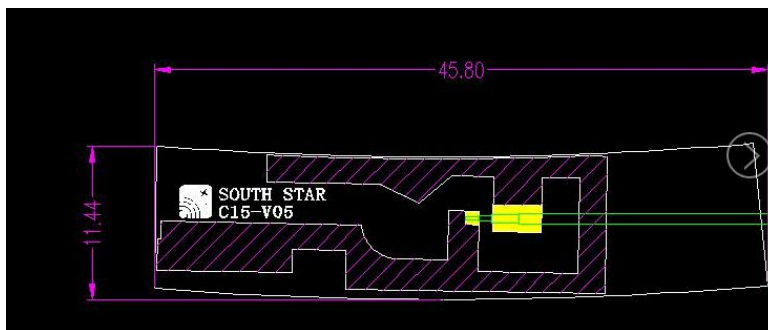


C15 WIFI Antenna

1 Antenna description



Picture1. Antenna picture



Picture2. Device picture

1.1 Proposal specification for mass production

Return loss

Frequency(MHz)	2400-2500	
Return loss(dB)	≤ -8	

1.2 Measurement Set-up

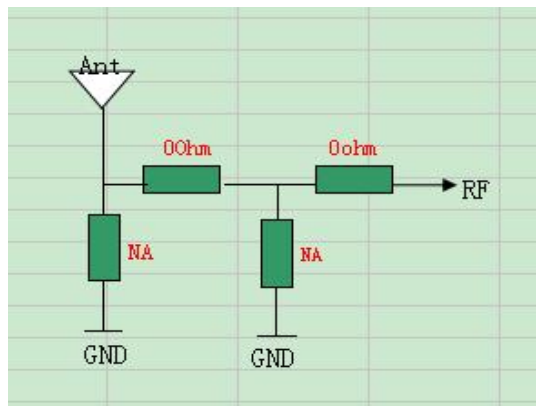
1.2.1 Return loss and VSWR

Return loss measurements (S_{11}) were performed using an Agilent ENA series Network Analyzer and the previously described test fixture. Coaxial chokes were used to mitigate surface currents on the outside of the cabling. The testing was performed in free space.

1.2.2 Efficiency

The efficiency of the antenna was measured in Amphenol's 3D anechoic chamber in Shanghai, China. The chamber is a Satimo system capable of doing tests from 700MHz to 3GHz. Coaxial chokes on the feed cable were used to mitigate surface currents during passive tests. The measurement results are calibrated using dipole standards.

1.2.3 Matching Circuit Description



2 Reference measurement data

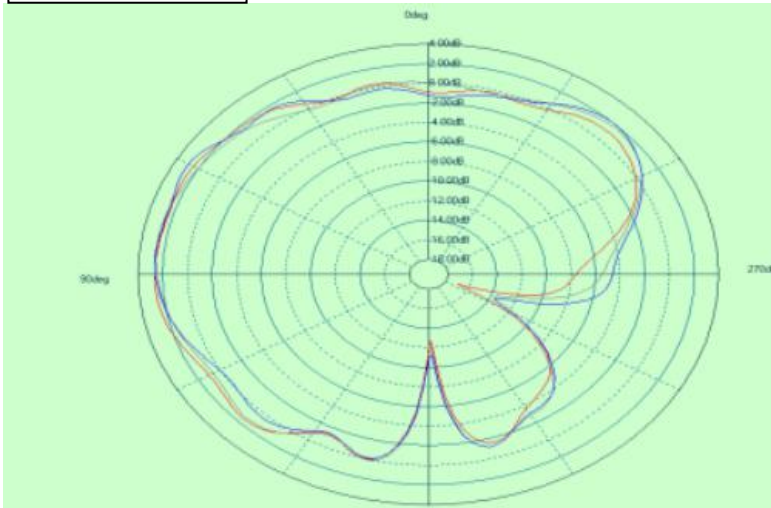
2.1 Pictures of the test fixture



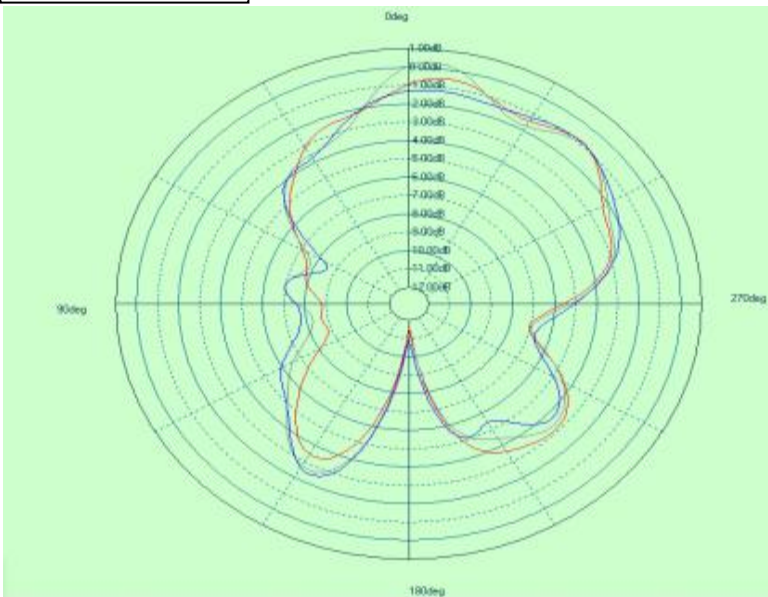
3 Reference measurement data

3.1 Pictures of the test fixture

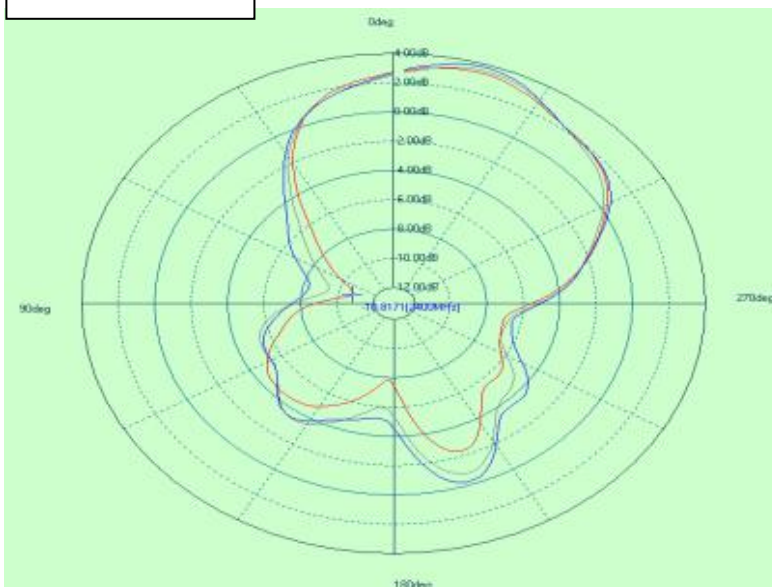
2400MHZ



2450MHZ

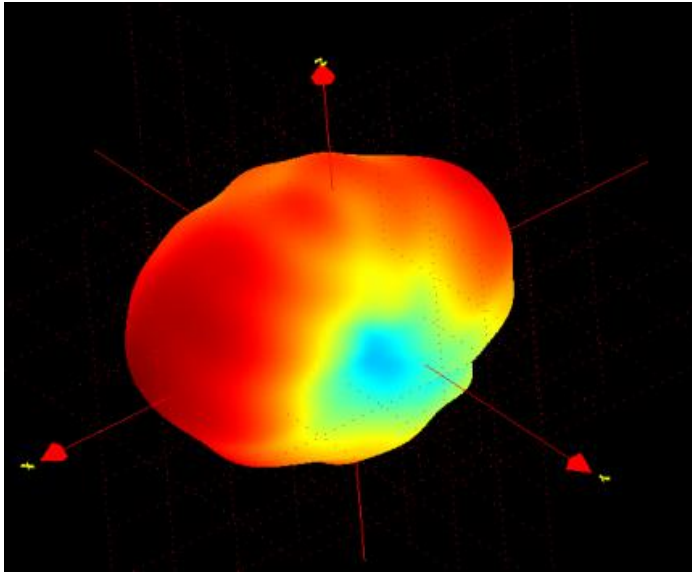


2500MHZ

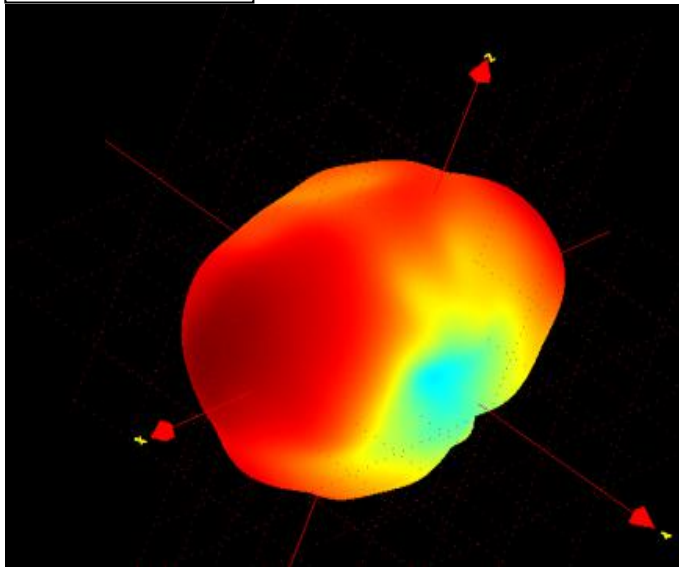


3.2 3D radiation pattern

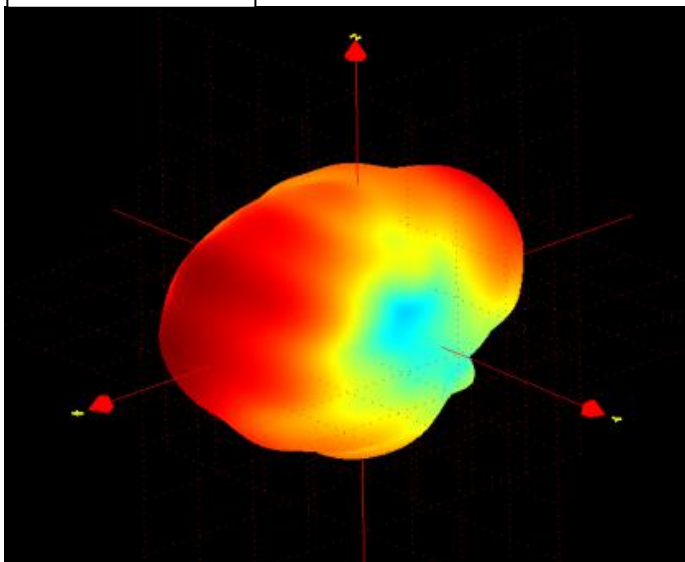
2400MHZ



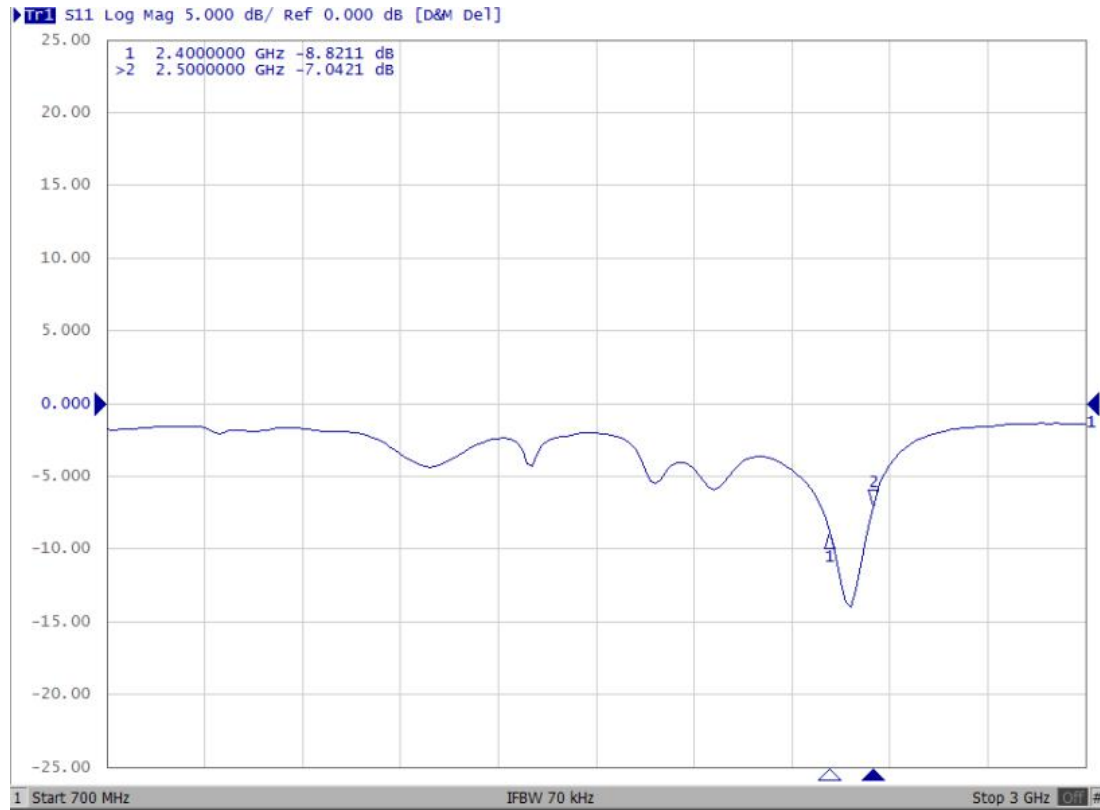
2450MHZ



2500MHZ



3.3 Return loss



3.4 Efficiency and peak gain

Freq (MHz)	Effi (%)	Gain (dBi)
2400	42.13	0.86
2410	42.24	0.71
2420	43.15	0.56
2430	43.26	0.43
2440	43.34	0.27
2450	43.58	0.66
2460	43.62	0.83
2470	42.71	0.47
2480	41.83	0.56
2490	41.62	0.42
2500	41.57	0.87

