

ANWEI commnuication Equipment Co.,Ltd

APPROVAL SHEET

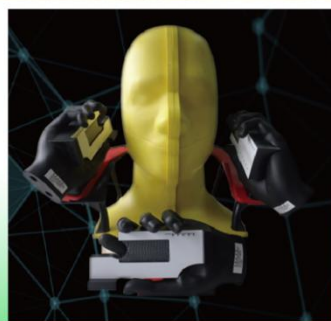
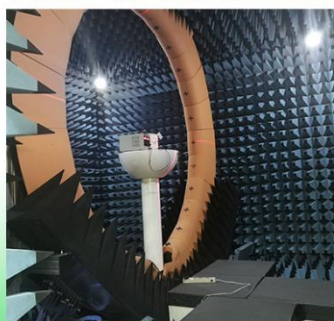
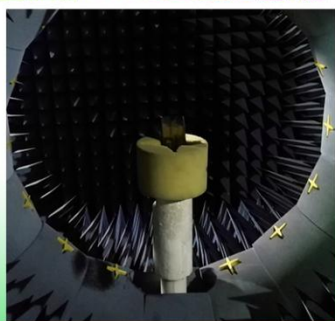
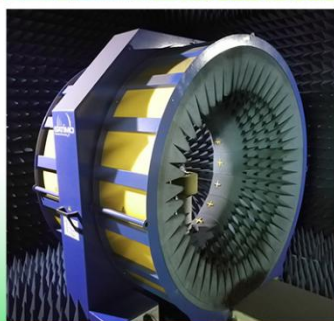
Customer	Youmi	Specs	A15 Pro 4G
Part Number	A15 pro 4G-MAIN-AW-V0.3 A15 pro 4G-DIV-AW-V0.3 A15 pro 4G-GWB-AW-V0.3 A15 pro 4G-5GWIFI-AW-V0.3 A15ULTRA-AW-V1.0	Frequency Band	2G:GSM850/900/1800/1900/BCO/BC1 3G:WCDMA-B1/2/4/5/6/8/19 4G:LTE-B1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28A/28B/34/38/39/40/41/66/71
Color	Black	Edition	REV:A0
Salesperson	Mr.Xie	Design	ZHONG ZHI HUI
Structure	QIN YUN LIN	Confirm	
Date	2023/11/21	Signing Date	

Customer confirmation:

ANT Manufacturers: ANWEI commnuication Equipment Co.,Ltd

Address:2nd Floor, East Block, Building 5, Yifenghua Innovation Industrial Park, Huaning Road, Dalang Street, Longhua District, Shenzhen City, Guangdong Province

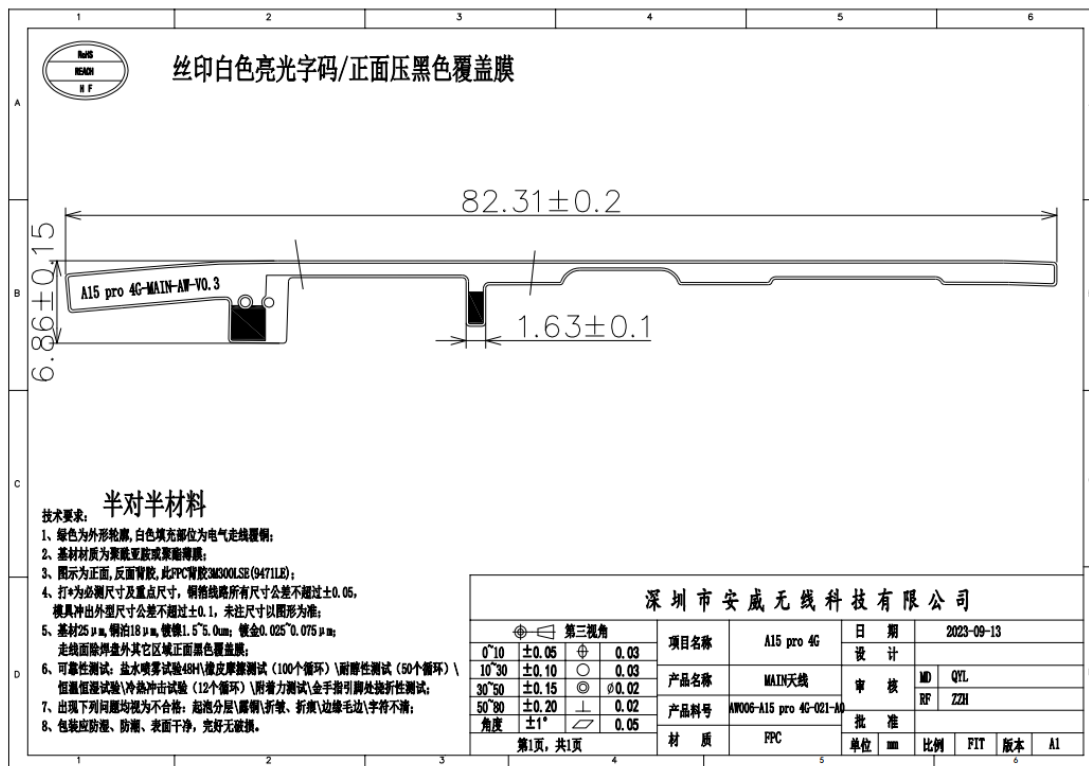
Project development environment



安威无线一直都是您值得信赖且优秀的合作伙伴，我们为您提供全方位一站式的的产品以及技术服务！

“质量第一，服务至上”是安威一直以来的发展宗旨

MAIN ANT



(Working frequency band): 600MHZ~960MHZ

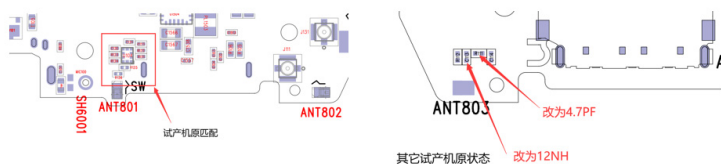
2G:GSM850/900/BCO

3G:WCDMA-B5/6/8/19

4G:LTE-B5/8/12/13/17/18/19/20/26/28A/28B/71

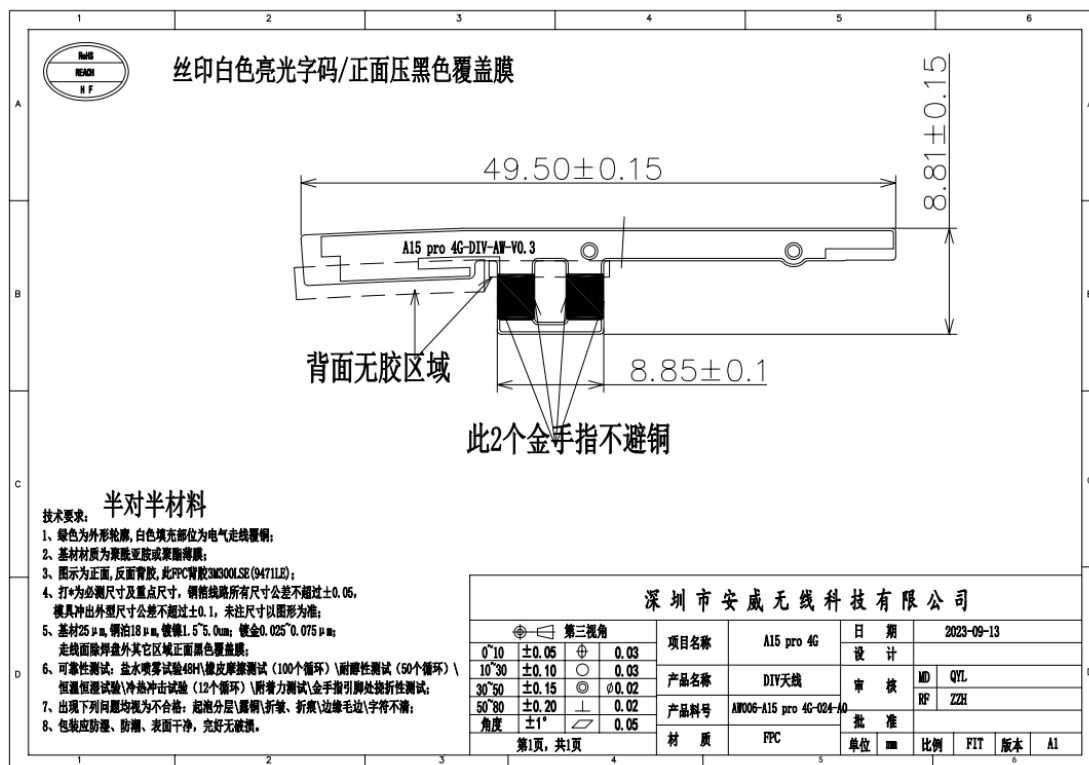
(Matcheing network):

ANTO小板匹配电路



Element	Value
E1 (R112)	0 Ω
E2 (C113)	12NH
E3 (R111)	4.7PF
E4 (C114)	N/A

DIV ANT



(Working frequency band):1710~2690MHZ

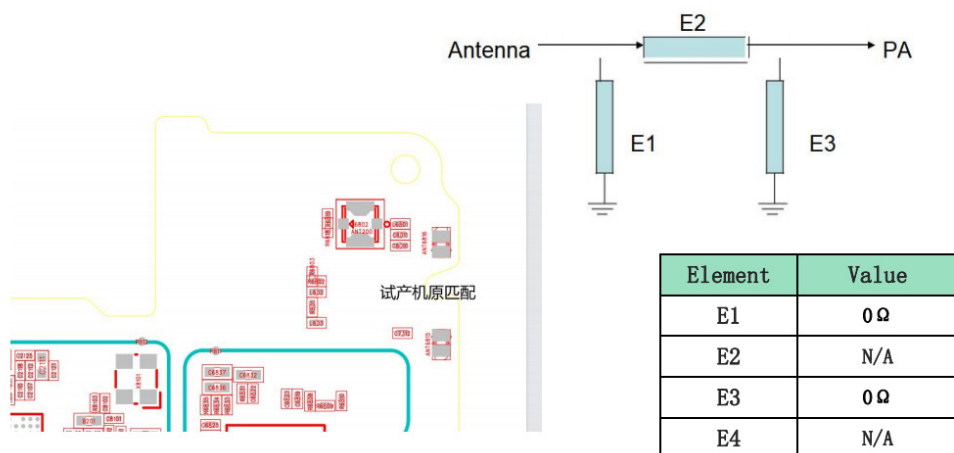
2G:GSM1800/1900/BC1

3G:WCDMA-B1/2/4

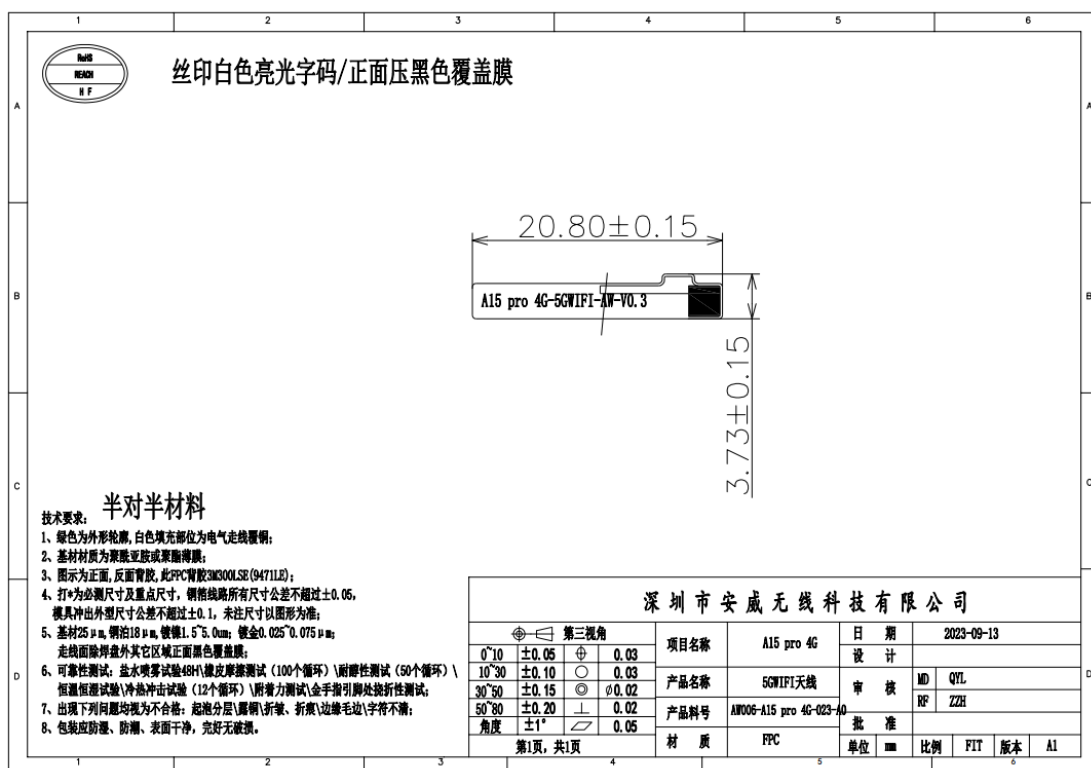
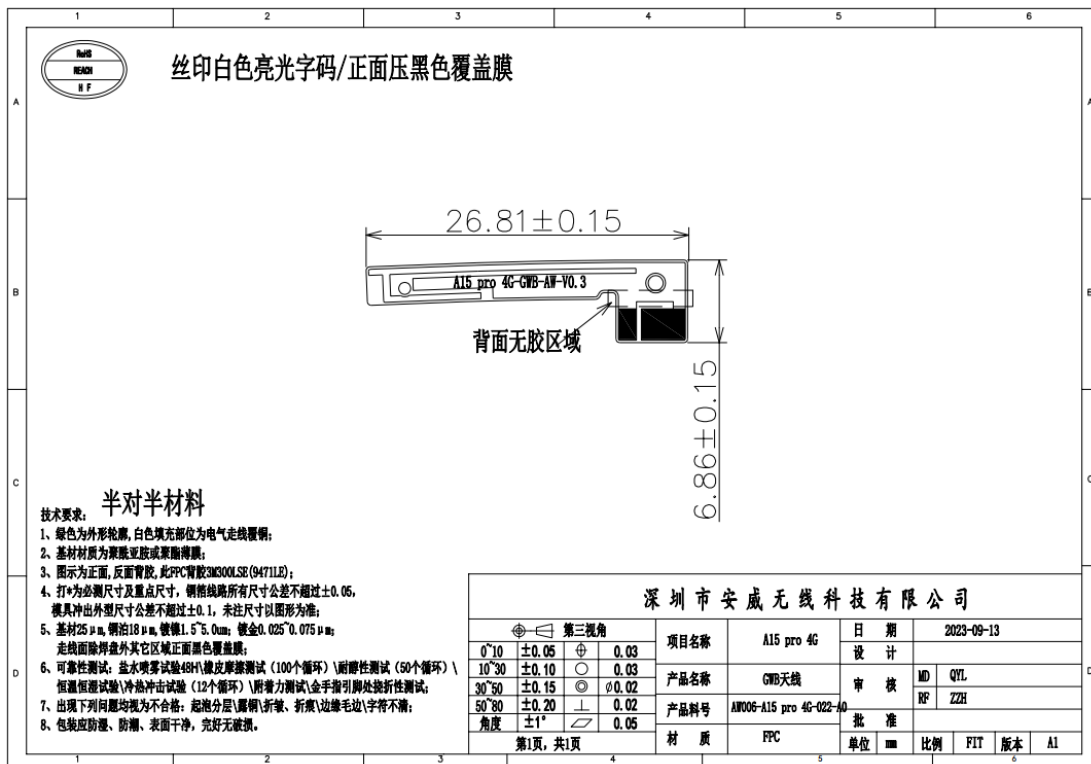
4G:LTE-B1/2/3/4/7/25/34/38/39/40/4166

(Matcheing network):

分集天线匹配电路



(GPS L1 antenna) + (2.4G/5G WIFI/BT antenna)

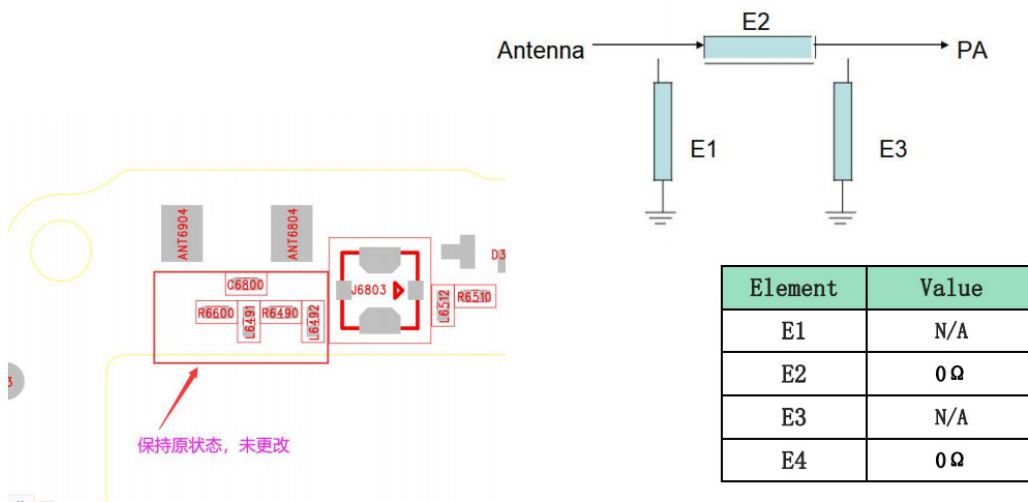


(Working frequency band of GPS antenna) : 1575.42MHZ

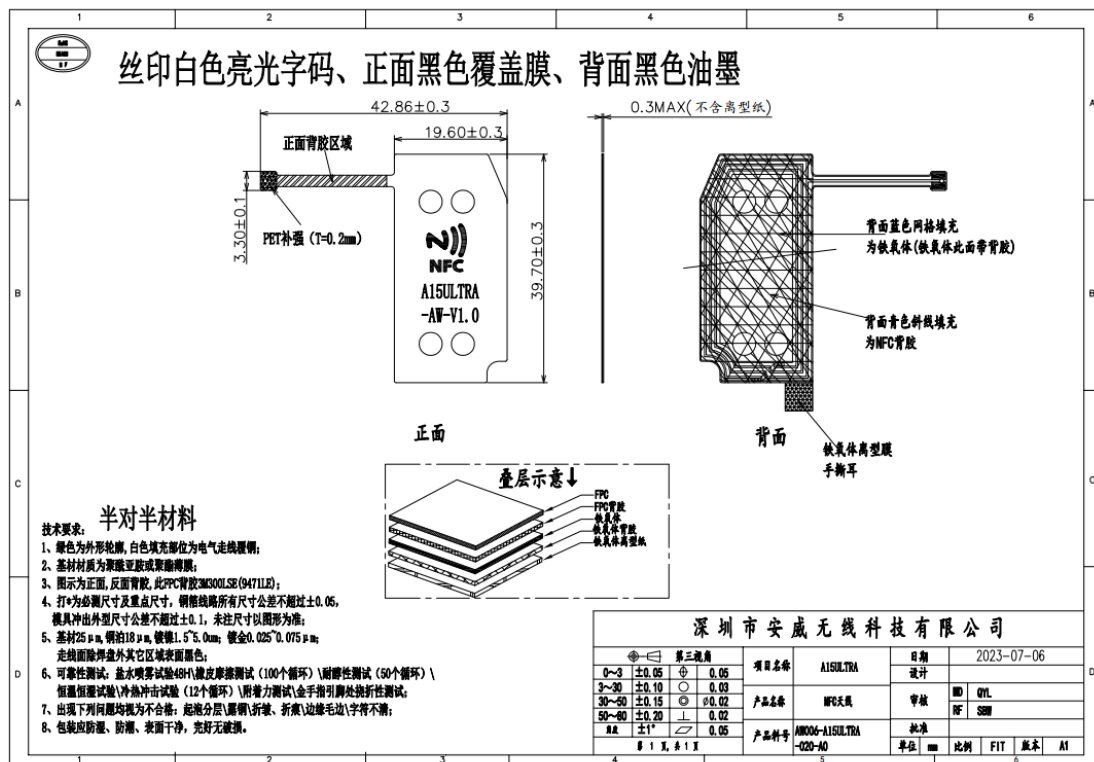
(Working frequency band of 5GWIFI antenna) : 2400~2500,5150MHZ~5850MHZ

(Matching network)

GPS/WIFI/BT天线匹配电路



(NFC antenna)



ANWEI ANT TRP&TIS parameter Summary of A15 Pro 4G

BAND	Channel	TRP (dBm)	TIS (dBm)
FDD B1	L	14.53	
	M	15.26	
	H	16.59	-89.89
FDD B2	L	14.04	
	M	14.61	
	H	15.21	-89.62
FDD B3	L	16.86	
	M	17.06	
	H	16.17	-90.37
FDD B4	L	15.83	
	M	15.61	
	H	15.72	-92.71
FDD B5	L	16.42	
	M	17.28	
	H	17.53	-90.35
FDD B7	L	16.98	
	M	16.73	
	H	15.80	-90.67
FDD B8	L	15.49	
	M	16.25	
	H	15.62	-90.21
FDD B12	L	14.81	
	M	15.45	
	H	15.74	-91.94
FDD B13	L		
	M	14.27	-91.86
	H		

FDD B17	L	16.27	
	M	16.34	
	H	16.43	-90.74
FDD B18	L	14.76	
	M	16.29	
	H	16.60	-89.00
FDD B19	L	15.97	
	M	16.97	
	H	17.14	-90.21
FDD B20	L	14.59	
	M	15.38	
	H	15.11	-90.80
FDD B25	L	14.46	
	M	15.16	
	H	15.80	-90.03
FDD B26	L	14.74	
	M	16.10	
	H	16.72	-89.23
FDD B28A	L	16.11	
	M	16.59	
	H	16.53	-91.25
FDD B28B	L	16.92	
	M	16.80	
	H	17.07	-88.39
FDD B66	L	14.63	
	M	14.04	
	H	14.00	-92.25

FDD B71	L	13.28	
	M	13.46	
	H	13.65	-91.35
TDD B34	L	17.16	
	M	17.36	
	H	17.04	-90.64
TDD B38	L	16.22	
	M	16.20	
	H	15.81	-88.21
TDD B39	L	14.57	
	M	14.41	
	H	14.78	-89.08
TDD B40	L	16.09	
	M	16.89	
	H	17.06	-89.83
TDD B41			
	M	15.53	-89.07
	H		
WCDMA-B1	L	13.22	
	M	16.44	
	H	16.49	-100.71
WCDMA-B2	L	14.65	
	M	14.64	
	H	15.15	-102.70
WCDMA-B4	L	16.23	
	M	16.26	
	H	16.38	-102.93
WCDMA-B5	L	15.96	
	M	16.48	
	H	16.95	-103.65

WCDMA-B6	L	16.19	
	M	16.40	
	H	16.37	-102.78
WCDMA-B8	L	16.99	
	M	17.62	
	H	16.88	-102.88
WCDMA-B19	L	16.43	
	M	16.58	
	H	16.95	-101.36
BCO	L	16.06	
	M	16.17	
	H	16.20	-99.41
BC1	L	9.83	
	M	11.99	
	H	13.21	-99.13

	Channel	TRP (dBm)	TIS (dBm)
GSM850	L	26.09	
	M	26.12	
	H	25.70	-102.02
GSM900	L	25.80	
	M	25.76	
	H	25.96	-100.73
DCS1800	L	23.87	
	M	22.72	
	H	23.94	-101.08
PCS1900	L	22.16	
	M	22.34	
	H	22.09	-102.59

2.4G WIFI	L	12.27	-81.26
	M	11.32	-80.24
	H	11.72	-81.16
B mode 11M			
5 G WIFI	L	8.64	-71.41
	M	7.06	-70.57
	H	8.42	-71.27
A mode 54M			

(GPS Test)

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SVID	Fq	CNR	Elevation	Azimuth	SVID	Fq	CNR	Elevation	Azimuth
	3	L1	32.9	26.00 261.00		5	L1	0.0	24.00 255.00
	4	L1	30.2	31.00 321.00		6	L1	36.3	61.00 10.00
	16	L1	41.5	67.00 306.00		7	L1	26.0	67.00 205.00
	26	L1	30.4	56.00 9.00		8	L1	0.0	6.00 197.00
	27	L1	26.2	44.00 175.00		9	L1	34.1	52.00 344.00
	28	L1	41.5	34.00 72.00		10	L1	31.7	52.00 213.00
	29	L1	0.0	5.00 38.00		16	L1	43.1	62.00 26.00
	31	L1	30.3	47.00 43.00		20	L1	37.6	52.00 256.00
	32	L1	27.0	0.00 0.00		23	L1	20.0	11.00 66.00
	65	L1	38.5	56.00 207.00		27	L1	25.1	28.00 153.00
	66	L1	22.5	48.00 310.00		28	L1	20.0	32.00 97.00
	75	L1	31.4	21.00 34.00		30	L1	0.0	1.00 194.00
	76	L1	19.9	41.00 330.00		37	L1	27.1	46.00 21.00
	84	L1	27.1	0.00 0.00		4	L1	37.9	85.00 214.00
	85	L1	20.3	18.00 74.00		24	L1	17.5	20.00 247.00
						26	L1	0.0	3.00 91.00

G:GPS R:GLN B:BD E:GAL Q:QZS L:LTS I:IRNSS S:SBAS

Average CNR

G:33.6/+/+/+ R:30.6/+/+/+ B:31.5/+/+/+ E:31.0/+/+/+ Q:41.0/+/+/+ L:+/+/+ I:+/+/+ S:26.0/+/+/+

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SVID	Fq	CNR	Elevation	Azimuth
	32	L1	0.0	19.00 146.00
	65	L1	24.2	55.00 206.00
	66	L1	40.6	48.00 309.00
	75	L1	32.0	20.00 36.00
	76	L1	29.5	41.00 332.00
	77	L1	27.7	20.00 281.00
	85	L1	29.7	19.00 71.00
	86	L1	0.0	19.00 121.00
	1	L1	0.0	46.00 125.00
	2	L1	0.0	47.00 236.00
	3	L1	27.7	62.00 189.00
	4	L1	0.0	32.00 112.00
	5	L1	0.0	24.00 255.00
	6	L1	37.9	61.00 10.00
	7	L1	0.0	67.00 205.00
	8	L1	0.0	6.00 197.00

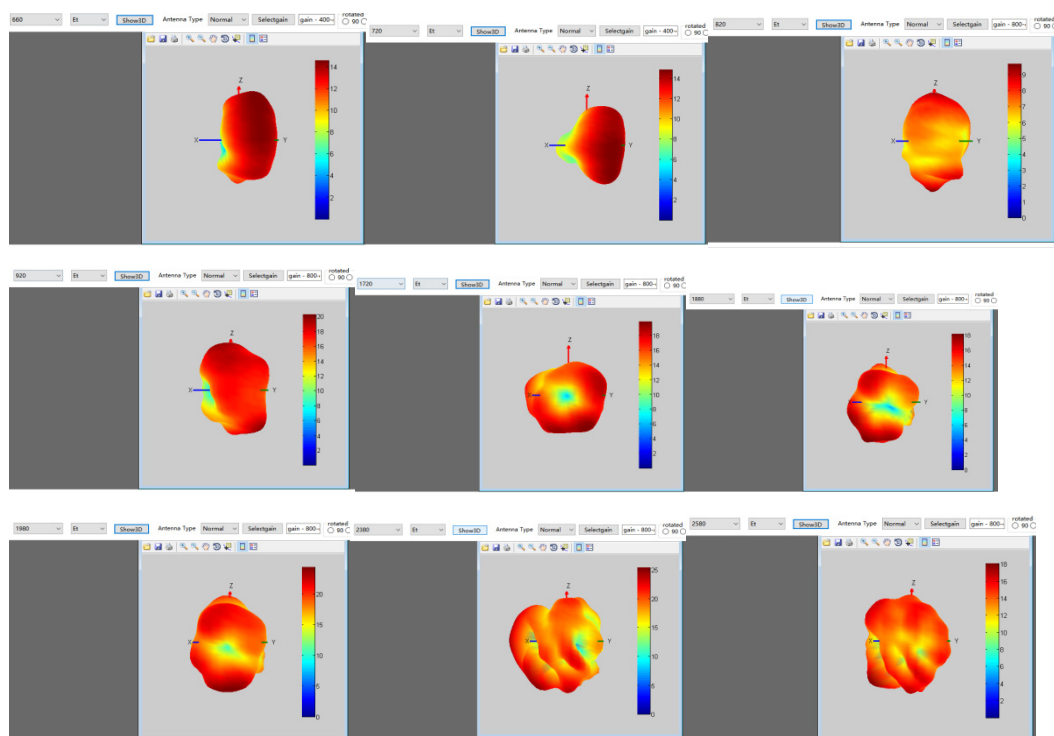
(Efficiency of GPS antenna): 30.41%

天线增益(Antenna gain)

Standard	Band	Frequency	Gain(dbi)
TDD_LTE	TDD_B34	1980	1.76
TDD_LTE	TDD_B38	2580	-0.54
TDD_LTE	TDD_B39	1880	0.76
TDD_LTE	TDD_B40	2380	-2.41
TDD_LTE	TDD_B41	2580	-0.54
FDD_LTE	FDD_B1	1980	1.76
FDD_LTE	FDD_B2	1880	0.76
FDD_LTE	FDD_B3	1720	-0.13
FDD_LTE	FDD_B4	1720	-0.13
FDD_LTE	FDD_B5	820	-4.65
FDD_LTE	FDD_B7	2580	-0.54
FDD_LTE	FDD_B8	920	-2.07
FDD_LTE	FDD_B12	720	-6.53
FDD_LTE	FDD_B13	780	-4.97
FDD_LTE	FDD_B17	720	-6.53
FDD_LTE	FDD_B18	820	-4.65
FDD_LTE	FDD_B19	820	-4.65
FDD_LTE	FDD_B20	820	-4.65
FDD_LTE	FDD_B25	1880	0.76
FDD_LTE	FDD_B26	820	-4.65
FDD_LTE	FDD_B28	720	-6.53
FDD_LTE	FDD_B4	1720	-0.13
FDD_LTE	FDD_B71	660	-5.41
WCDMA	WCDMA_B1	1980	1.76
WCDMA	WCDMA_B2	1880	0.76
WCDMA	WCDMA_B4	1720	-0.13
WCDMA	WCDMA_B5	820	-4.65
WCDMA	WCDMA_B6	820	-4.65
WCDMA	WCDMA_B8	920	-2.07
WCDMA	WCDMA_B19	820	-4.65

GSM	GSM850	820	-4.65
GSM	GSM900	920	-2.07
GSM	DCS1800	1720	-0.13
GSM	PCS1900	1880	0.76
BC0	850	820	-4.65
BC1	1900	1880	0.76
2.4GWIFI		2450	0.81
5GWIFI		5800	-1.74
GPS	L1	1575	0.23
BT		2450	0.81
NFC		13.56	1.5
FM		108	0.8

MIMO antenna apple map



(MIMO antenna) PolarGraphs/EtotalGraphs

