

Antenna testing report



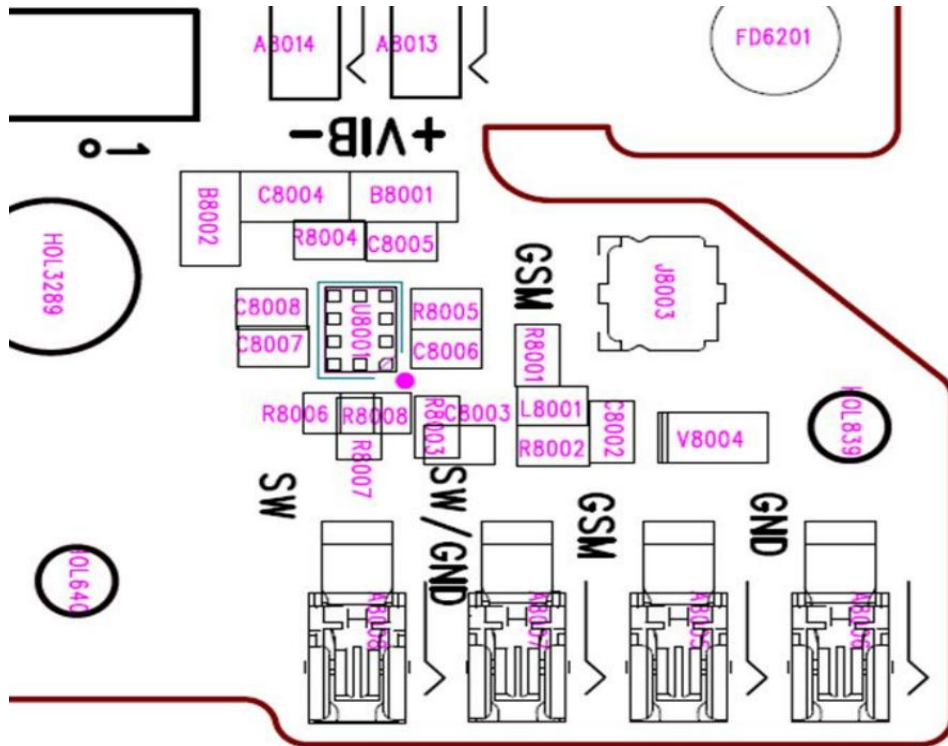
Bands :

GSM: 850/900/1800/1900

WCDMA: 1/2/5/8

**4G: 2/3/4/5/7/12/17/28A
/28B/66 WIFI: 2.4G**

Model : FPC



R8001	0 欧	C8006 (RF1)	8.2PF
L8001	NC	R8005 (RF2)	0 欧
R8002	0 欧	C8007 (RF3)	8.2NH
C8002	9.1NH	C8008 (RF4)	NC

深圳市安弗特电子有限公司

AFT tech Electronic Co., Ltd. (Shenzhen)

The main antenna transmits data

Band	Channal	功率	灵敏度	Band	Channal	功率	灵敏度
GSM850	L	31.94		GSM900	L	32.26	
	M	32.18			M	32.26	
	H	32.21	-109.00		H	32.25	-109.00
GSM1800	L	29.16		GSM1900	L	28.60	
	M	28.92			M	28.40	
	H	28.80	-108.00		H	28.27	-108.00
W2100	L	22.16		W1900	L	22.17	
	M	22.17			M	22.11	
	H	22.11	-110.00		H	22.14	-109.00
W850	L	22.25		W900	L	22.31	
	M	22.33			M	22.24	
	H	22.30	-110.00		H	22.18	-110.00
LTE-B2 (10M)	L	22.58		LTE-B3 (10M)	L	22.61	
	M	22.63			M	22.00	
	H	22.59	-97.00		H	22.72	-97.00
LTE-B4 (10M)	L	22.46		LTE-B5 (10M)	L	22.73	
	M	22.40			M	22.95	
	H	22.58	-98.00		H	22.52	-97.50
LTE-B7 (10M)	L	21.90		LTE-B12 (10M)	L	22.80	
	M	22.02			M	22.58	
	H	22.07	-97.50		H	22.57	-98.00
LTE-B17 (10M)	L	22.55		LTE-B28A (10M)	L	22.53	
	M	22.58			M	22.53	
	H	22.60	-98.00		H	22.53	-98.00
LTE-B28B (10M)	L	22.56		LTE-B66 (10M)	L	22.40	
	M	22.63			M	22.50	
	H	22.75	-98.00		H	22.57	-98.00

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Main antenna OTA

Band	Channal	TRP(dBm)	TIS(dBm)	Band	Channal	TRP(dBm)	TIS(dBm)
GSM850	L	25.9		GSM900	L	24.3	
	M	26.2			M	23.5	
	H	26.1	-102.4		H	23.3	-98.2
GSM1800	L	24.2		GSM1900	L	24.1	
	M	24.4			M	24.2	
	H	24.2	-102.8		H	24.5	-103.6
W2100	L	16.8		W1900	L	16.6	
	M	16.6			M	16.8	
	H	16.2	-103.1		H	17.3	-103.1
W850	L	16.2		W900	L	15.0	
	M	16.0			M	15.3	
	H	15.9	-102.6		H	15.1	-102.1
LTE-B2 (10M)	L	17.4		LTE-B3 (10M)	L	15.3	
	M	17.3			M	15.6	
	H	17.0	-92.5		H	15.7	-91.4
LTE-B4 (10M)	L	15.6		LTE-B5 (10M)	L	15.6	
	M	16.1			M	15.6	
	H	16.4	-91.6		H	15.2	-89.2
LTE-B7 (10M)	L	17.3		LTE-B12 (10M)	L	16.9	
	M	17.2			M	17.1	
	H	16.8	-90.2		H	17.0	-89.1
LTE-B17 (10M)	L	17.2		LTE-B28A (10M)	L	17.0	
	M	17.3			M	16.9	
	H	17.2	-89.7		H	16.3	-89.1
LTE-B28B (10M)	L	17.2		LTE-B66 (10M)	L	15.6	
	M	16.3			M	16.3	
	H	16.0	-88.8		H	16.5	-91.6

- 1: Attach 8.2PF capacitor to RF1, control GSM900/1900,W 1/2/8,LTE-B2 band;
- 2: Stick 0 oHM resistor at RF2, control GSM850/1800,W5,LTE-B3/4/5/7/66 band;
- 3: 8.2NH inductance at RF3, control LTE-B12/17/28A/28B band;

Main antenna on and off screen test

Band	Channal	Maximum off screen sensitivity	Brightness maximum sensitivity	Band	Channal	Maximum off screen sensitivity	Brightness maximum sensitivity
GSM900	L	-103.1	-101.2	DCS1800	L	-109.0	-106.2
	M	-103.2	-101.5		M	-108.0	-105.8
	H	-101.1	-100.0		H	-108.0	-105.3
GSM850	L	-107.1	-104.3	PCS1900	L	-107.3	-104.8
	M	-106.7	-104.6		M	-107.0	-105.7
	H	-106.1	-103.8		H	-107.0	-105.6

WIFI OTA test

	Channal	TRP(dBm)	TIS(dBm)
2.4G	L	9.5	-63.4
	M	10.1	-71.8
	H	9.8	-77.6

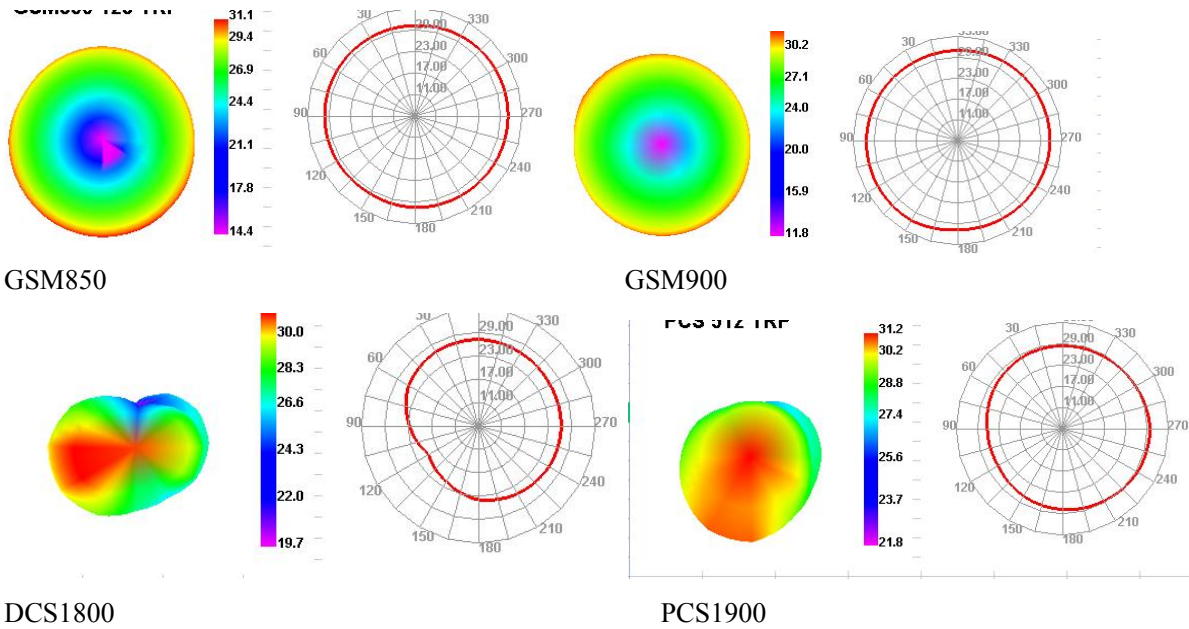
Coaxial line loss

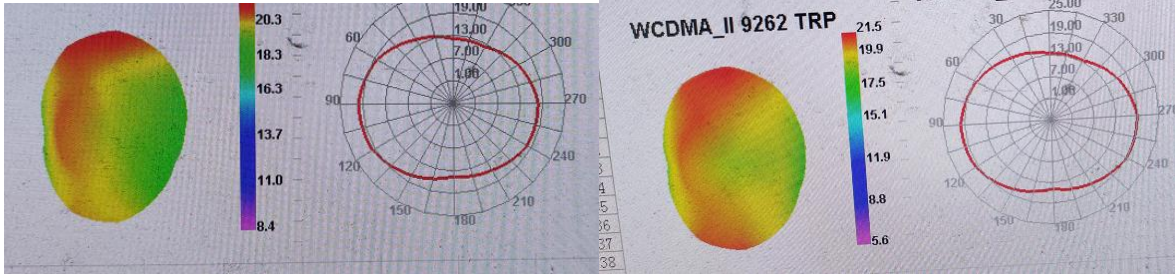
690-960MHz	0.5dBm
1710-2300MHz	0.8dBm
2300-2700MHz	1dBm

Antenna position diagram



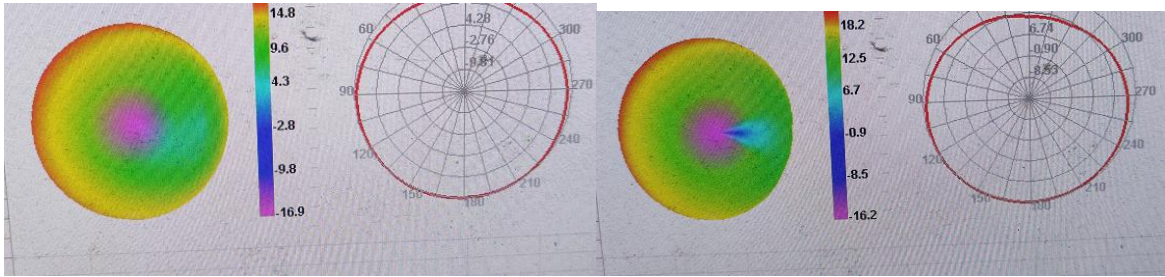
Antenna applet diagram





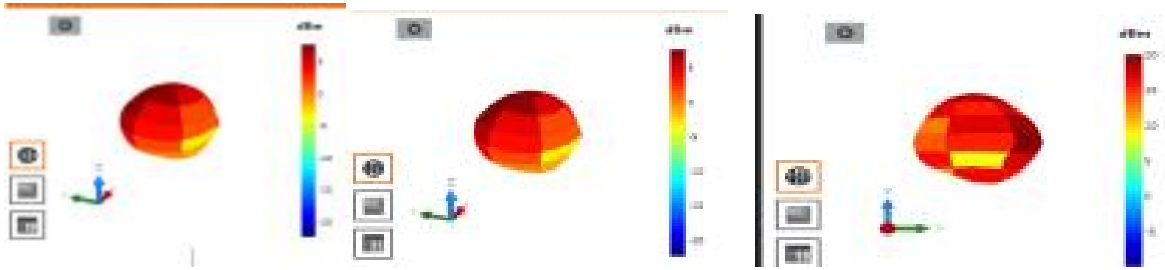
W1

W2



W5

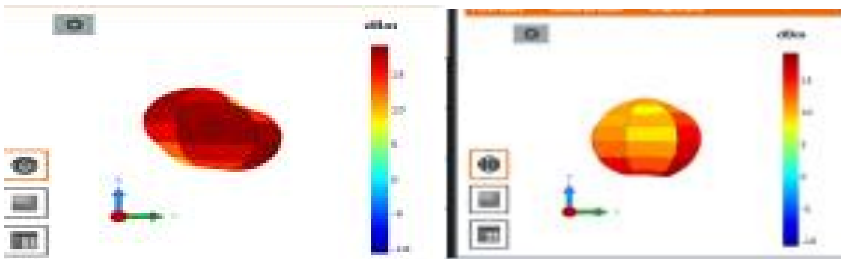
W8



B2

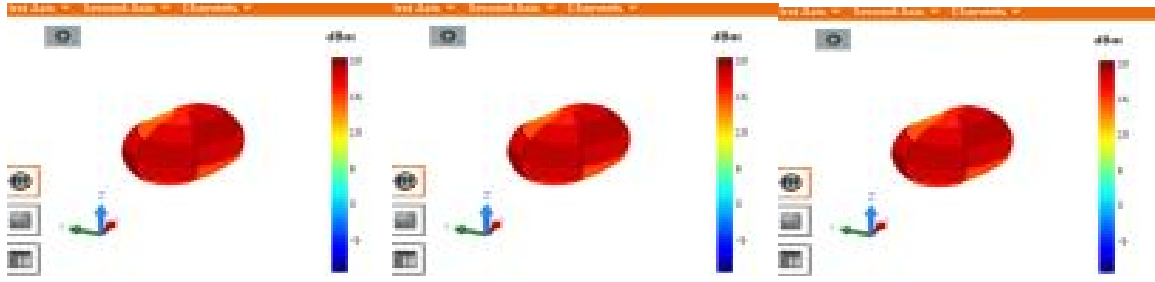
B3

B4



B5

B7



B12

B17

B28AB28B



B28B

Antenna Gain

Frequency (MHz)	Gain (dBi)
LTE-B28A/28B/12/17 (698MHz~805MHz)	-1.0
850/W5/LTE-B5 (824MHz~894MHz)	-1.3
900/W8/LTE-B8 (880MHz~960MHz)	-1.8
1800/LTE-B3/66 (1710MHz~2179MHz)	-1.1
1900/W2/LTE-B2/4 (1850MHz~1990MHz)	-1.5
W1 (1920MHz~2170MHz)	-1.4
LTE-B7 (2500MHz~2690MHz)	1.2
BT/WIFI2.4 (2400MHz~2500MHz)	1.2

