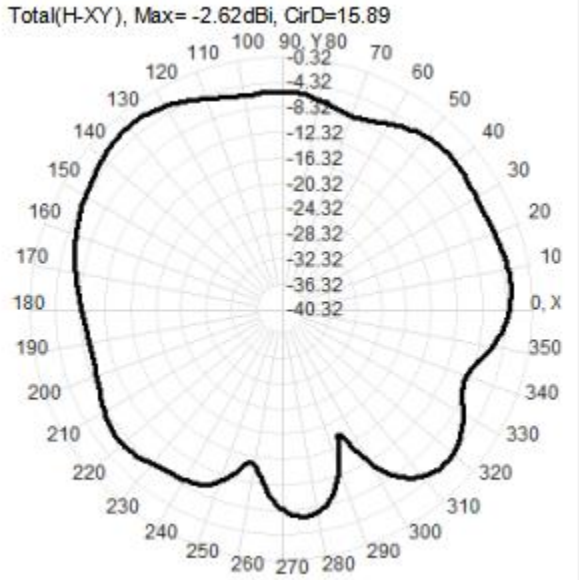
2640.0MHz Total(E1-XZ), Max= -0.84dBi
0.91
-3.09
-7.09
-11.09
-15.09
-19.09
-23.09
-27.09
-31.09
-35.09
-39.09

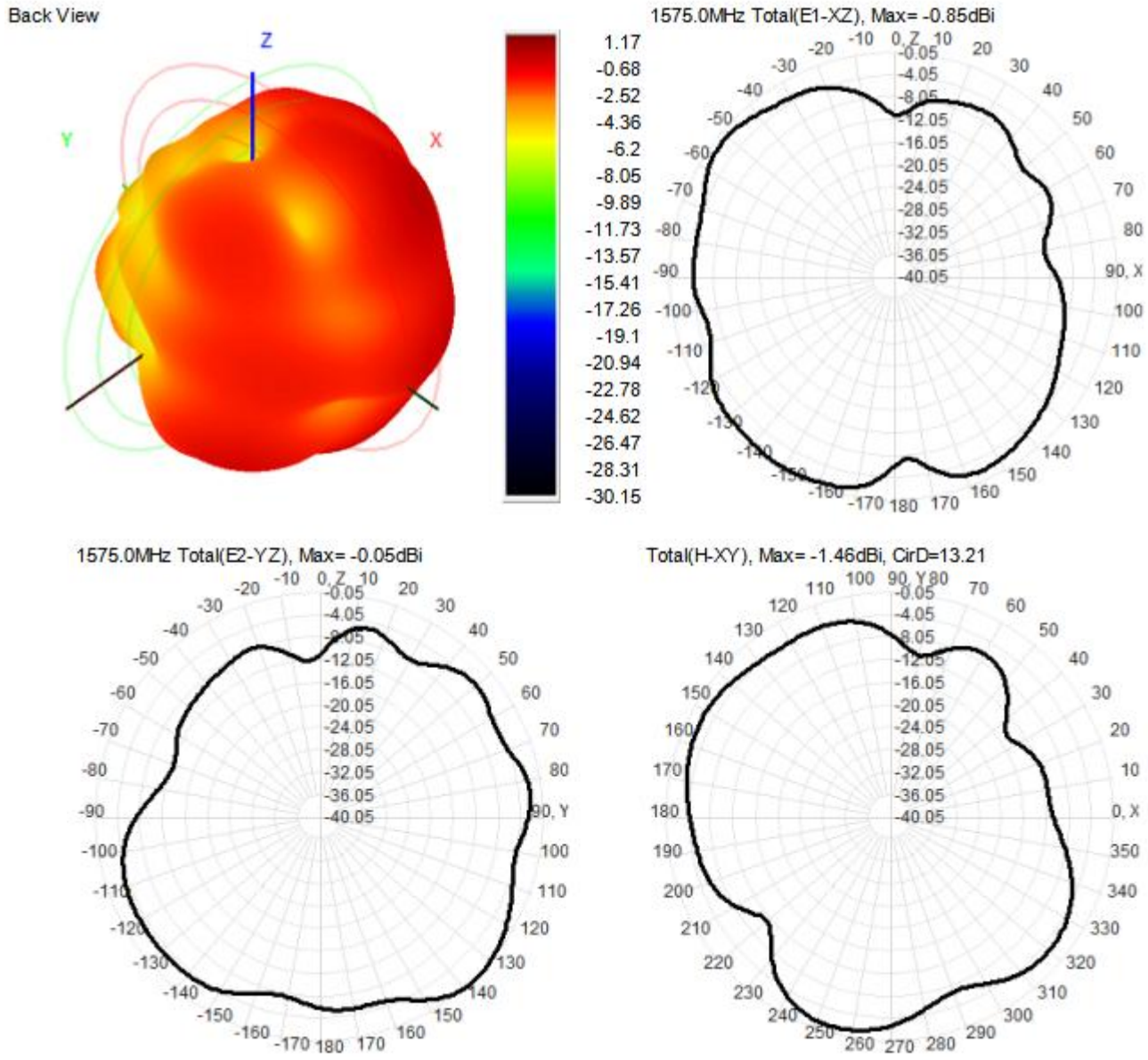

2640.0MHz Total(E2-YZ), Max= 0.91dBi
0.91
-7.09
-11.09
-15.09
-19.09
-23.09
-27.09
-31.09
-35.09
-39.09

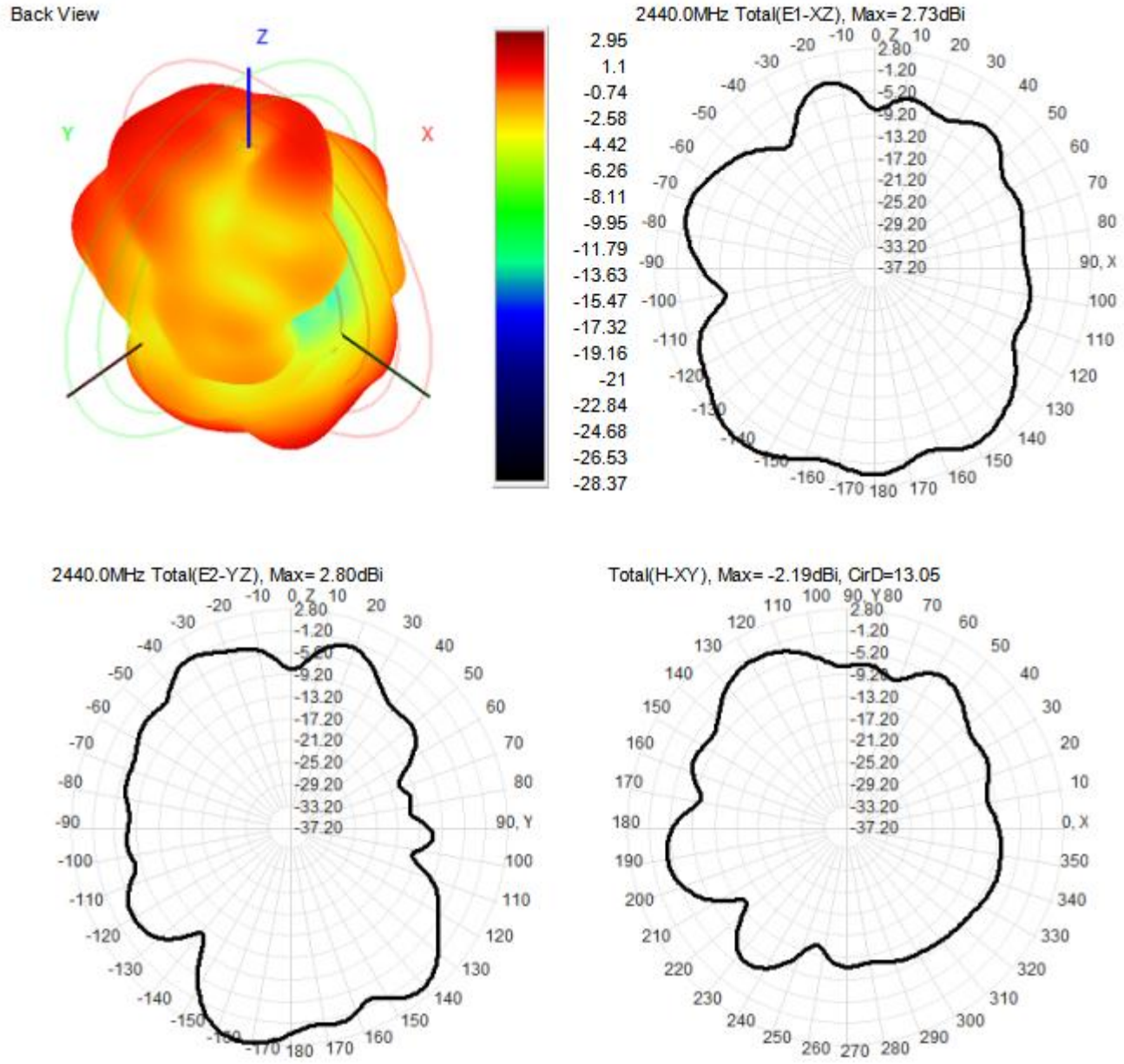

Total(H-XY), Max= -0.19dBi, CirD=18.73
0.91
-7.09
-11.09
-15.09
-19.09
-23.09
-27.09
-31.09
-35.09
-39.09

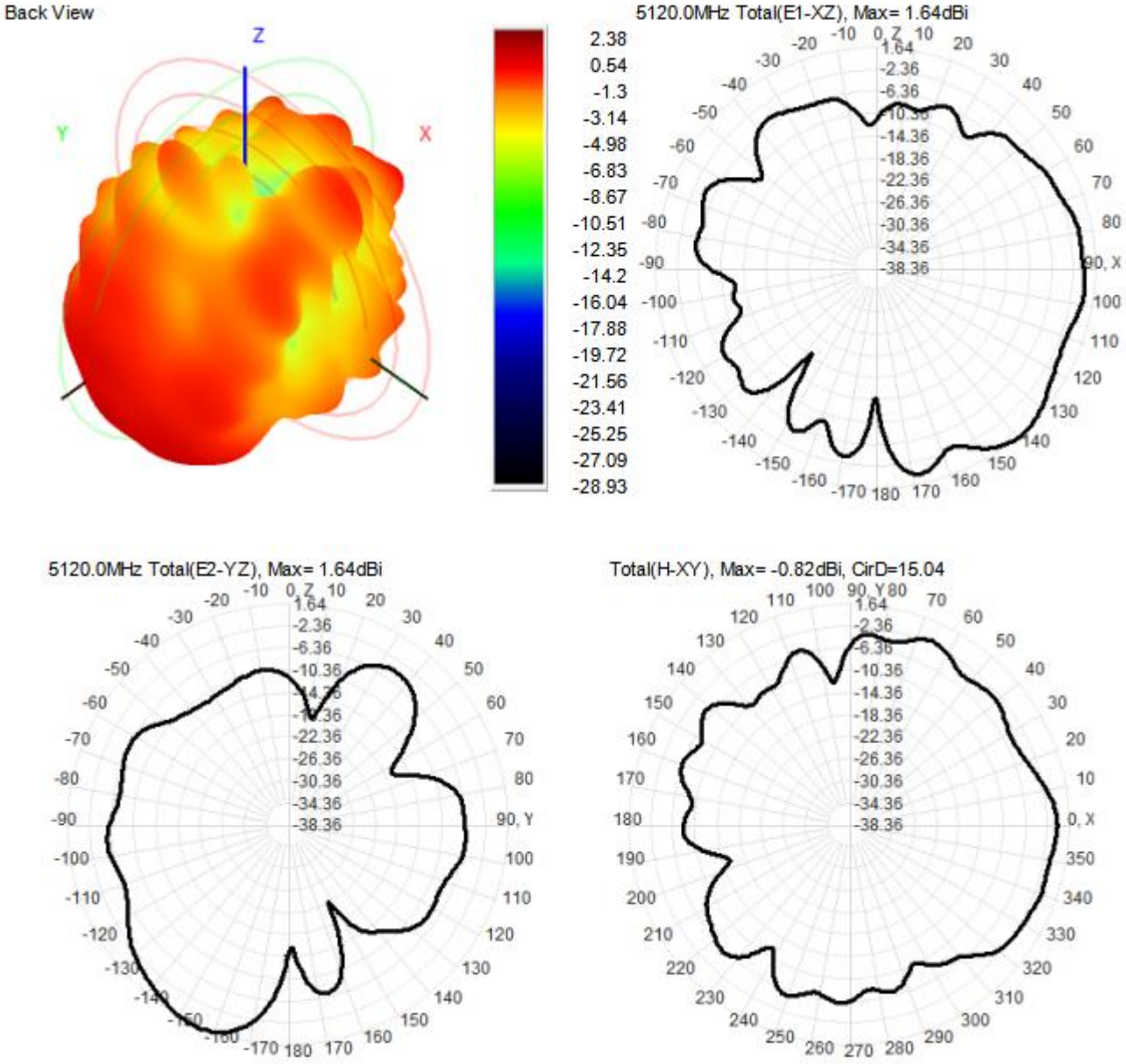

Back View
Z
Y
X
0.15
-1.7
-3.54
-5.38
-7.22
-9.06
-10.91
-12.75
-14.59
-16.43
-18.27
-20.12
-21.96
-23.8
-25.64
-27.48
-29.33
-31.17
2700.0MHz Total(E1-XZ), Max= -0.37dBi
-4.32
-8.32
-12.32
-16.32
-20.32
-24.32
-28.32
-32.32
-36.32
-40.32

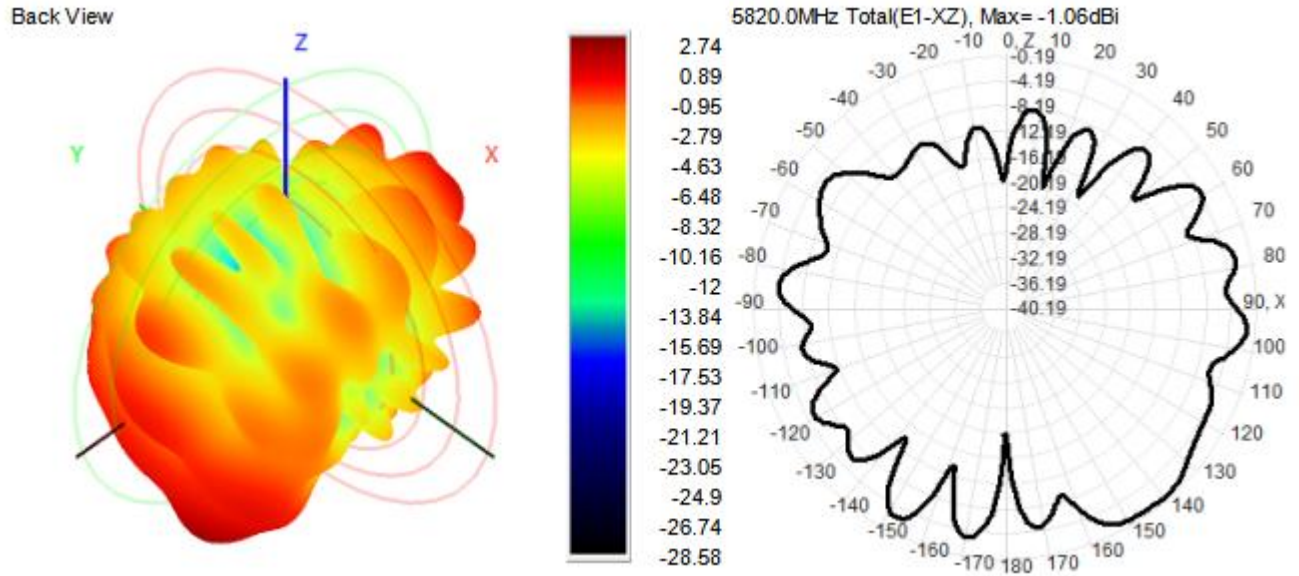

2700.0MHz Total(E2-YZ), Max= -0.32dBi
-8.32
-12.32
-16.32
-20.32
-24.32
-28.32
-32.32
-36.32
-40.32

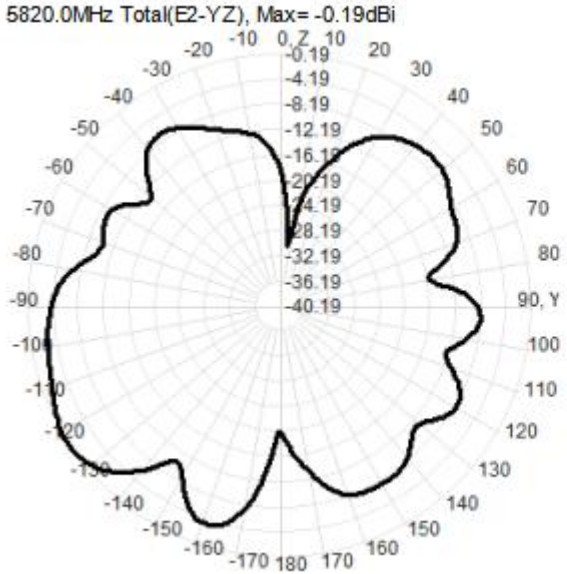

Total(H-XY), Max= -2.62dBi, CirD=15.89
-4.32
-8.32
-12.32
-16.32
-20.32
-24.32
-28.32
-32.32
-36.32
-40.32

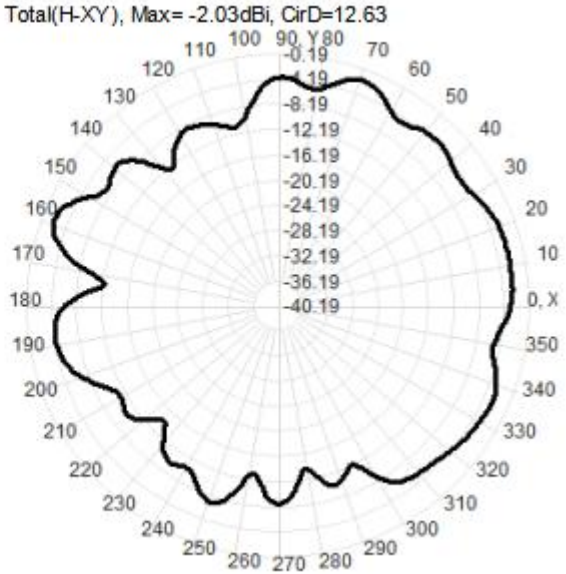

Back View
Z
Y
X
1.17
-0.68
-2.52
-4.36
-6.2
-8.05
-9.89
-11.73
-13.57
-15.41
-17.26
-19.1
-20.94
-22.78
-24.62
-26.47
-28.31
-30.15
1575.0MHz Total(E1-XZ), Max= -0.85dBi
1575.0MHz Total(E2-YZ), Max= -0.05dBi
Total(H-XY), Max= -1.46dBi, CirD=13.21


Back View
Z
Y
X
2.95
1.1
-0.74
-2.58
-4.42
-6.26
-8.11
-9.95
-11.79
-13.63
-15.47
-17.32
-19.16
-21
-22.84
-24.68
-26.53
-28.37
2440.0MHz Total(E1-XZ), Max= 2.73dBi
2440.0MHz Total(E2-YZ), Max= 2.80dBi
Total(H-XY), Max= -2.19dBi, CirD=13.05

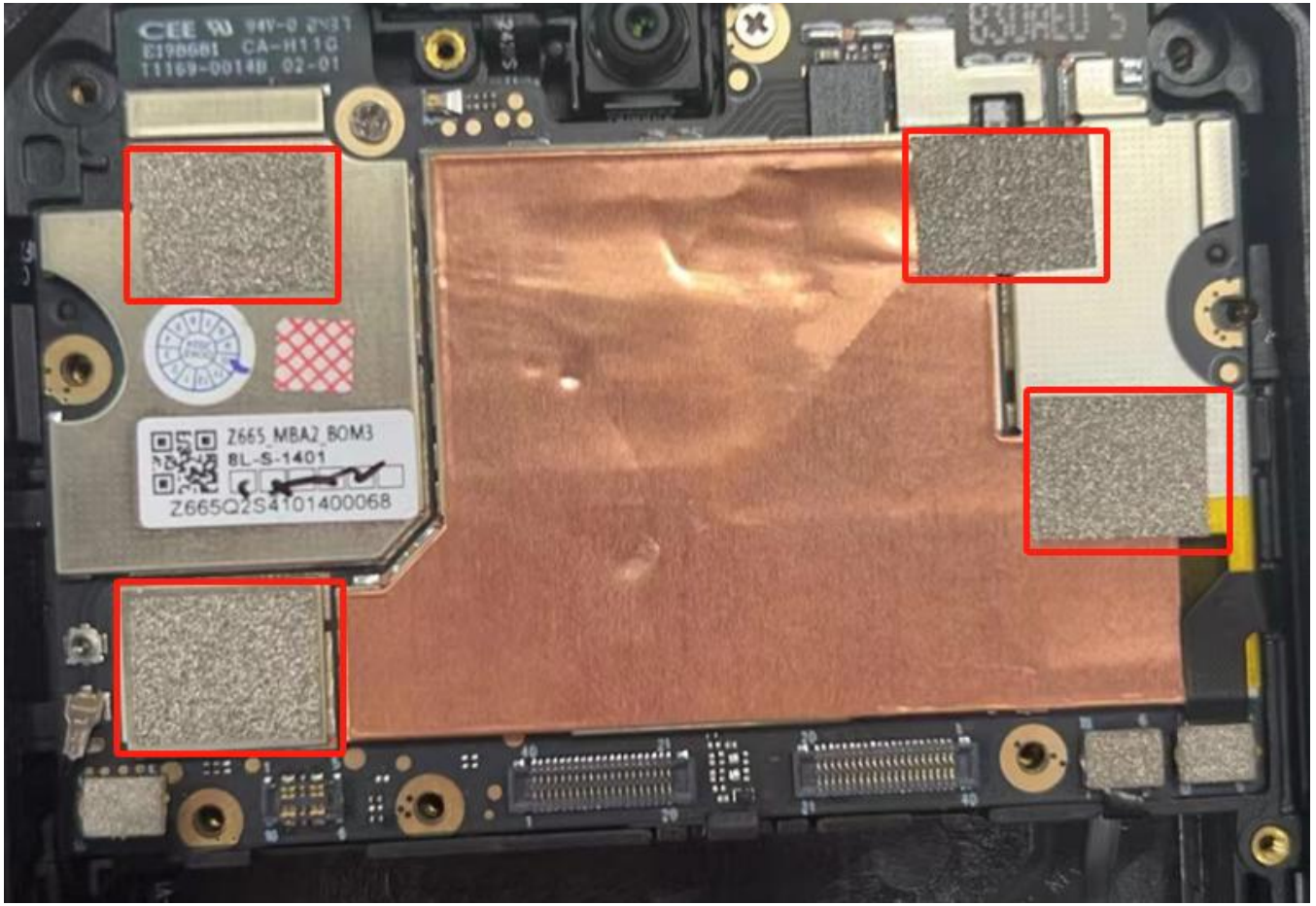

Back View
Z
Y
X
2.38
0.54
-1.3
-3.14
-4.98
-6.83
-8.67
-10.51
-12.35
-14.2
-16.04
-17.88
-19.72
-21.56
-23.41
-25.25
-27.09
-28.93
5120.0MHz Total(E1-XZ), Max= 1.64dBi
1.64
-2.36
-6.36
-10.36
-14.36
-18.36
-22.36
-26.36
-30.36
-34.36
-38.36
90, X
5120.0MHz Total(E2-YZ), Max= 1.64dBi
90, Y
Total(H-XY), Max= -0.82dBi, CirD=15.04
0, X


Back View
Z
Y
X
2.74
0.89
-0.95
-2.79
-4.63
-6.48
-8.32
-10.16
-12
-13.84
-15.69
-17.53
-19.37
-21.21
-23.05
-24.9
-26.74
-28.58
5820.0MHz Total(E1-XZ), Max= -1.06dBi
0, Z
90, X
180
170


5820.0MHz Total(E2-YZ), Max= -0.19dBi
0, Z
90, Y
180
170


Total(H-XY), Max= -2.03dBi, CirD=12.63
90, Y
0, X
180
270

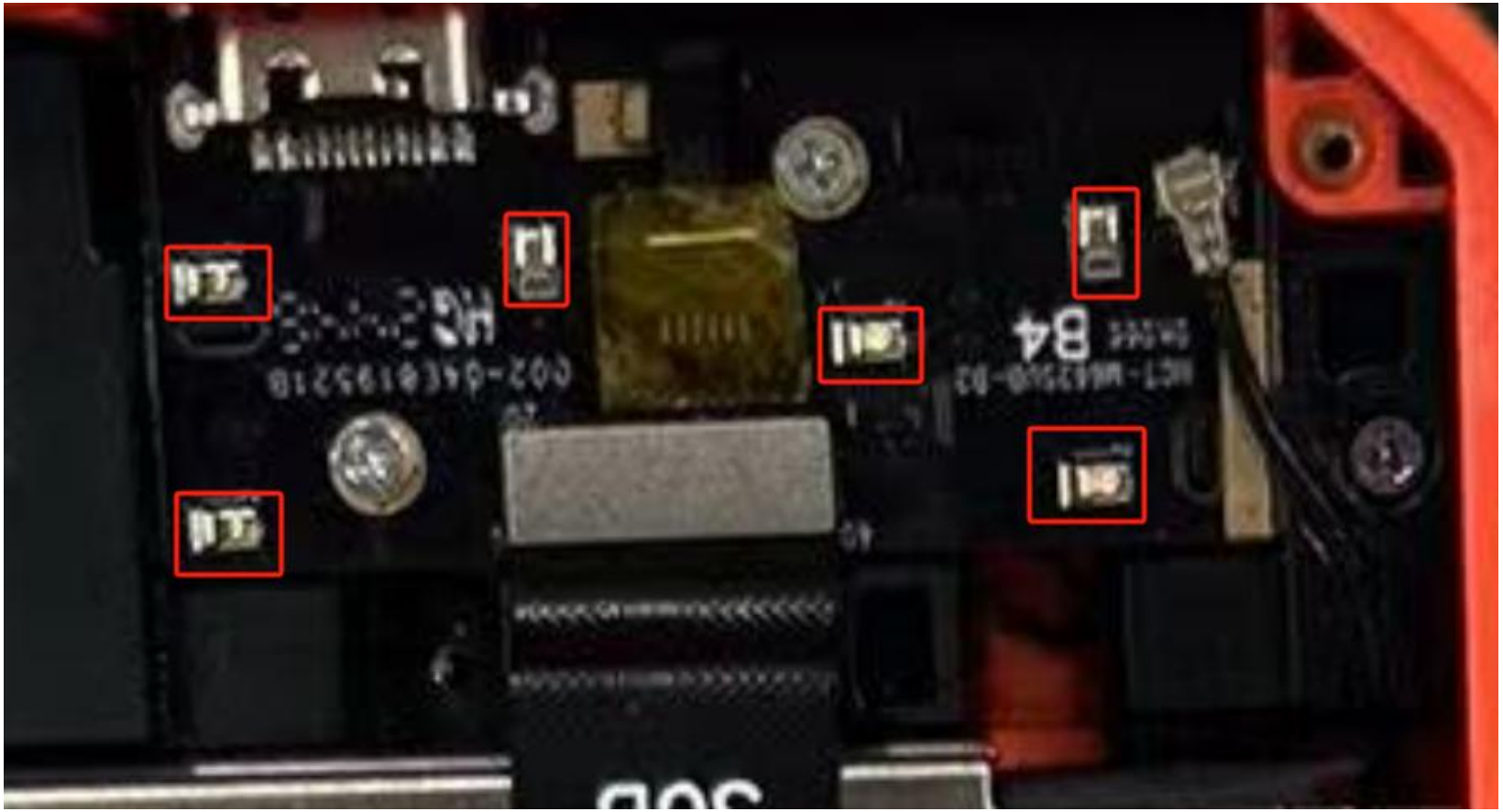
As shown in the red box in the figure, the back of the motherboard shielding cover is covered with a conductive sponge of sufficient height to fully ground the zinc alloy frame.



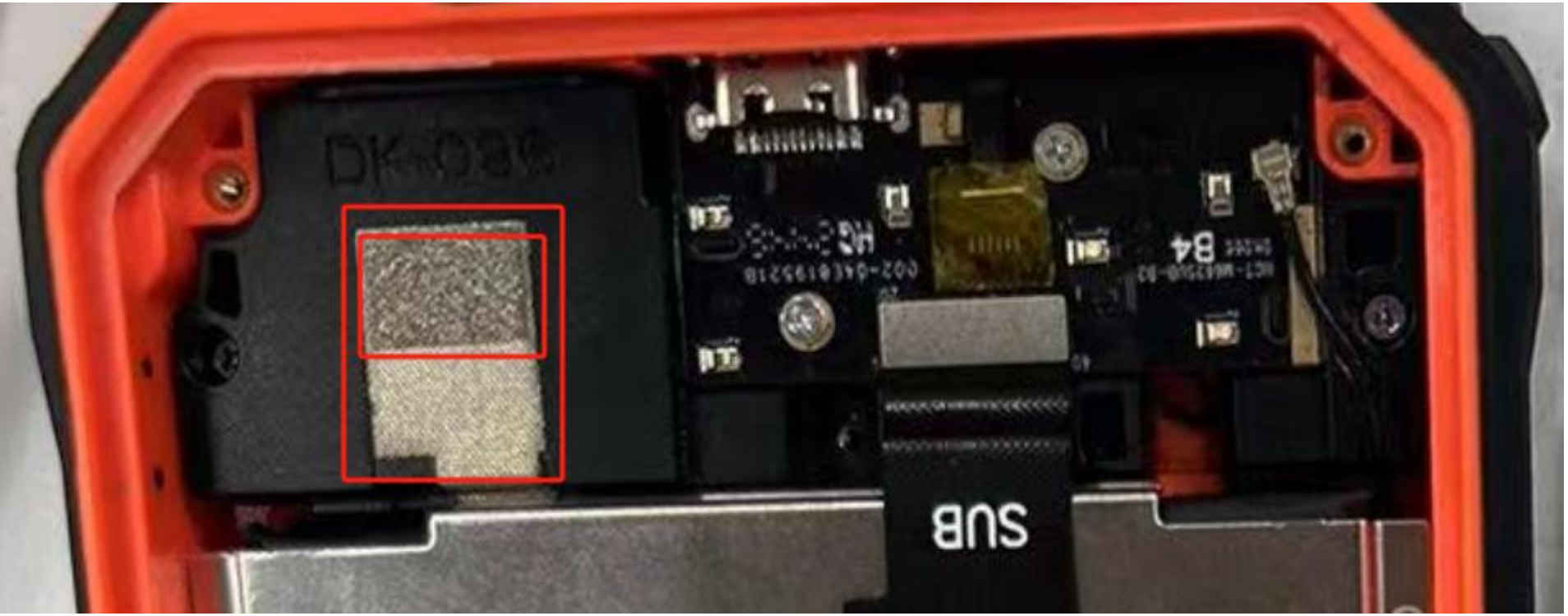
environmental treatment

As shown in the red box in the figure: the bottom of the screen is grounded with a large conductive cloth to shield interference from screen cables, ICs, etc. Add large strip conductive sponge on both sides of the screen and fully ground it to the metal frame.

As shown in the red box in the figure, the small board is grounded to the metal frame through a spring clip. Add laser engraving at the corresponding position between the middle frame zinc alloy and the small plate spring to ensure that the small plate and the middle frame zinc alloy are fully grounded.



As shown in the figure: Pull out a long conductive cloth from the horn magnet in the red box and stick it back to the groove of the bracket. Then, place a 1.5mm high conductive sponge on top of the conductive cloth and ground it to the metal frame.



As shown in the figure, a conductive sponge is attached to the metal part on the back of the small board wiring corresponding to the zinc alloy of the middle frame, which is the grounding point between the zinc alloy of the middle frame and the wiring.