

Antenna Measurement Report for CSM92F25

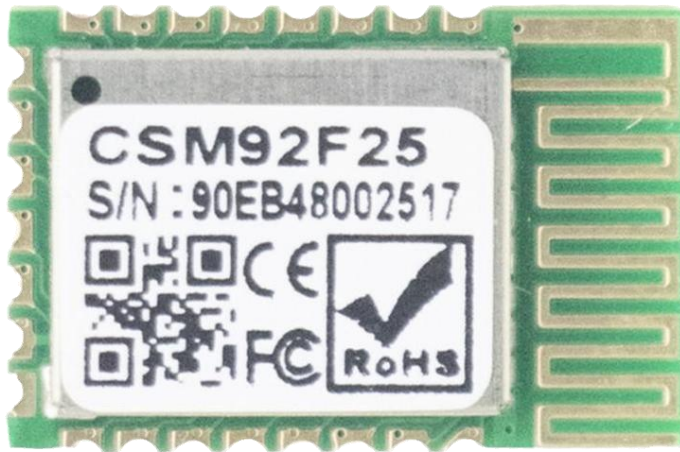
20210804

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Antenna Introduction


Part Number	XM100
Frequency	2.4GHz~2.5GHz
Dimensions	10.5mm*16mm (mm)
Manufacturer	Xinmiao



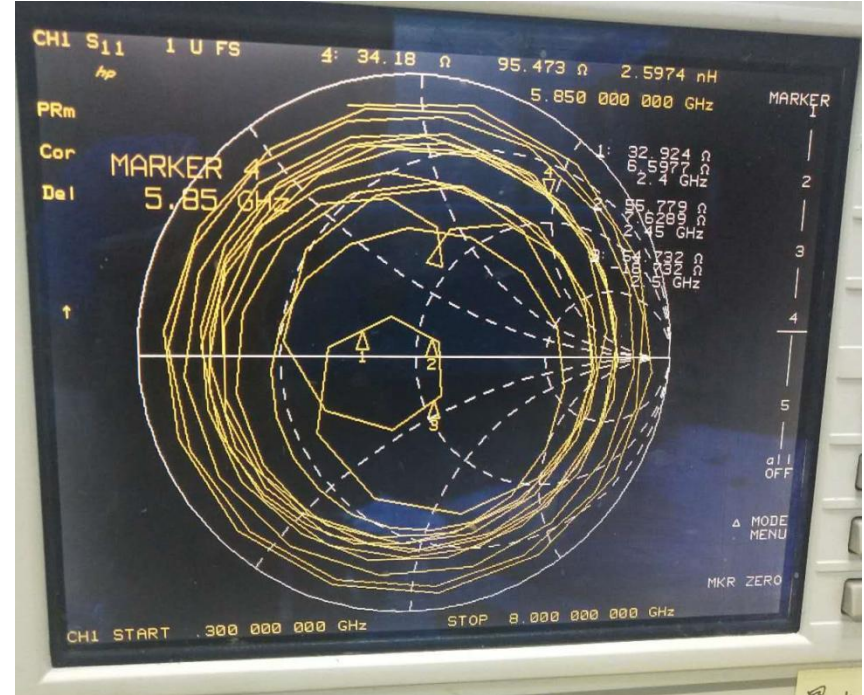
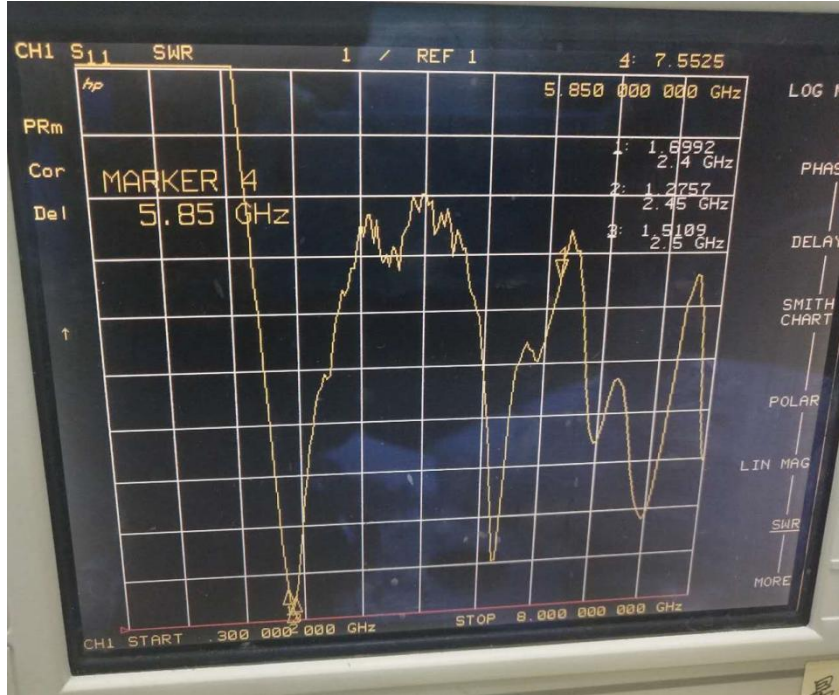
Specification

Rough description	2.4~2.5GHz 2.5dBi antenna	Dimensions	L10.5*W16 mm
Impedance	50Ω	Test environment	None
Application	BLE	Freq. Range	2.4~2.5GHz
Gain	Peak gain 2.4dBi	VSWR	1.92: 1
Radiation		Polarization	linear
HPBW / H	None	HPBW / E	None
Efficiency	50±10%	Downtilt	None
Connector type	None	Cable type	None
Isolation	None	Special request	None

Test equipment

测试项目	驻波比（回波损耗） 隔离度
测试环境与 设备	矢量网络分析仪 

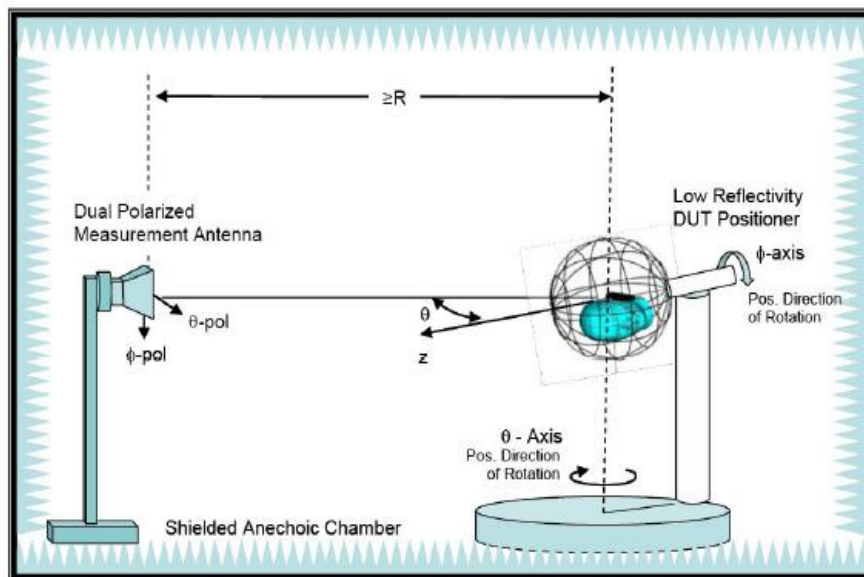
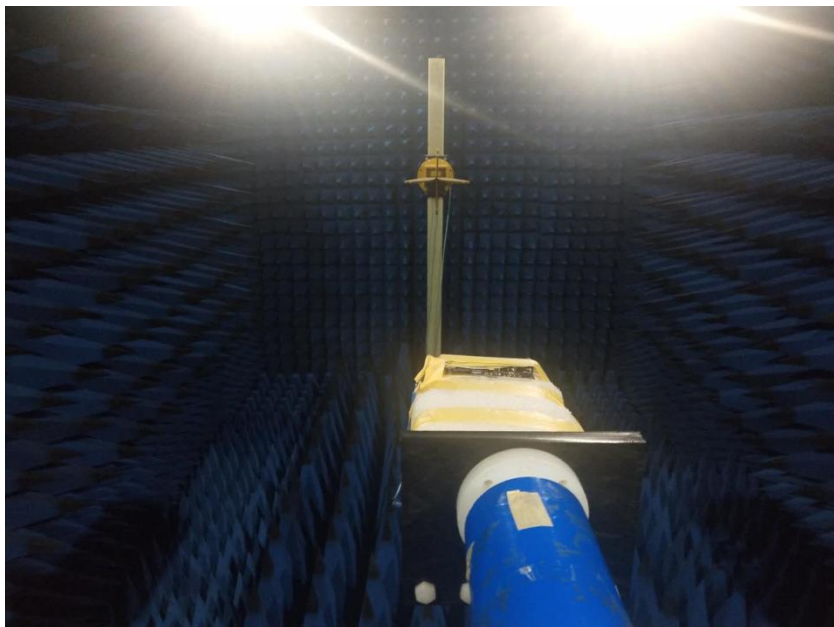
S-parameter test results Radiation test results



测试项目	测试对象	指标要求	测试频点 (GHz)		
			2.4	2.45	2.5
VSWR	BLE	≥ 1.92	1.69	1.27	1.51

Gain & Patterns test results

Measurement setting

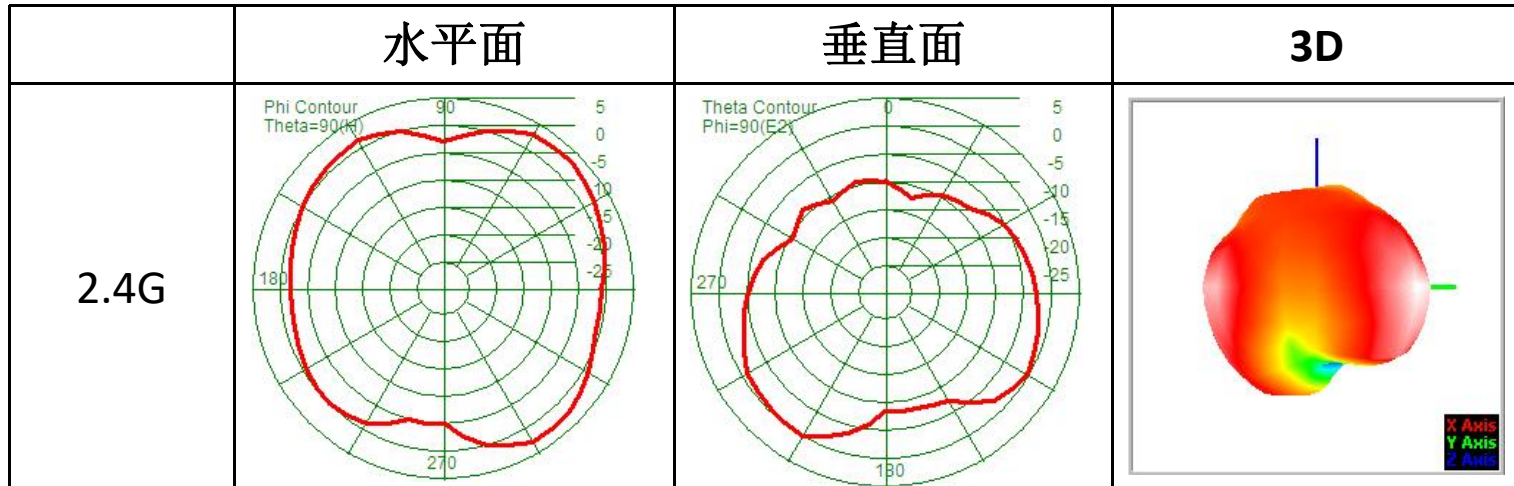


antenna gain Efficiency

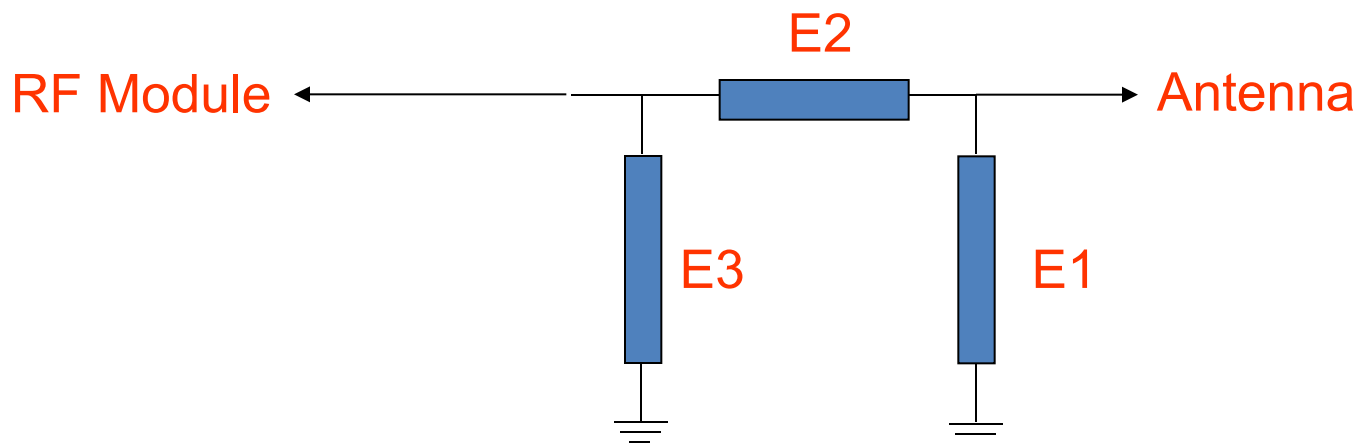
Test Point ID	Freq. (MHz)	Gain (dBi)	Efficiency (%)
1	2400.0	2.40	53.1%
2	2410.0	2.40	55.5%
3	2420.0	2.40	58.9%
4	2430.0	2.40	58.8%
5	2440.0	2.40	61.0%
6	2450.0	2.40	60.4%
7	2460.0	2.40	61.7%
8	2470.0	2.40	59.2%
9	2480.0	2.40	59.9%
10	2490.0	2.40	54.8%
11	2500.0	2.40	55.7%

Gain & Patterns test results

3D patterns



Antenna Matching



Element	Value
E1(0402)	0.5PF
E2(0402)	22PF
E3(0402)	NC