

MT912 antenna

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1. Project images

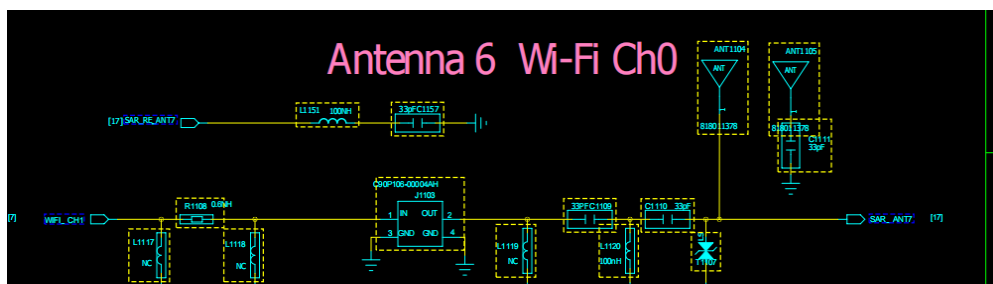
2. Testing fixtures

3. Antenna matching

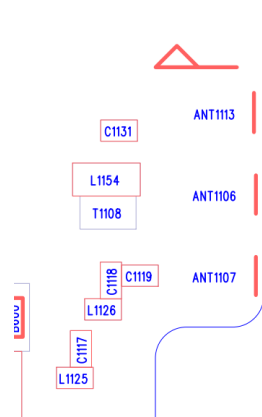
ANT6



C1110	33pF	C1111	33pF
L1120	100nH		
C1109	33pF		
L1119	NC		



ANT7

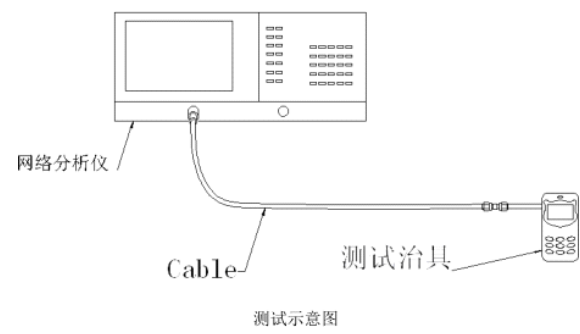


C1118	33pF	C1119	33pF
L1126	100nH	C1131	33pF
C1117	0 Ω		
L1125	NC		



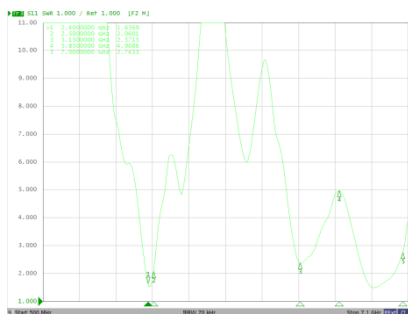
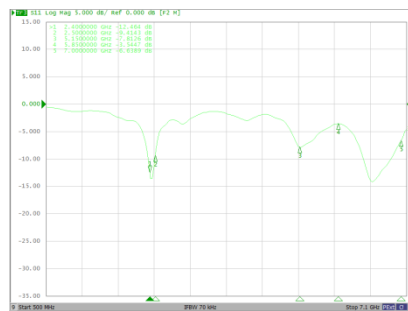
4. S11 Test

4.0 S11 Testing Method

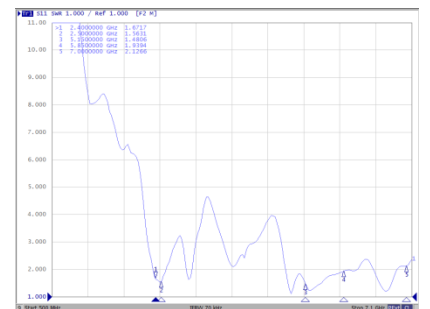
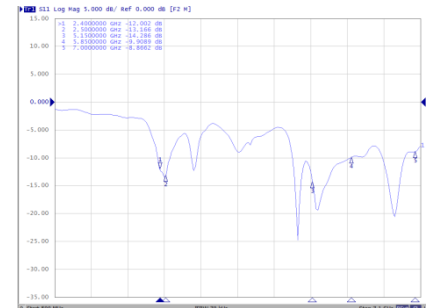


4.1 Return loss

A N T 6



A N T 7



5. Dark room test data

5.0 Testing Equipment

Test system: Shielded darkroom

Test environment: temperature $22\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Testing equipment: When testing passive data, use the Agilent E5071C network analyzer

When testing active data, use the comprehensive testing instrument CMW 500 and Keysight 5G E7515E

5.1 Passive data

ANT6

Frequency/Mh z	Efficiency / dB	Efficiency y / %	PeakGain/dB i	Frequency/Mh z	Efficiency y / dB	Efficiency y / %	PeakGain/dB i
2400	-3.9	40.6%	-0.1	5940	-5.1	30.8%	-0.3
2410	-4.0	39.5%	-0.4	5980	-5.2	30.1%	-0.2
2420	-4.2	38.2%	-0.5	6020	-4.8	32.8%	0.3
2430	-4.3	36.7%	-0.6	6060	-4.8	33.3%	0.4
2440	-4.5	35.7%	-0.7	6100	-4.8	33.5%	0.2
2450	-4.6	34.6%	-0.9	6140	-4.8	33.4%	-0.2
2460	-4.8	33.4%	-1.2	6180	-4.9	32.4%	-0.7
2470	-4.9	32.1%	-1.5	6220	-5.5	28.4%	-1.4
2480	-5.2	30.4%	-1.9	6260	-5.9	25.5%	-2.2
2490	-5.5	28.1%	-2.5	6300	-6.3	23.7%	-2.9
2500	-5.8	26.0%	-2.8	6340	-6.8	20.7%	-3.7
5150	-4.8	32.8%	0.5	6380	-7.0	20.2%	-4.0
5190	-5.4	29.1%	0.2	6420	-7.0	19.8%	-4.4
5230	-6.0	25.0%	-0.6	6460	-6.9	20.3%	-4.3
5270	-6.4	23.2%	-1.3	6500	-6.8	20.9%	-3.6
5310	-6.7	21.4%	-1.5	6540	-7.1	19.6%	-2.9
5350	-6.6	21.8%	-1.9	6580	-7.0	19.8%	-2.3
5390	-6.8	20.7%	-2.1	6620	-6.7	21.6%	-1.5
5430	-6.6	21.9%	-1.7	6660	-6.6	22.0%	-1.2

5470	-6.5	22.5%	-1.6	6700	-6.4	22.7%	-1.1
5510	-6.7	21.5%	-1.9	6740	-6.1	24.7%	-0.9
5550	-6.5	22.6%	-1.7	6780	-6.2	24.2%	-0.7
5590	-6.3	23.3%	-1.6	6820	-5.8	26.4%	-0.6
5630	-6.2	24.3%	-1.7	6860	-5.8	26.1%	-0.4
5670	-5.5	28.2%	-1.1	6900	-5.6	27.6%	-0.2
5710	-5.3	29.5%	-0.9	6940	-5.6	27.8%	-0.4
5750	-4.9	32.3%	-0.6	6980	-5.8	26.5%	-0.3
5790	-4.6	34.5%	-0.4	7020	-5.5	28.5%	0.2
5830	-4.4	36.6%	0.0	7060	-5.3	29.7%	0.4
				7120	-5.0	31.4%	0.9
				7130	-5.1	30.8%	0.7

ANT7

Frequency/Mhz	Efficiency / dB	Efficiency / %	PeakGain/dBi	Frequency/Mhz	Efficiency / dB	Efficiency / %	PeakGain/dBi
2400	-4.1	38.5%	-1.2	5960	-6.4	22.8%	0.55
2410	-4.3	37.5%	-1.2	6000	-6.4	23.0%	0.56
2420	-4.2	37.7%	-1.3	6040	-6.1	24.7%	0.79
2430	-4.1	38.5%	-1.2	6080	-6.0	25.1%	0.68
2440	-4.1	38.9%	-1.3	6120	-5.8	26.1%	0.65
2450	-4.1	39.0%	-1.3	6160	-6.0	25.3%	0.71
2460	-4.2	38.2%	-1.4	6200	-5.7	26.9%	0.48
2470	-4.3	37.3%	-1.5	6240	-5.5	28.3%	0.47
2480	-4.5	35.6%	-1.8	6280	-5.0	31.4%	0.74
2490	-4.8	33.3%	-2.0	6320	-5.0	31.6%	0.95
2500	-4.9	32.2%	-2.0	6360	-4.9	32.6%	1.11
5150	-4.8	32.8%	1.1	6400	-4.6	34.4%	1.38
5190	-5.0	31.9%	1.0	6440	-5.0	31.6%	0.93
5230	-5.1	31.1%	0.4	6480	-5.2	30.1%	0.82
5270	-5.2	30.0%	-0.3	6520	-5.3	29.7%	1.15

5310	-5.3	29.5%	0.1	6560	-5.3	29.4%	0.84
5350	-4.5	35.3%	0.7	6600	-5.7	26.7%	0.63
5390	-4.3	36.8%	0.2	6640	-5.5	28.1%	0.39
5430	-4.3	37.3%	0.7	6680	-5.8	26.6%	-0.41
5470	-4.5	35.4%	0.6	6720	-5.8	26.5%	-0.61
5510	-4.5	35.2%	1.0	6760	-5.6	27.8%	-1.02
5550	-4.7	34.1%	0.7	6800	-5.5	27.9%	-1.04
5590	-5.3	29.4%	0.6	6840	-5.9	25.9%	-1.3
5630	-5.6	27.4%	0.3	6880	-5.8	26.4%	-1.31
5670	-5.1	30.6%	-0.1	6920	-5.9	25.6%	-2.12
5710	-5.3	29.6%	-0.5	6960	-6.0	25.4%	-2.85
5750	-5.7	27.2%	-0.8	7000	-5.8	26.2%	-3.37
5790	-5.9	25.7%	-1.1	7040	-6.0	25.4%	-4.55
5830	-5.8	26.3%	-1.4	7080	-5.9	25.5%	-4.9
				7130	-6.7	21.3%	-5.18

5.2 Active data

WIFI

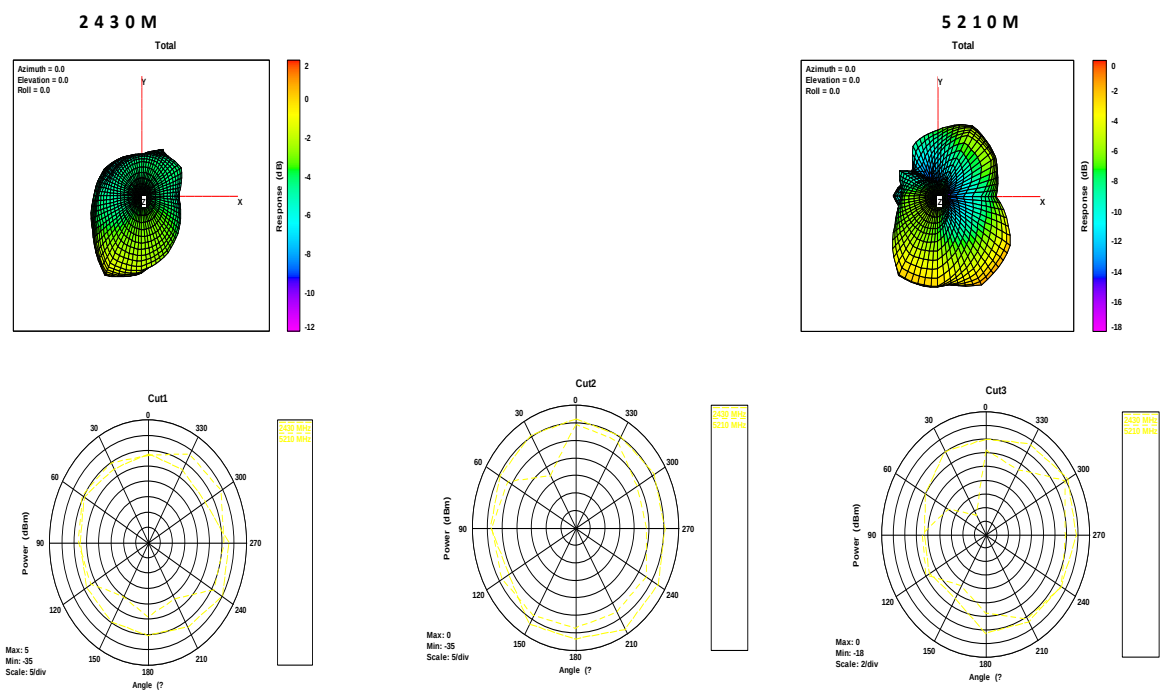
TRP

B (11M)	1	16.0		
	7	15.8		
	11	15.7	11	-83.4
A (6/54M)	36	15.0		
	64	15.6		
	165	15.8	165	-70.1

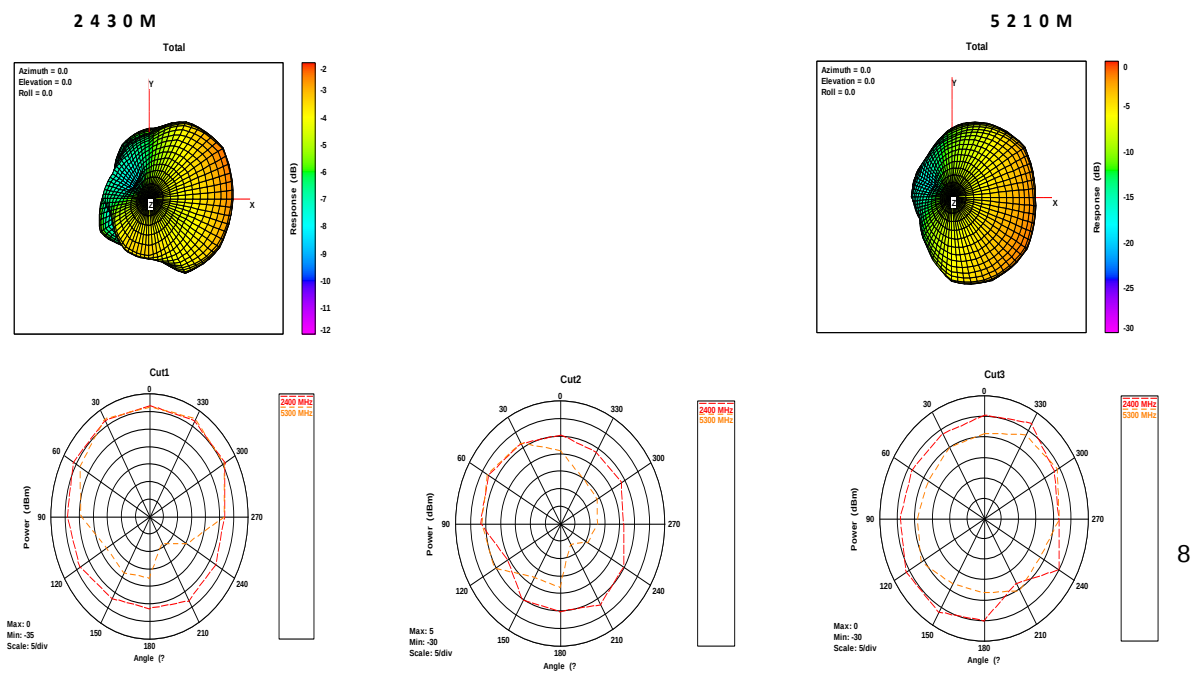
GPS	TIS	UHS
	-144.1	-140.9

5.3 2D/3D partern

ANT6



ANT7



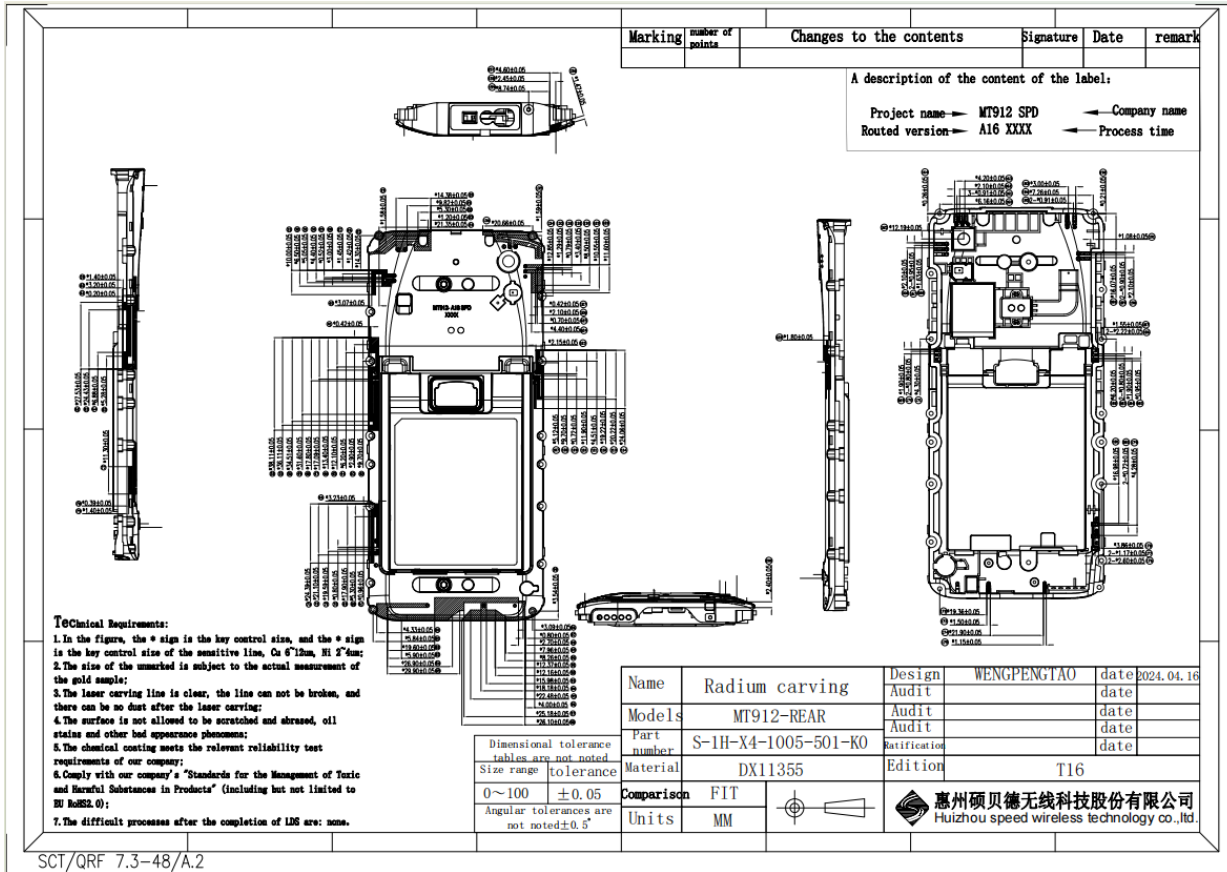
NFC antenna information:

Model: MT912-NFC-FPC

Size: 45*57.35MM

Antenna Gain: Only radiated measurements are used to show compliance with FCC limits for fundamental and spurious emissions.

6. Design



Manufacturer Name: Huizhou speed wireless technology co.,ltd.

Manufacturer Address: No.138, Hi-tech District East-river, Huizhou, Guangdong, China