

# 深圳市安威无线科技有限公司

ANWEI communication Equipment Co.,Ltd

## 规格书

APPROVAL SHEET

客户 Customer	Youmi	规格型号 Specs	F3-5G
安威料号 Part Number		频段 Frequency Band	GSM:2/3/5/8/W1/2/4/5/6/8/19/TD34/39/BC0/BC1/FDD:1/2/ 3/4/5/7/8/12/13/17/18/19/20/25/26/28A/28B/66/TDD:34/38 /39/40/41/SA:1/2/3/5/7/8/20/25/28/38/40/41/66/77/78
颜色 Color	黑油(Black Oil)	版本 Edition	REV:A
销售 Salesperson	Mr.Xie	设计 Design	XU LONG
结构 Structure	QIN YUN LIN	确认 Confirm	
日期 Date	2022/08/25	签字日期 Signing Date	

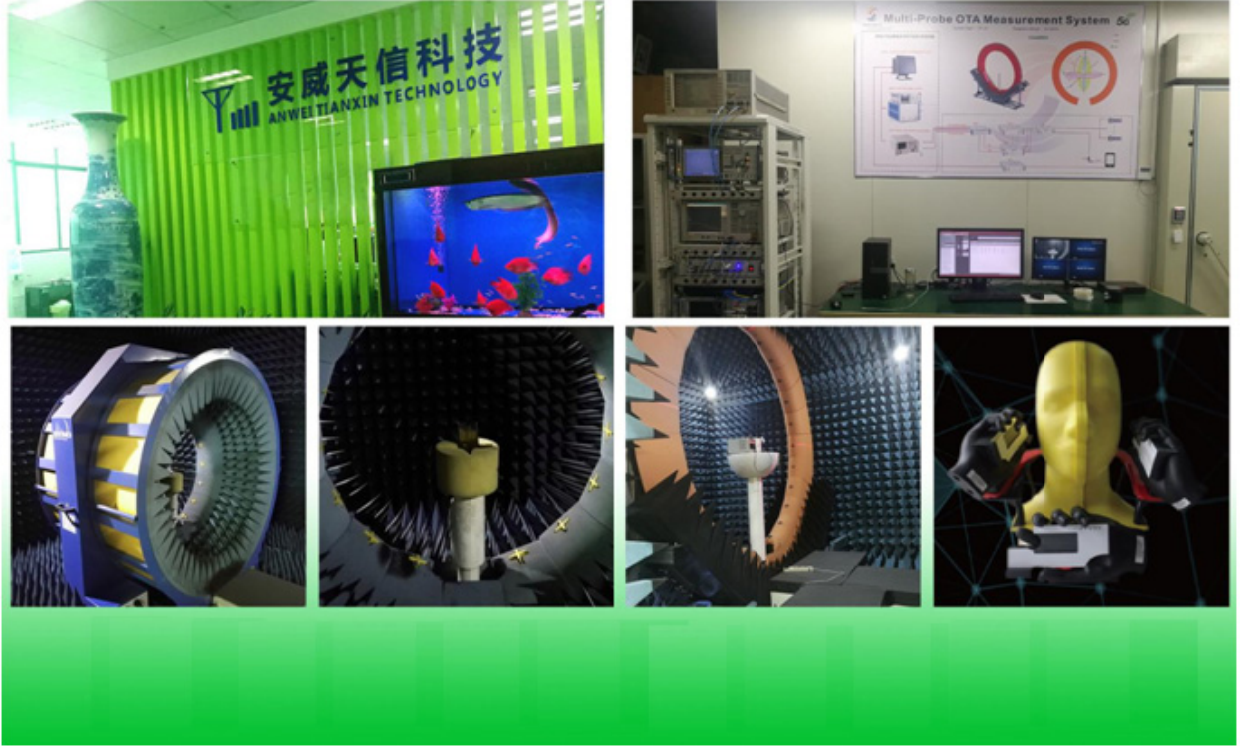
客户确认 Customer confirmation:

携手共进 共创未来

Join hands to create the future

# 项目开发环境

## Project development environment



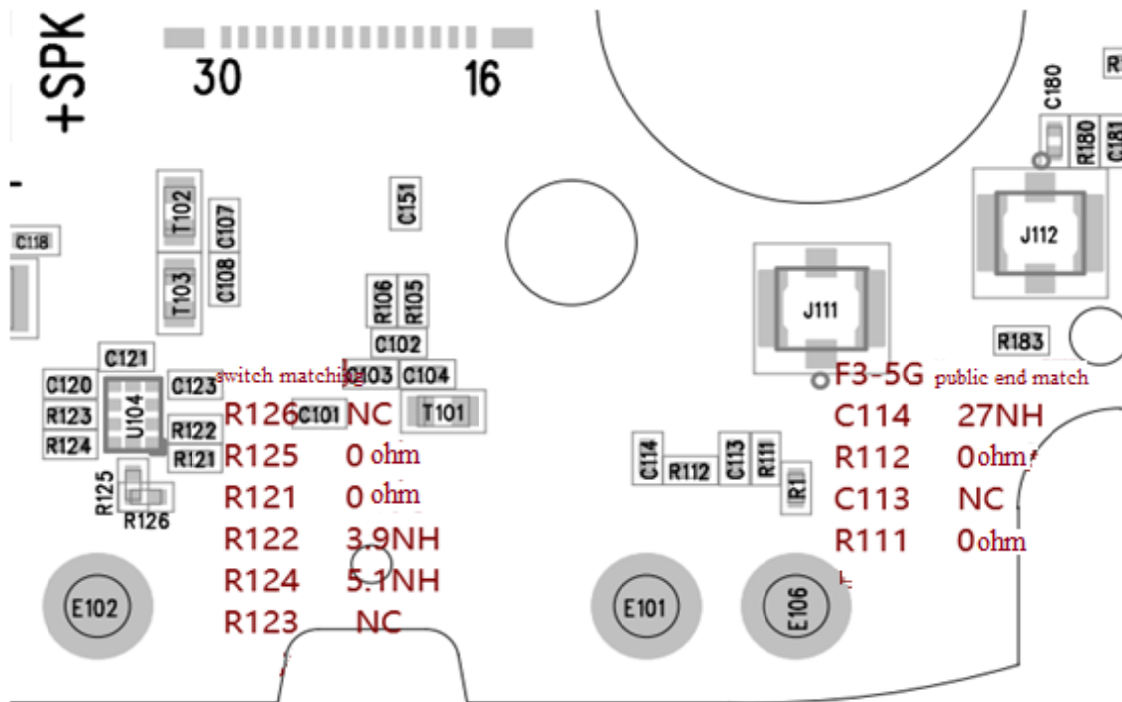
主集天线 (Master antenna 0)

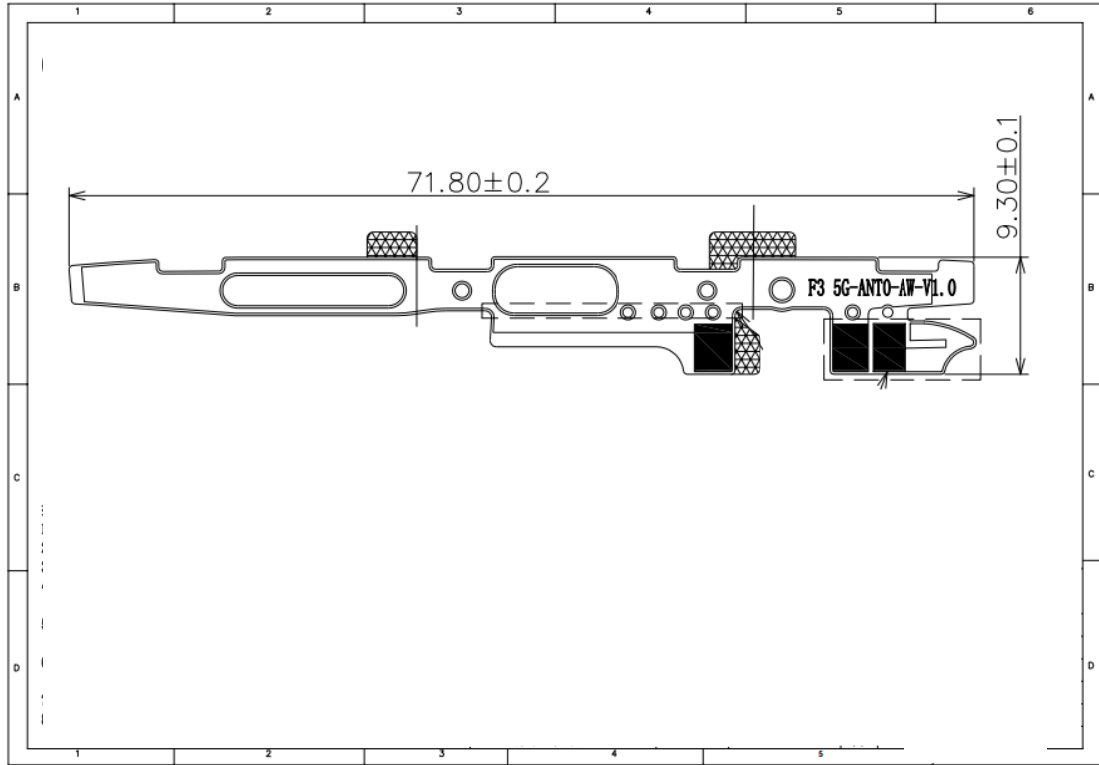
工作频段(Working frequency band): 700MHZ~960MHZ GSM850/900 WCDMB5/8  
 FDD5/8/12/13/17/18/19/20/26/28AB CDMA BC0 N5/N8/N20/N28

天线匹配(Matcheing network):

- C114: 27NH
- R112: 0Ω
- C113: NC
- R111: 0Ω

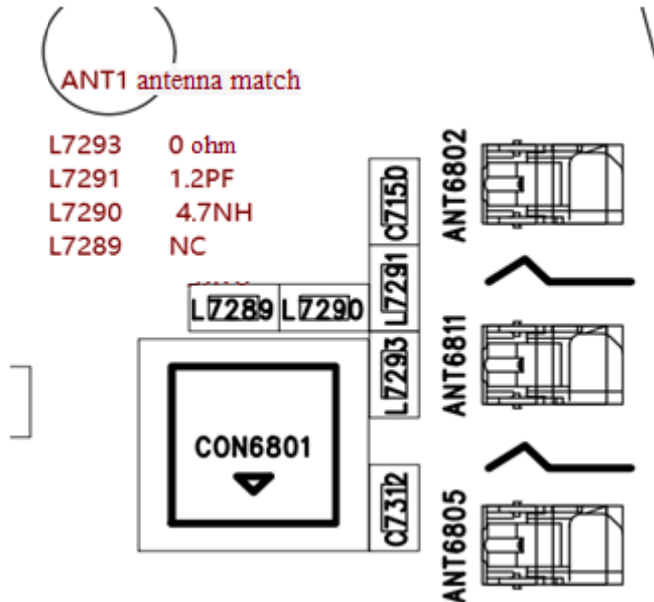
F3-5G-ANT0射频匹配和开关频段分路如下: The F3-5G-ANT0 RF matching and switching band splits are as follows		
频段 (Frequency band)	位号 (Bit Number)	匹配 (Match)
GSM8/W8/FDD8/7/BC1/TDD38/40/41/N7/N8/N38/N40/N41	RF1 (R121)	0 ohm
GSM5/W5/6/19/FDD5/18/19/20/26/CDMA BC0/N5/N20 (850MHZ)	RF2 (R122)	3.9NH
12/13/17/B28A/B28B/N28 (700MHZ)	RF3 (R124)	5.1NH
	RF4 (R123)	
	R125	0 ohm
	R126	NC





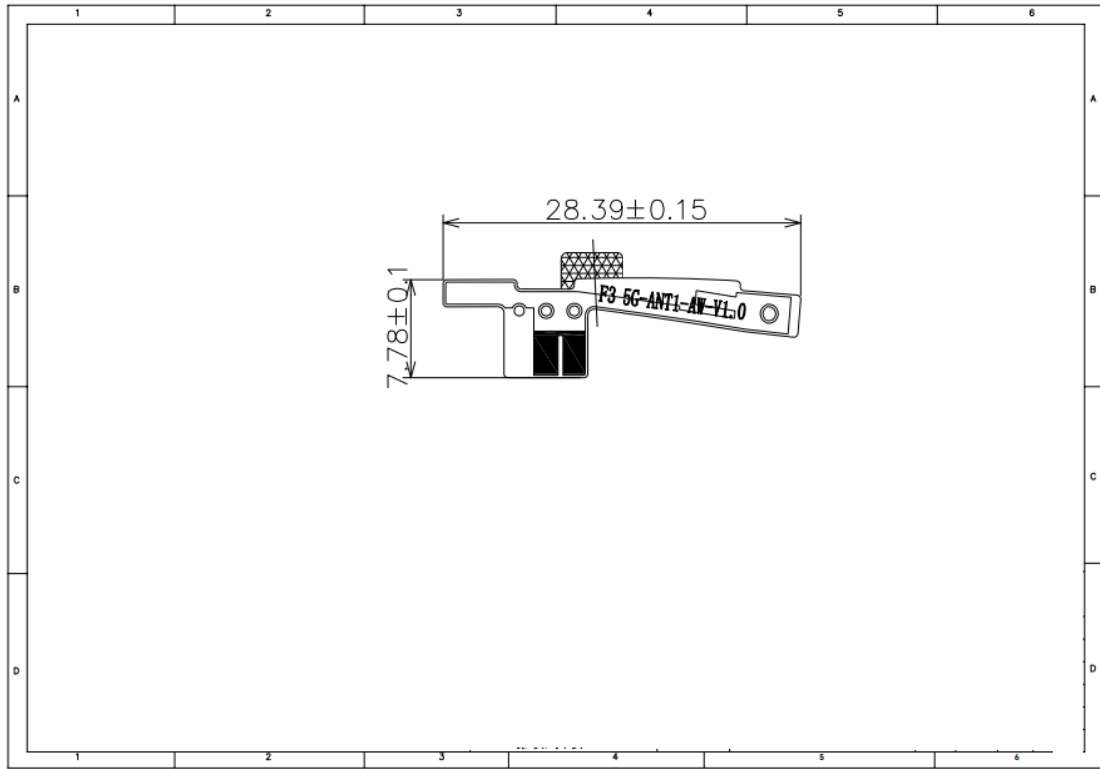
分集天线 (Diversity antenna )

ANT1 天线匹配 (ANT1 antenna match)

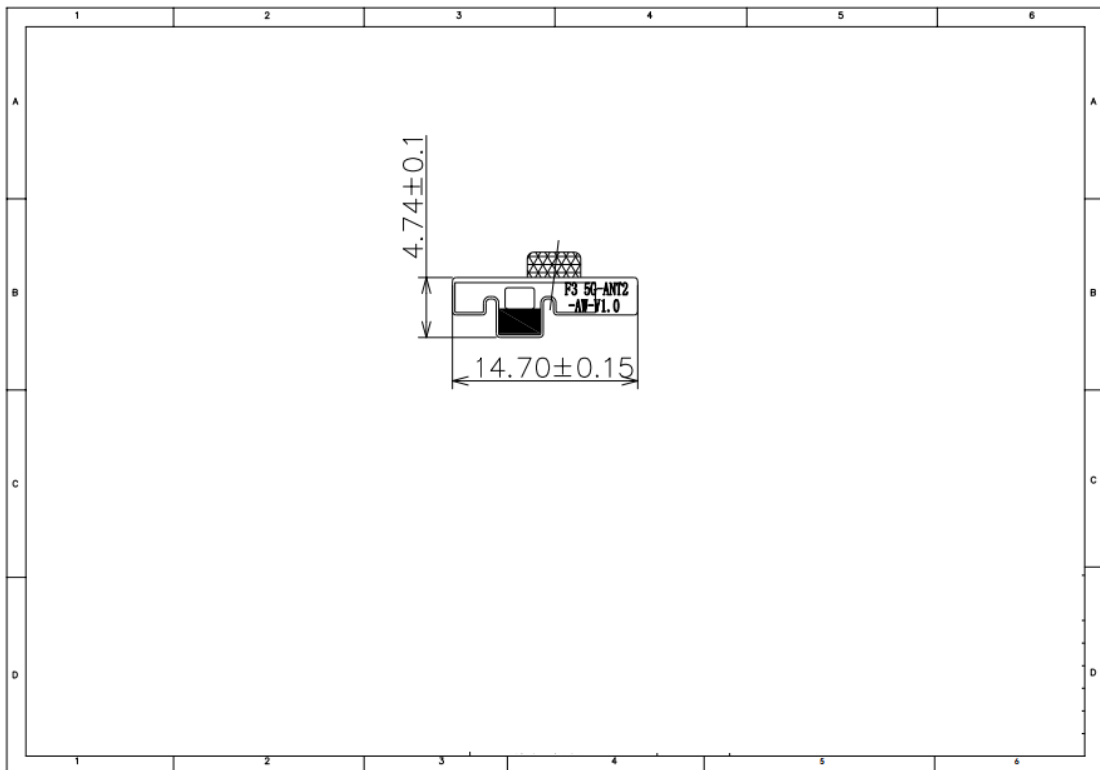


工作频段(Working frequency band):1710MHZ~2170MHZ

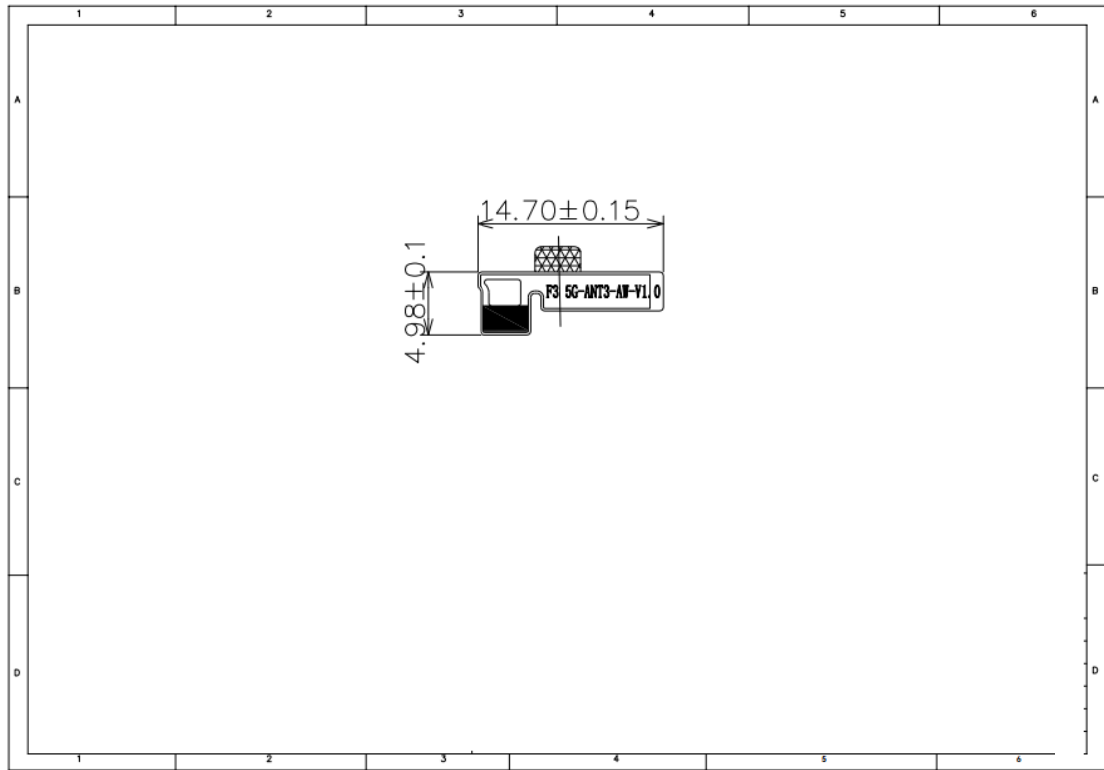
DCS1800/PCS1900/WCDMA1/2/4/BC1/FDD1/2/3/4/25/66/TDD34/N1/N2/N3/N25/N66



ANT2-PRX 工作频段 (Working frequency band) :1710MHz-2620MHz 3.3G-5.0G

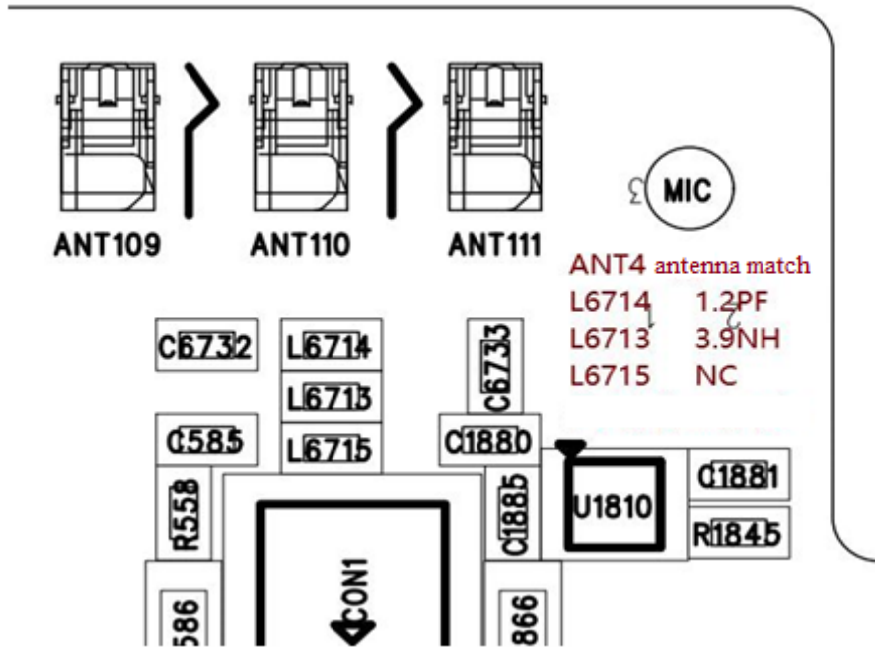


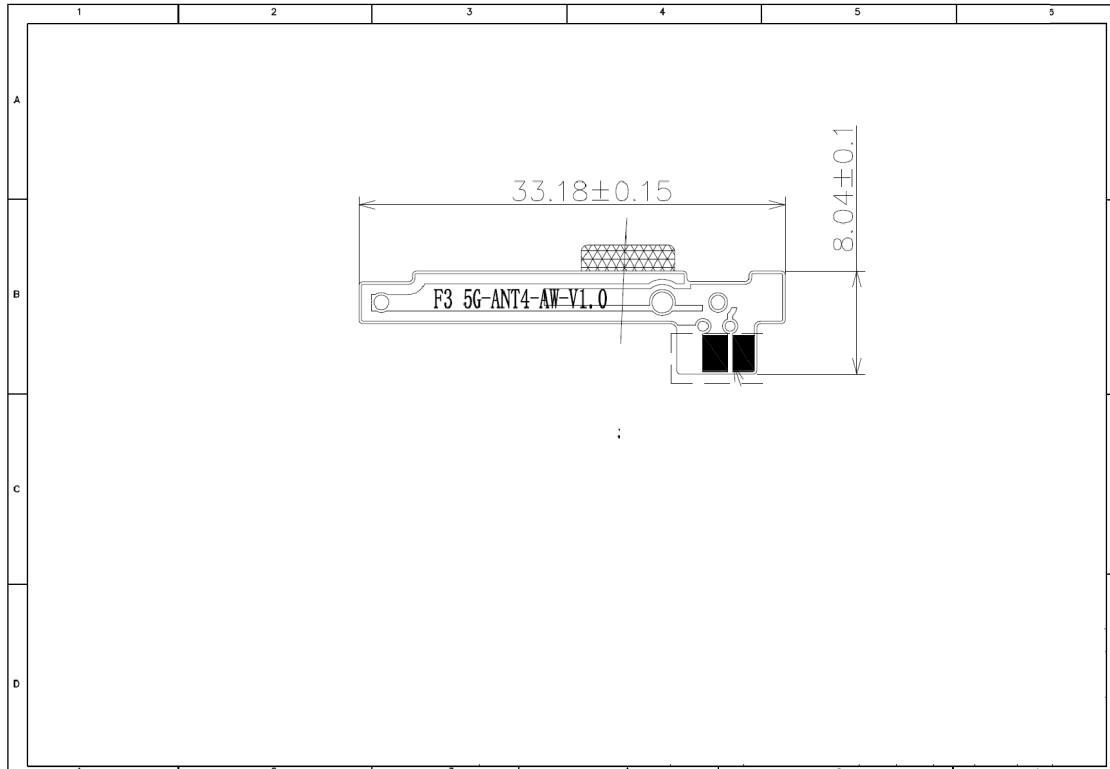
**ANT3-PRX and ANT3-PRX** 工作频段 (Working frequency band): 1710MHz-2620MHz 3.3G-5.0G



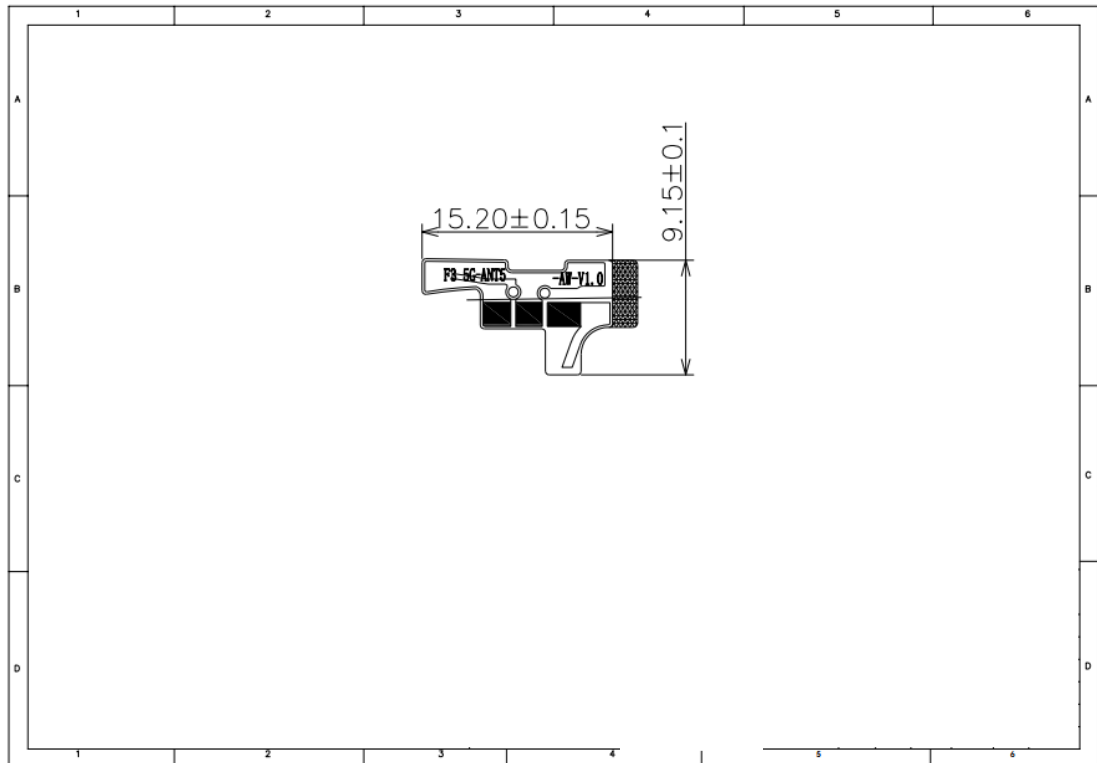
**ANT4-PRX** 工作频段 (Working frequency band) : 824MHz-2620MHz

ANT4 天线匹配 (ANT4 antenna match)





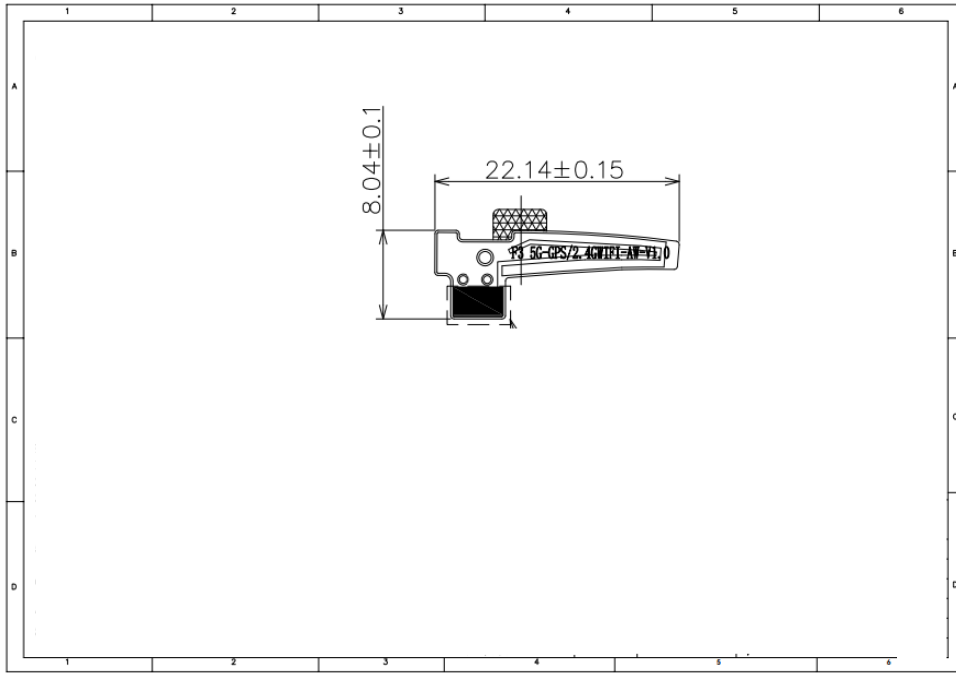
ANT5-PRX 工作频段 (Working frequency band) :3.3G-5.0G



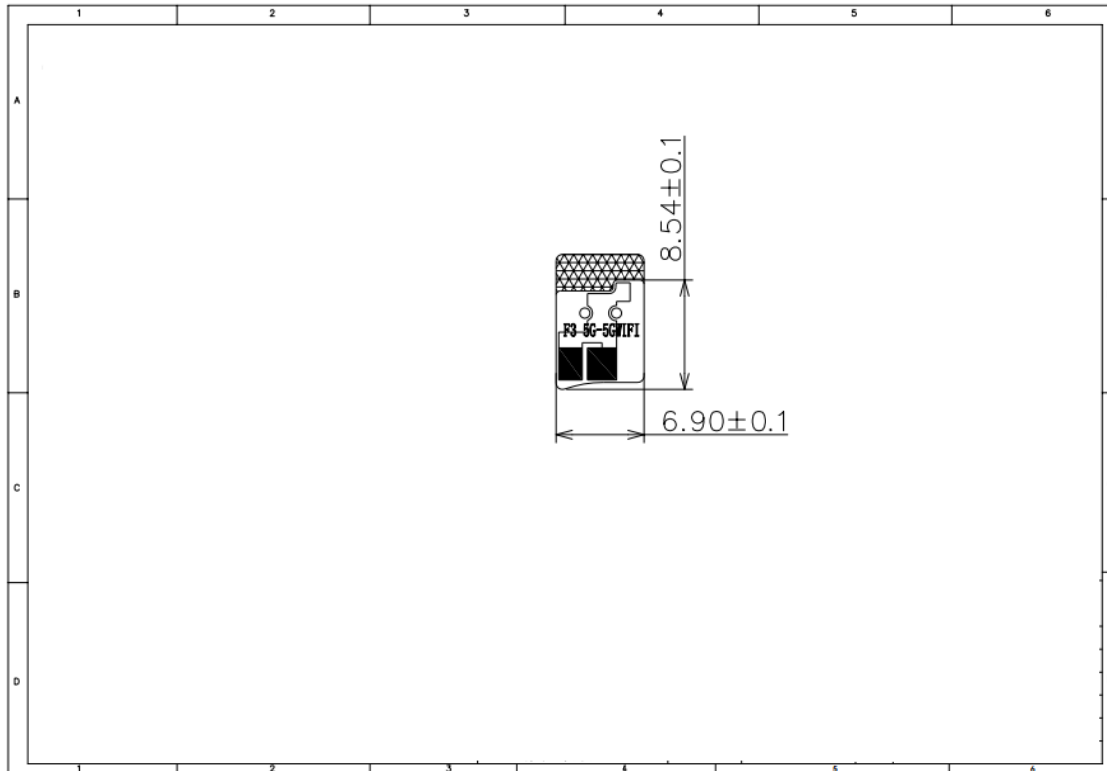
**GWB 天线 (GPS/WIFI/BT antenna)**

GPS 天线工作频段 (Working frequency band of GPS antenna) : 1559MHZ~1616MHZ

2.4GWIFI 工作频段 (Working frequency band): 2410MHZ~2500MHZ

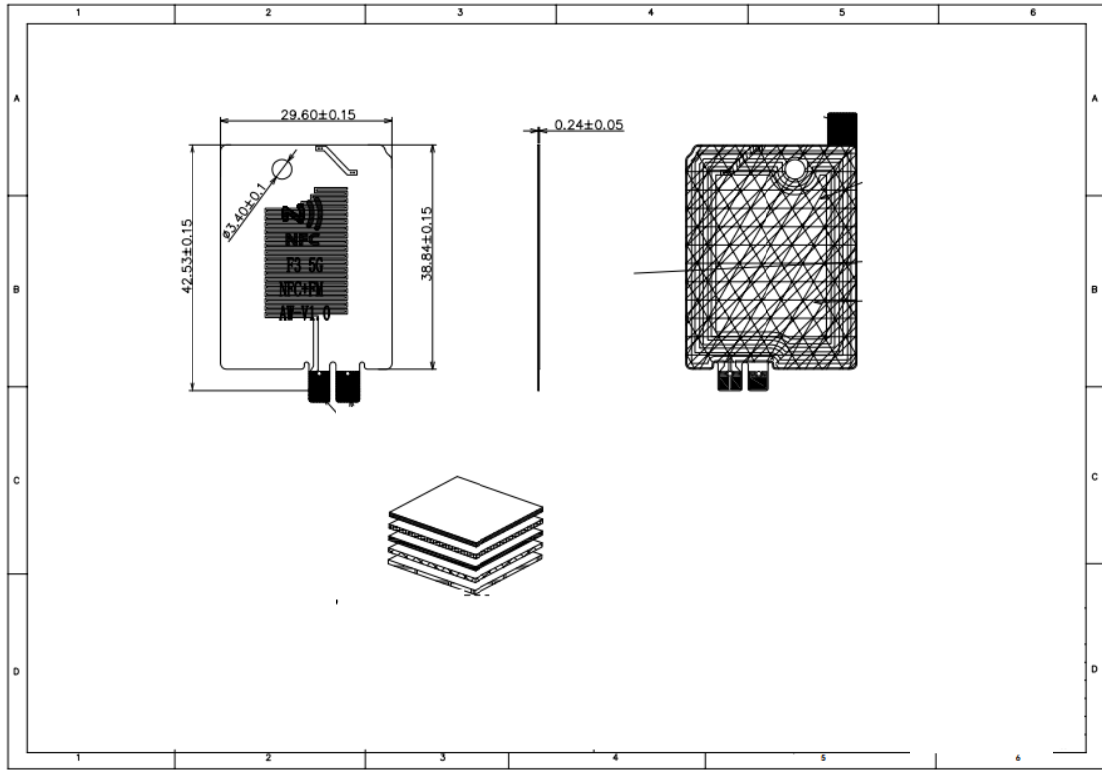


**5GWIFI 工作频段 (Working frequency band of 5GWIFI antenna) : 5150MHZ~5850M**





NFC 天线 (NFC antenna) 工作频段 (Working frequency band): 13.56MHz



**ANWEI ANT TRP&TIS parameter Summary of F3-5G**

	Channel	TRP (dBm)	TIS (dBm)		Channel	TRP (dBm)	TIS (dBm)		Channel	TRP (dBm)	TIS (dBm)
FDD B1	18050	17.68		FDD B13	23230	15.62	-87.92	FDD B28B	27410	15.02	
	18300	17.54				27510	15.41				
	18550	16.48	-91.26			27600	15.75		-88.12		
FDD B2	18650	17.59		FDD B17	23790	14.13		FDD B66	132022	17.74	
	18900	17.43			23790	14.03			132322	17.69	
	19150	17.61	-91.63		23790	14.04	-88.41		132622	17.62	-91.56
FDD B3	19250	17.34		FDD B18	23900	13.54		TDD (B34)	36250	16.64	
	19575	17.41			23925	14.58			36275	17.65	
	19900	17.52	-91.21		23950	14.62	-90.54		36300	16.41	-91.23
FDD B4	20000	17.35		FDD B19	24050	15.02		TDD (B38)	37850	13.38	
	20175	17.28			24075	15.67			38000	13.26	
	20350	17.41	-91.56		24100	15.23	-90.67		38150	13.12	-87.51
FDD B5	20450	15.53		FDD B20	24200	16.31		TDD (B39)	38350	17.51	
	20525	16.24			24300	17.02			38450	17.62	
	20600	16.62	-90.42		24400	17.05	-88.13		38550	17.64	-91.56
FDD B7	20800	14.13		FDD B25	26090	17.68		TDD (B40)	38750	14.51	
	21100	14.03			26365	17.81			39150	15.02	
	21400	14.05	-89.41		26640	17.89	-91.56		39550	15.31	-88.75
FDD B8	21500	16.02		FDD B26	26740	13.56		TDD (B41)	40340		
	21625	16.08			26865	14.52			40620	13.23	-86.45
	21750	17.13	-89.34		26990	15.68	-90.68		41140		
FDD B12	23060	15.53		FDD B28A	27260	16.02					
	23095	15.42			27370	15.04					
	23130	15.41	-88.81		27469	15.44	-88.21				

SA	Channel	TRP (dBm)	TIS (dBm)		Channel	TRP (dBm)	TIS (dBm)		Channel	TRP (dBm)	TIS (dBm)
5e N1	386000	17.23		5e N28	142600	14.81		5e N25	372000	17.68	
	390000	17.12			145600	14.34			376500	17.23	
	394000	16.78	-90.13		147600	14.54	-87.03		381000	17.25	-90.34
5e N2	372000	17.35		516000	14.03						
	376000	17.06		519000	14.26						
	380000	17.21	-89.34	522000	14.51	-86.12					
5e N3	344000	16.51		5e N40	14.13						
	349500	16.48			13.56						
	355000	16.61	-90.24		13.67	-86.13					
5e N5	166800	14.56		5e N41	509202	14.35					
	167300	14.61		518598	14.86						
	167800	14.53	-90.42	528000	14.38	-83.39					
5e N7	502000	14.06		5e N66	16.04						
	507000	13.81			16.31						
	512000	13.54	-87.26		16.23	-89.45					
5e N8	178000	14.61		5e N71	134600						
	179500	15.23			136100						
	181000	15.87	-85.69		137600						
5e N12	140800			5e N77	623334	16.75					
	141500				650000	17.42					
	142200				676666	16.42	-87.69				
5e N20	168400	15.12		5e N78	623334	15.32					
	169400	15.37			636666	15.61					
	170400	15.06	-86.1		650000	15.89	-86.55				

	Channel	TRP (dBm)	TIS (dBm)		Channel	TRP (dBm)	TIS (dBm)		Channel	TRP (dBm)	TIS (dBm)
WCDMA B1	10562	17.65		CDMA BC0	1013	16.31		GSM 850	128	24.21	
	10700	16.75			384	16.12			190	24.75	
	10838	16.15	-103.23		777	16.56	-101.2		251	25.81	-102.1
WCDMA B2	9262	17.68		CDMA BC1	777	17.62		1	25.21		
	9400	17.71		25	17.48		62	25.62			
	9538	17.69		600	17.31	-102.3	124	26.34	-101.7		
WCDMA B4	1312	16.51		CDMA BC10	0			512	24.03		
	1413	17.05		720			698	24.69			
	1513	17.13	-103.5	919			885	25.47	-103.5		
WCDMA B5	4132	14.56					512	25.51			
	4183	15.06					661	25.49			
	4233	15.76	-102.6				810	25.23	-102.7		
WCDMA B6	4162	15.02									
	4175	15.04									
	4188	15.09	-102.8								
WCDMA B8	2712	15.06		TD B34	10054	16.61					
	2787	15.03			10087	17.54					
	2863	15.64	-101.84		10121	16.59	-105.8				
WCDMA B19	312	15.06		TD B39	9404	17.52					
	412	15.21			9500	17.64					
	437	14.56	-102.6		9596	17.68	-106.4				

## 2. 4G WIFI and 5G WIFI Active data

Standard	Band	Channel	Frequency	TRP	TIS
WIFI_B	B_11M	1	2412	8.04	-80.13
WIFI_B	B_11M	6	2437	8.16	-80.24
WIFI_B	B_11M	11	2462	8.91	-80.56
WIFI_A	A_54M	36	5180	7.63	-70.13
WIFI_A	A_54M	64	5320	7.45	-69.69
WIFI_A	A_54M	165	5825	7.13	-69.16

## GPS 测试(GPS Test)



GPS 效率(Efficiency of GPS antenna): 45%

## 天线增益(Antenna gain)

GSM850	-0.67
EGSM900	-0.61
DCS1800	-0.46
PCS1900	-0.37
W2100	-0.48
W900	-0.61
W850	-0.67
W1900	-0.37
W1700	-0.46
W2000	-0.43
W800	-0.61
BC0	-0.62
BC1	-0.46
FDD	
B1	-0.48
B2	-0.37
B3	-0.46
B4	-0.41
B5	-0.67
B7	-0.39
B8	-0.61
B12	-0.67
B13	-0.71
B17	-0.69
B18	-0.68
B19	-0.59
B20	-0.61
B25	-0.41

NR	
N1	-0.46
N2	-0.37
N3	-0.46
N5	-0.67
N7	-0.39
N8	-0.61
N12	
N20	-0.61
N25	-0.38
N28	-0.70
N38	-0.39
N40	-0.36
N41	-0.42
N66	-0.46
N71	
N77	-0.47
N78	-0.49

B26	-0.61
B28	-0.69
TDD	
B34	-0.36
B38	-0.39
B39	-0.37
B40	-0.36
B41	-0.42
B66	-0.46
NFC	1.47
GPS	-0.41
2.4G WIFI	-0.58
BT	-0.58
5G WIFI	0.13

Unit: dBi