

ASUS EBA63

Antenna Passive Pre-test

Report

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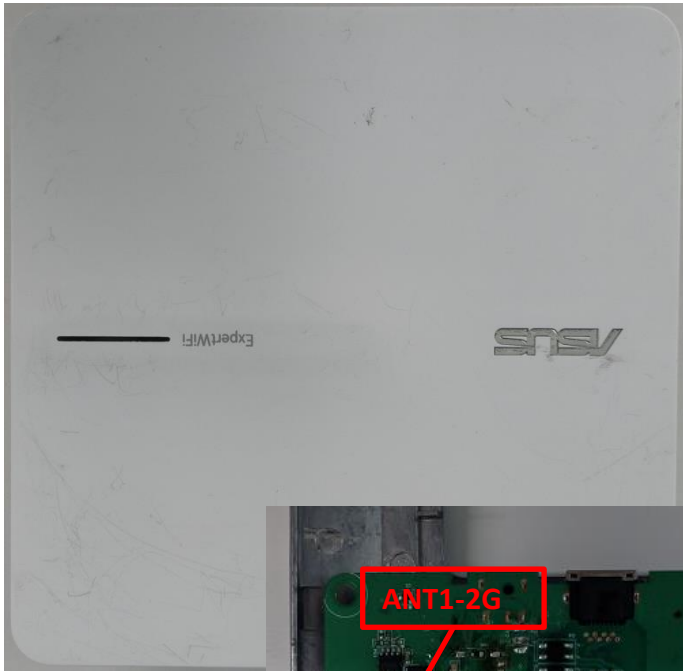
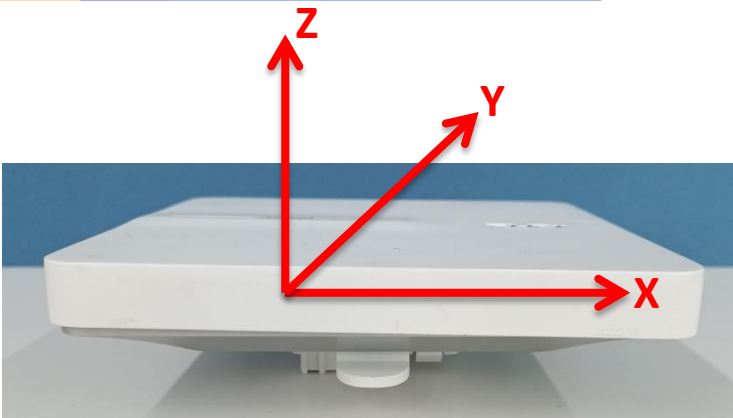
Purpose

- Meet the electrical performance index ;
- Confirm the antenna scheme to meet the design requirements;

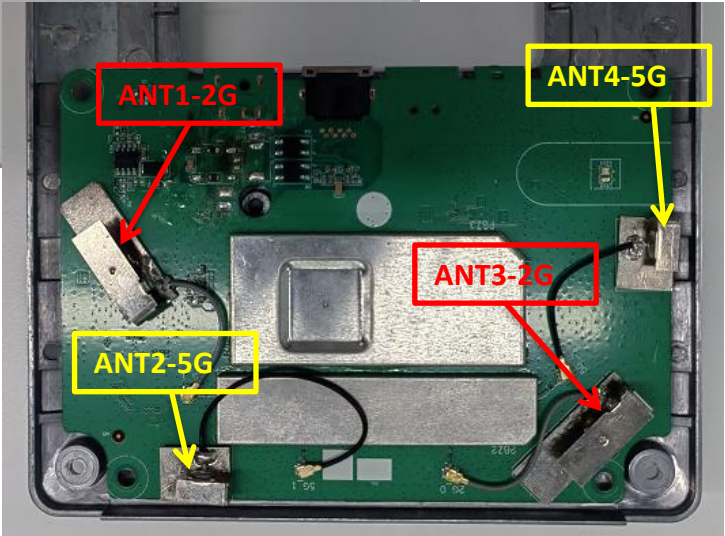
Environment

- Test Condition: the network analyzer(E5071C) and SATIMO microwave anechoic chamber
- Passive measurement results are presented

DUT Antenna

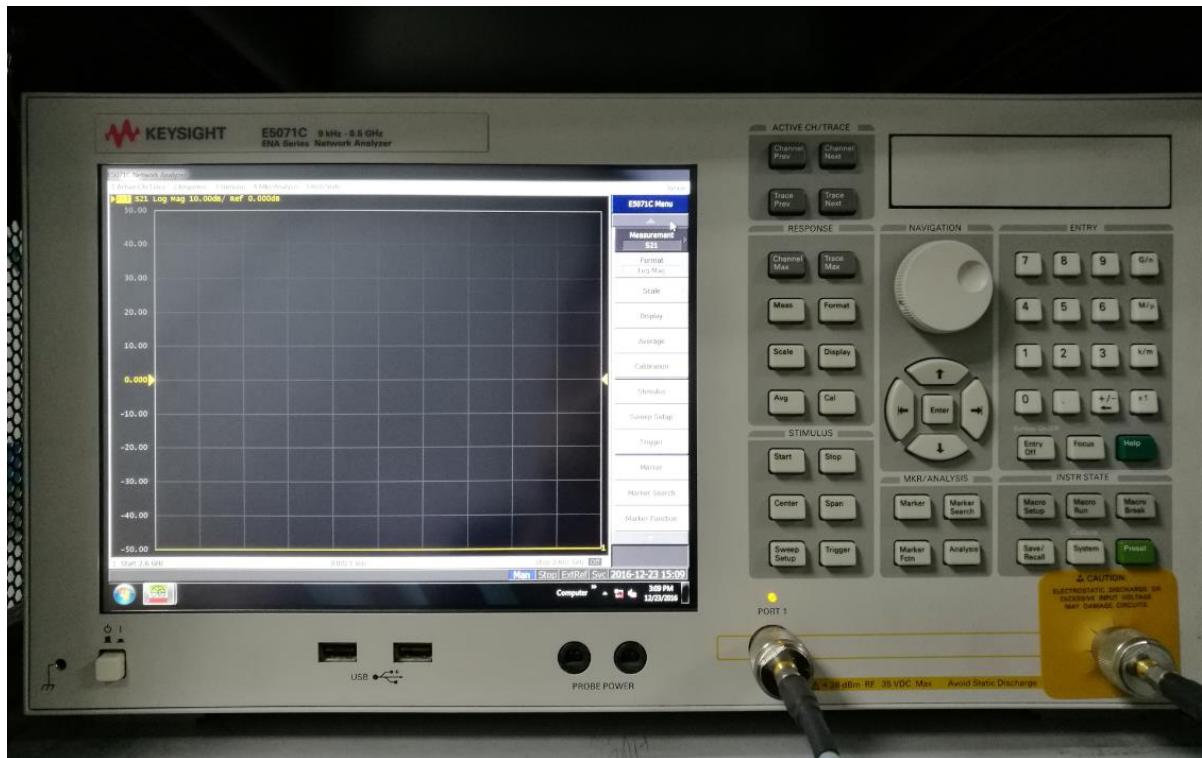


NO.	Frequency
ANT1	2.4GHz-2.5GHz
ANT2	5.15GHz-5.85GHz
ANT3	2.4GHz-2.5GHz
ANT4	5.15GHz-5.85GHz



Return Loss and Isolation

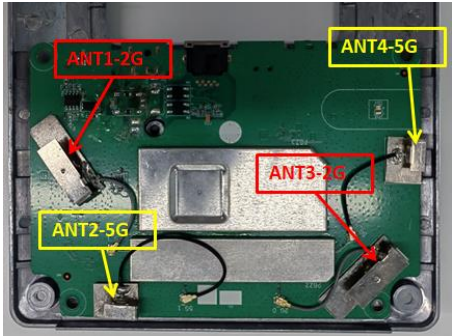
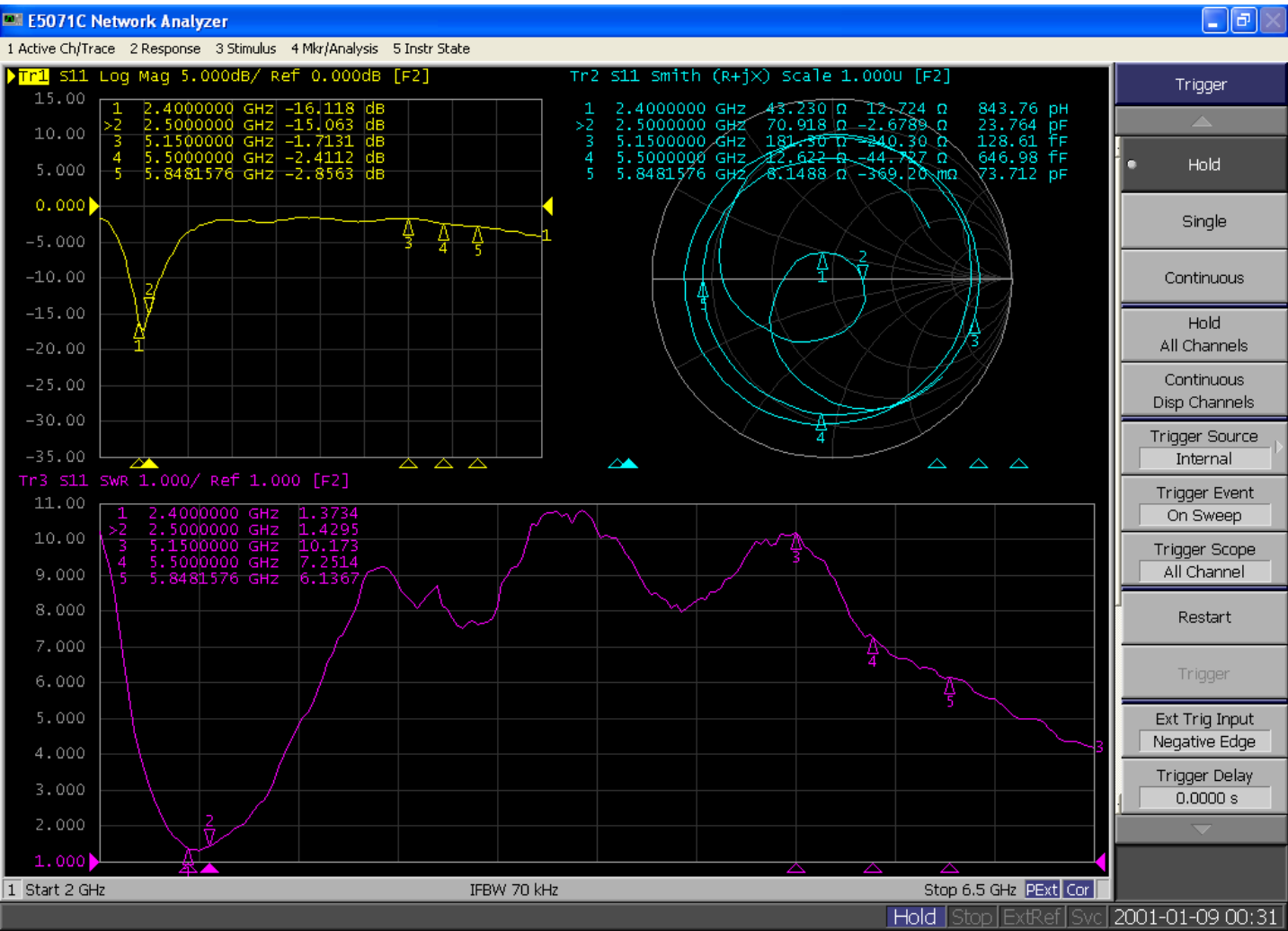
Test Condition



The network Analyzer

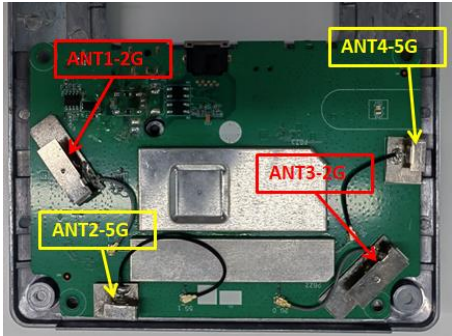
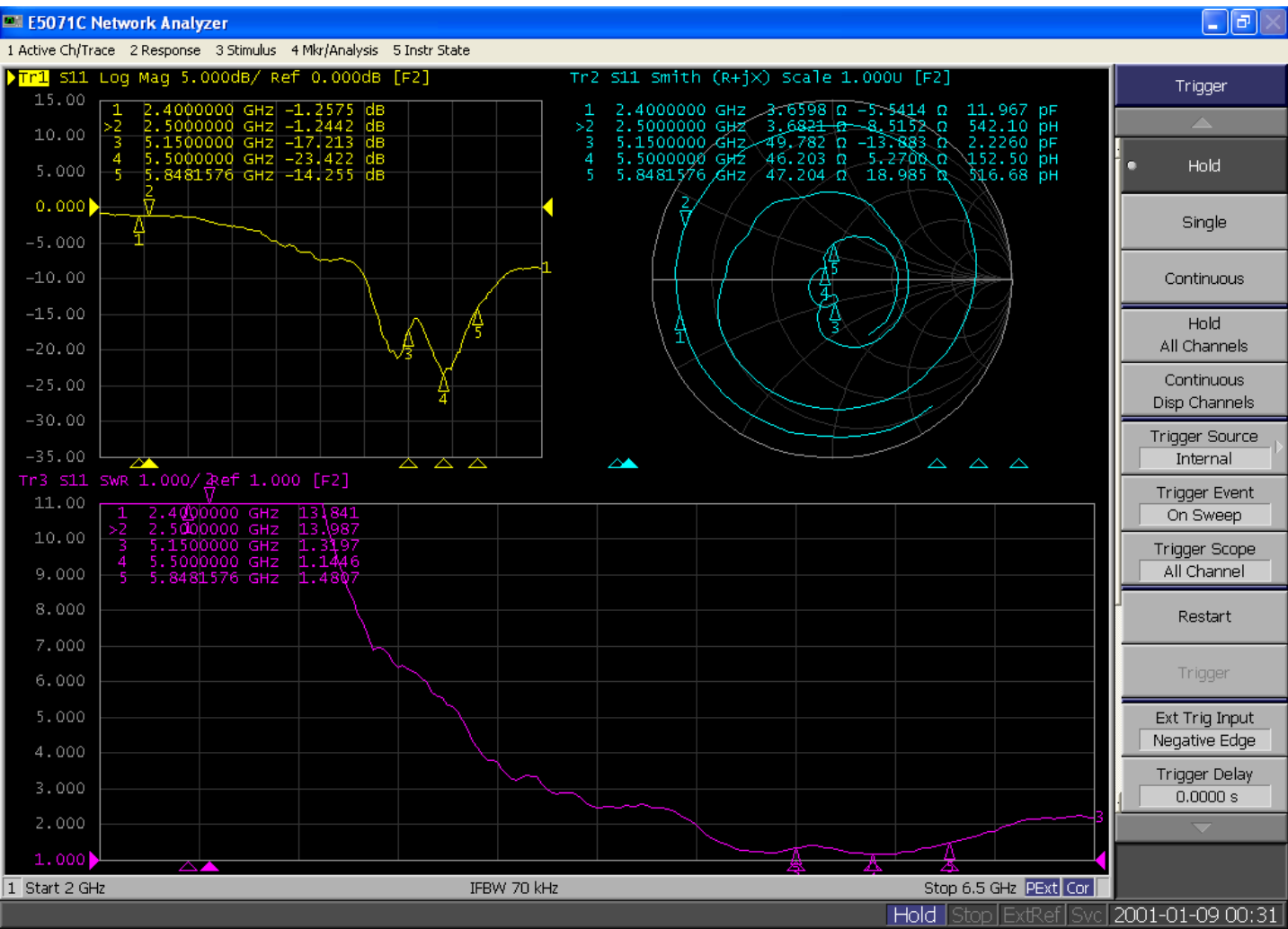
Return Loss

ANT1



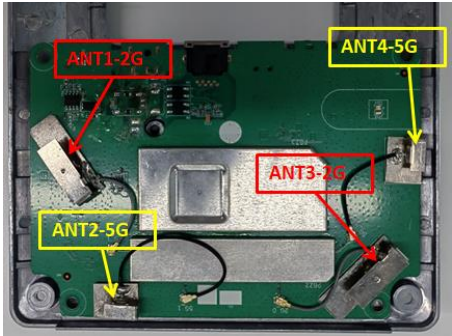
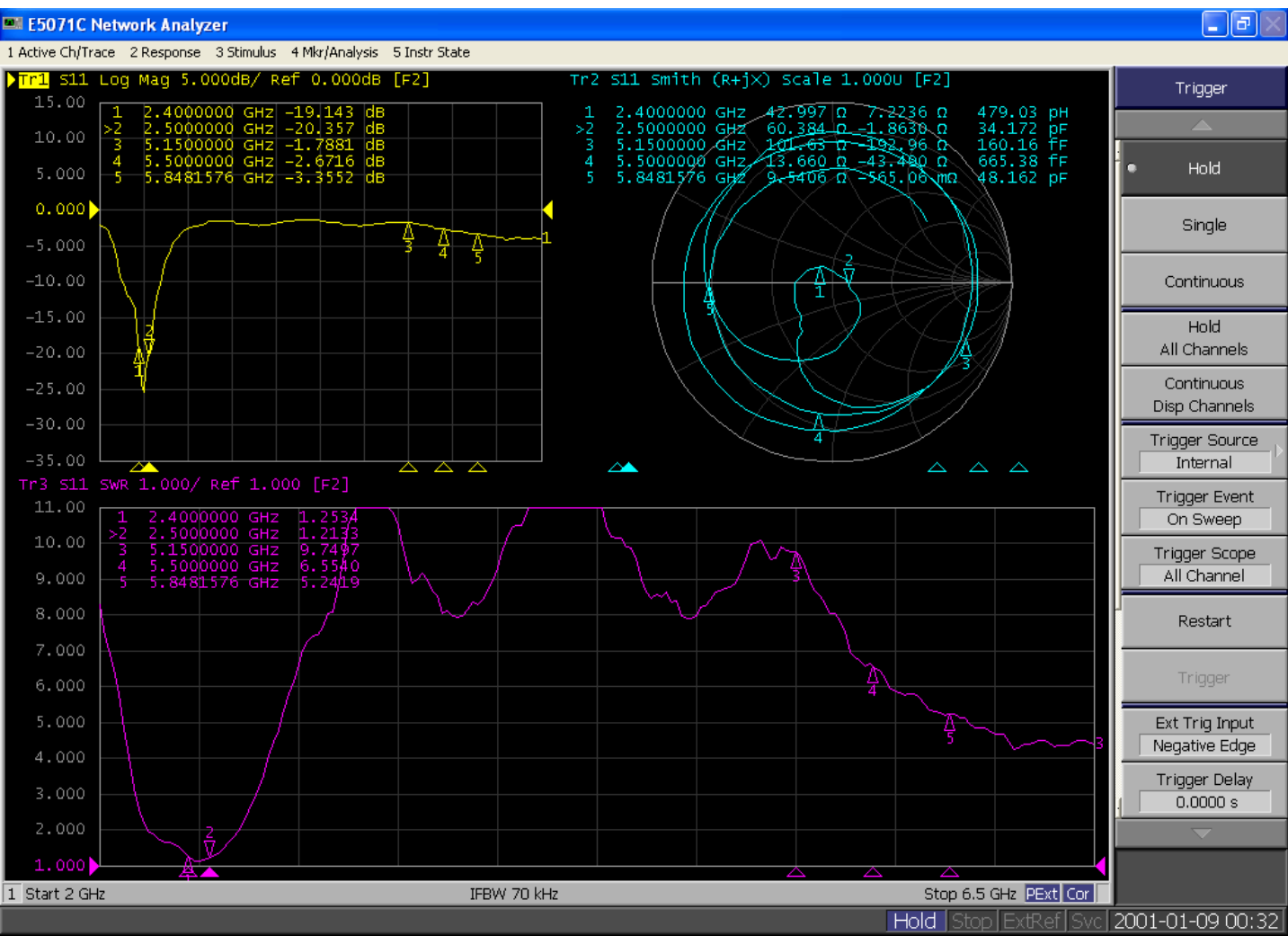
Return Loss

ANT2



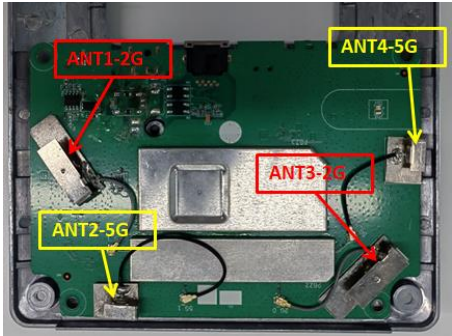
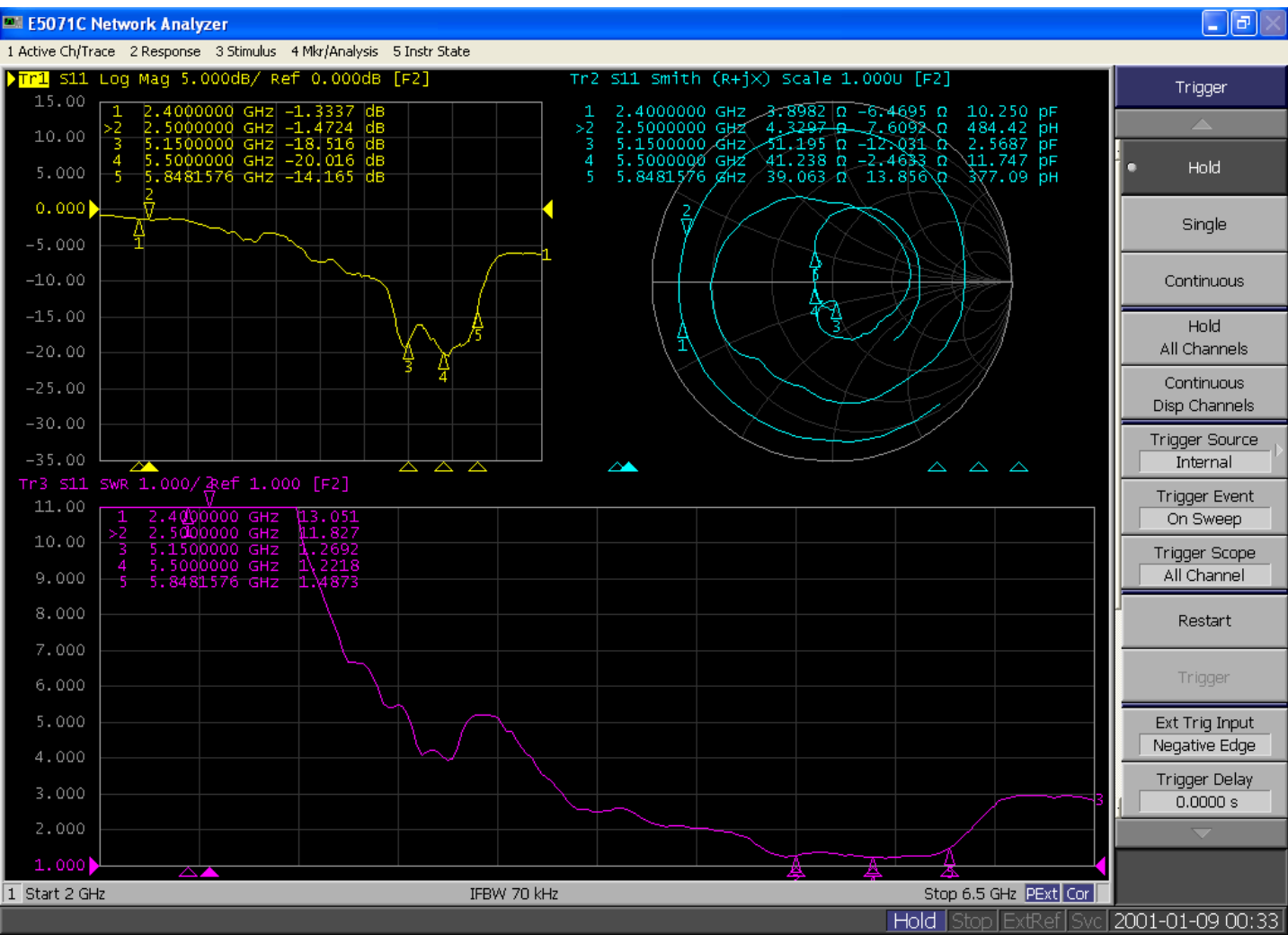
Return Loss

ANT3



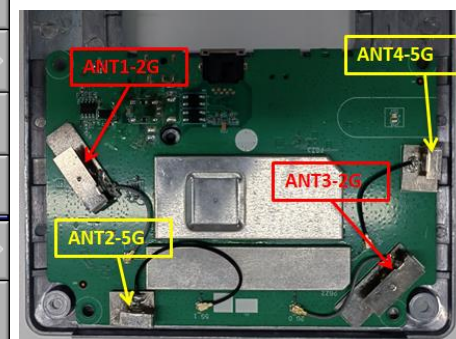
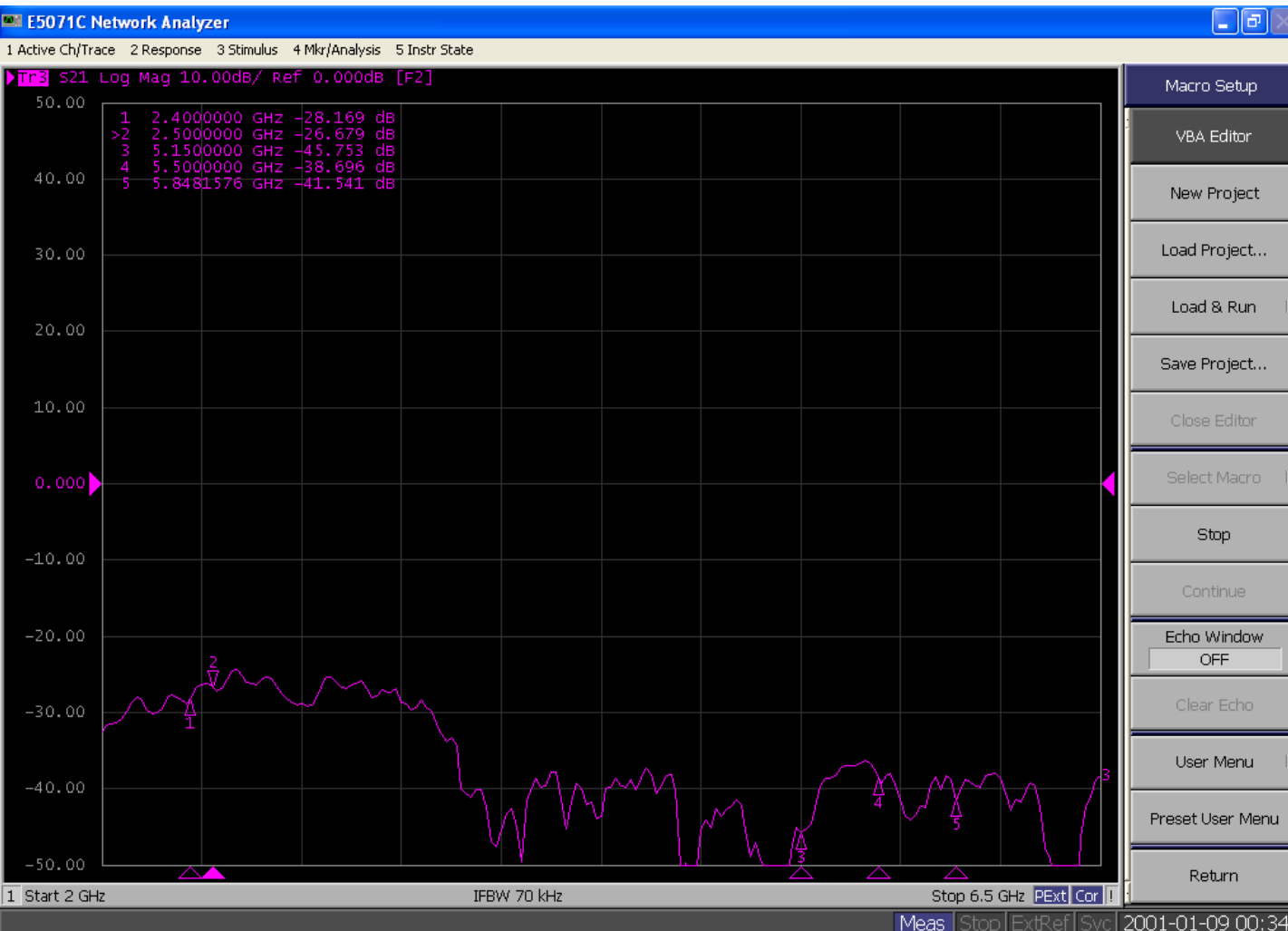
Return Loss

ANT4



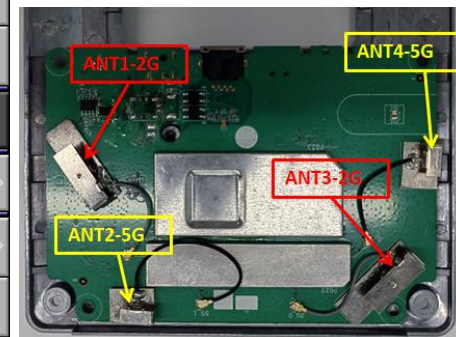
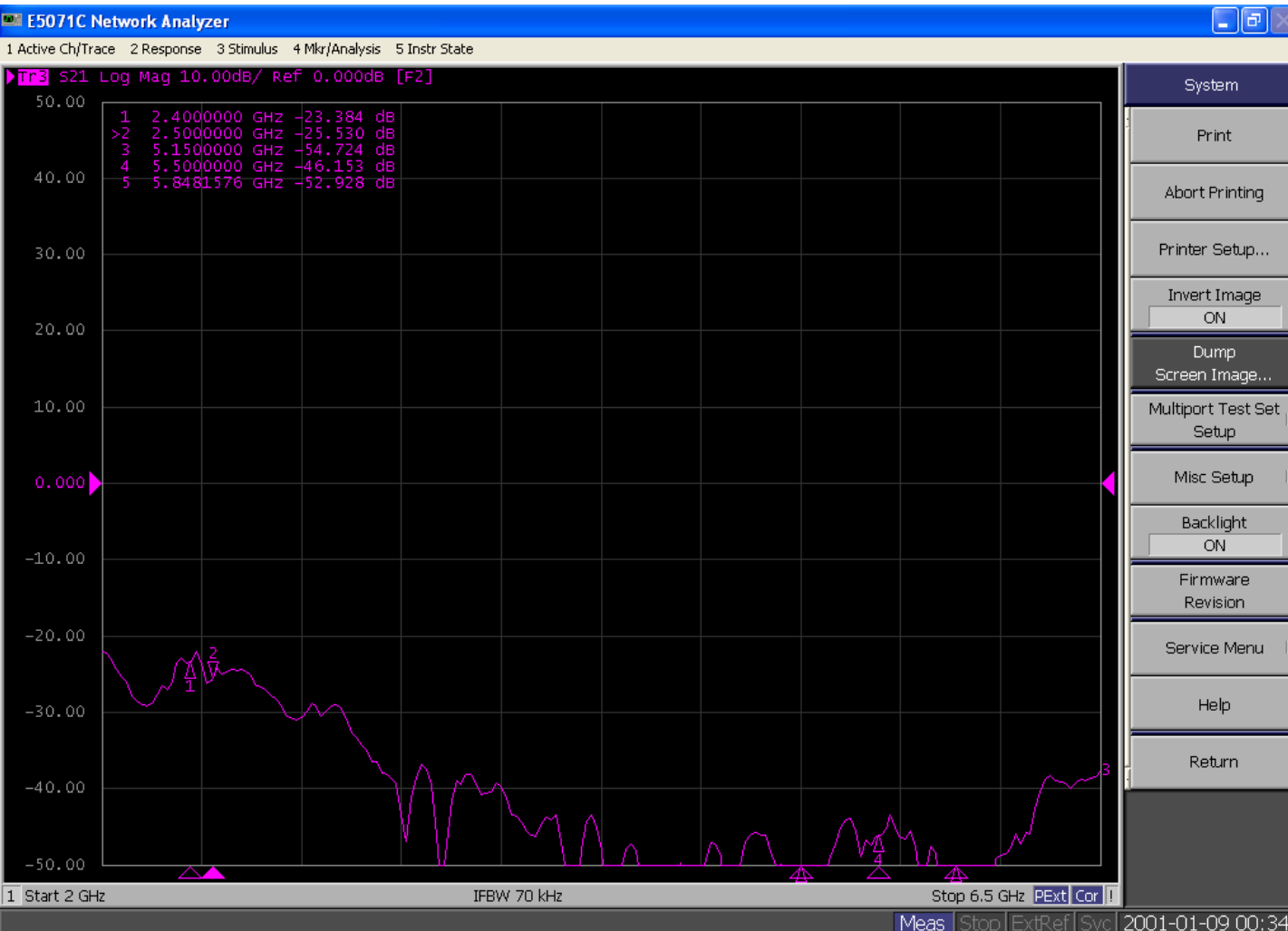
Isolation

ANT1&ANT2



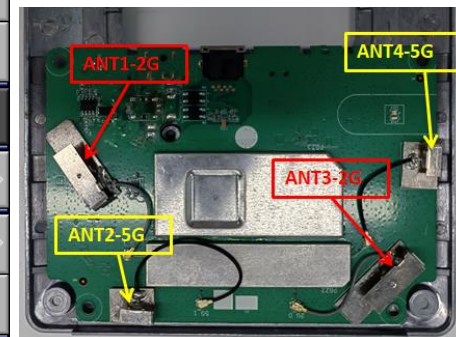
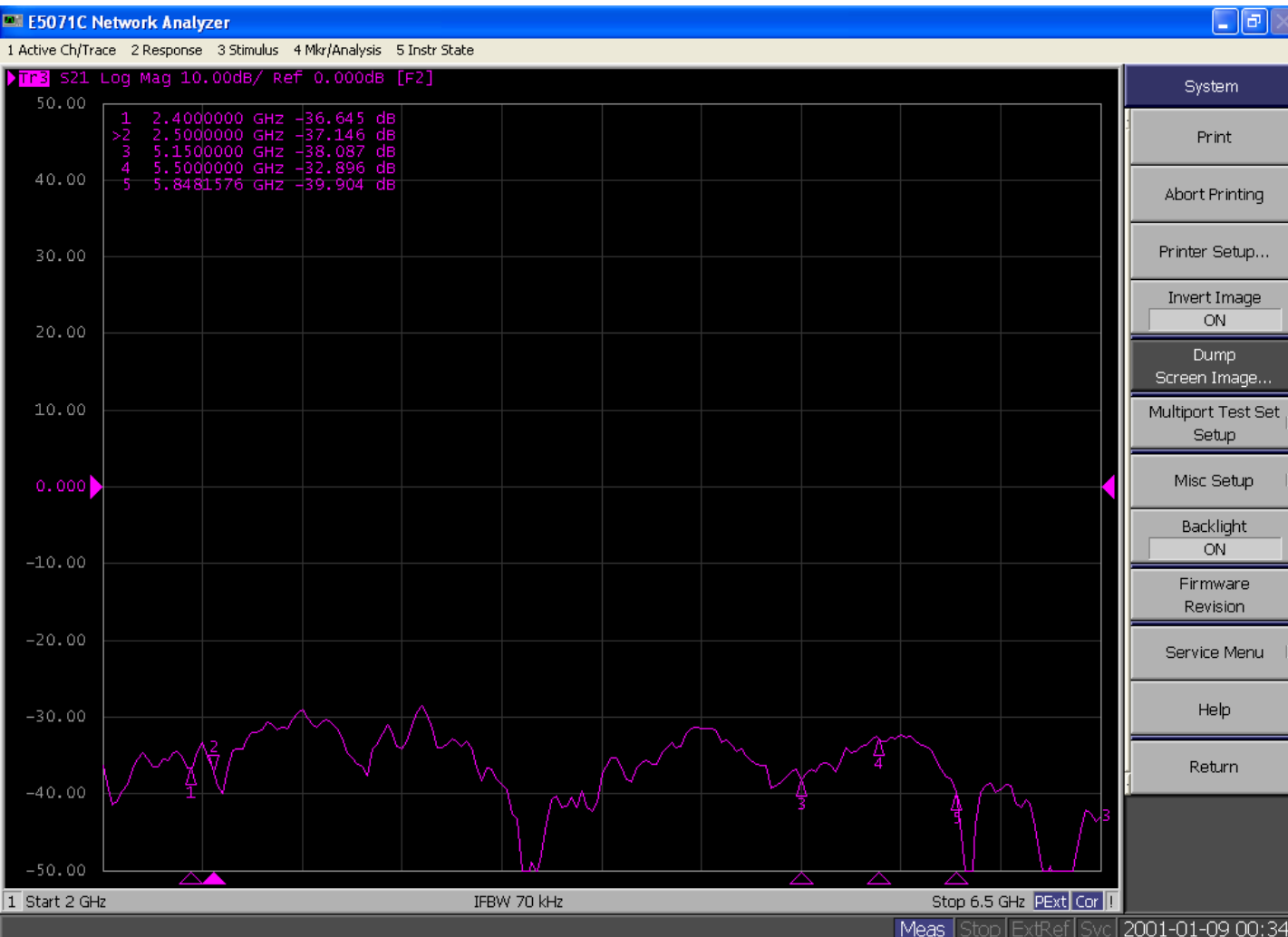
Isolation

ANT1&ANT3



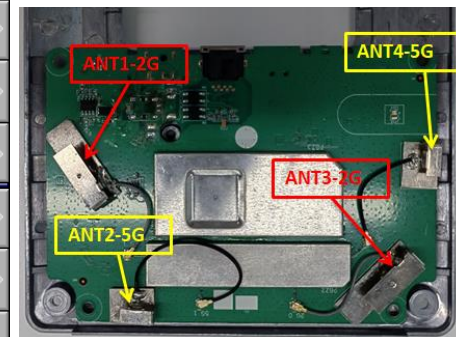
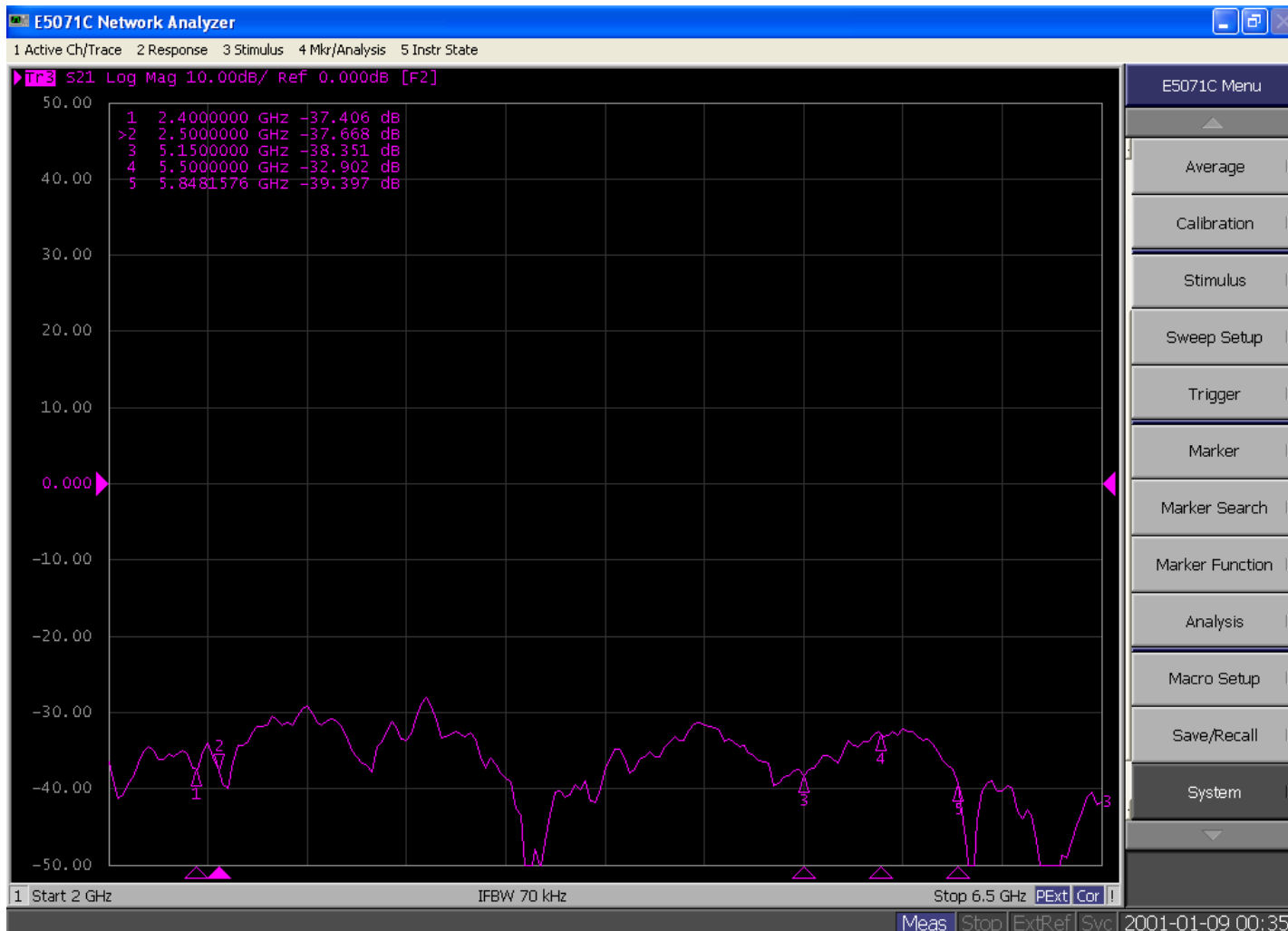
Isolation

ANT1&ANT4



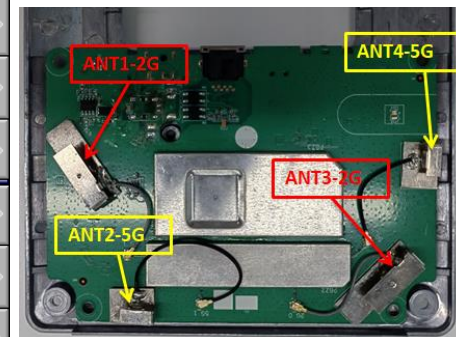
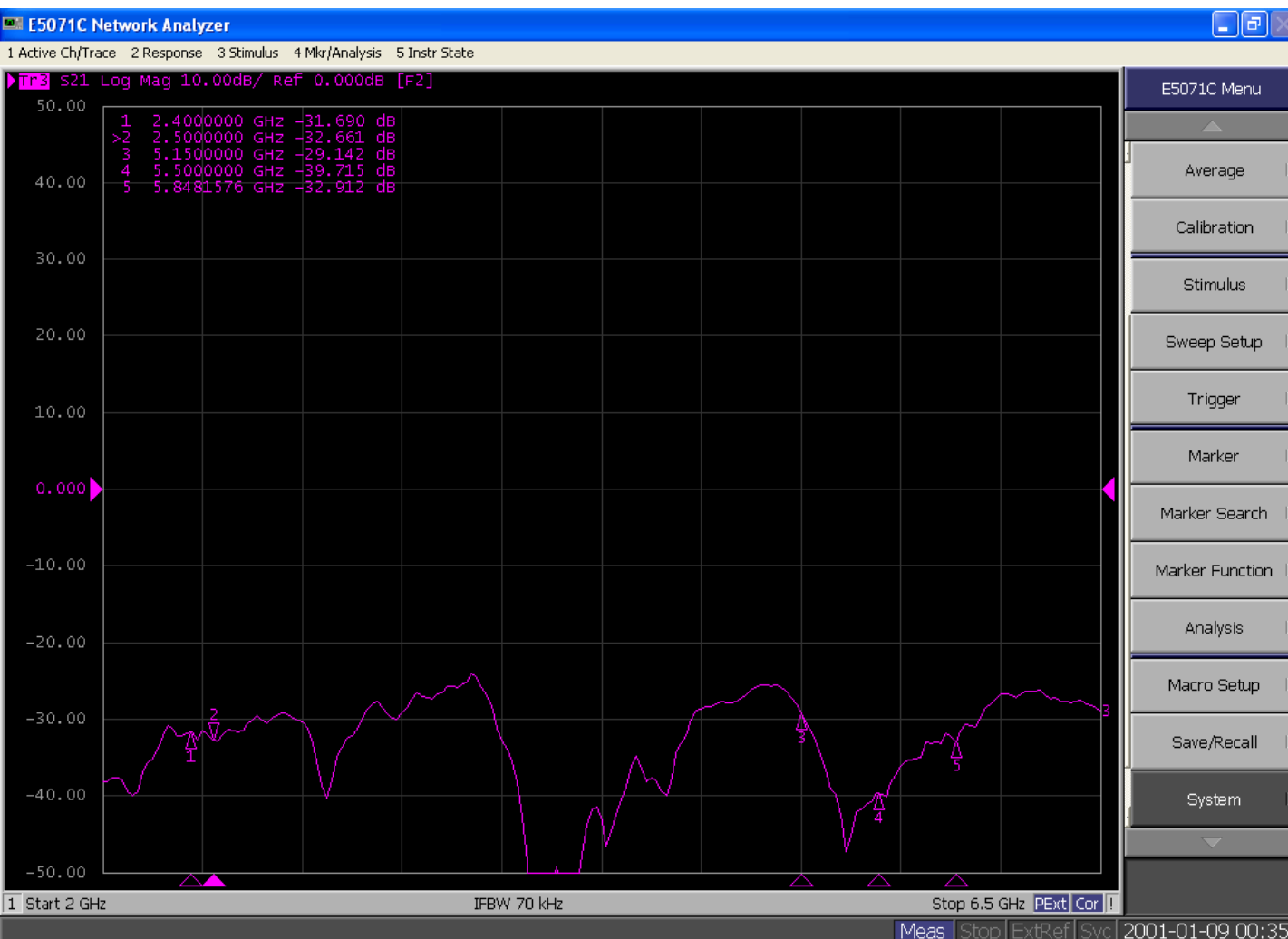
Isolation

ANT2&ANT3



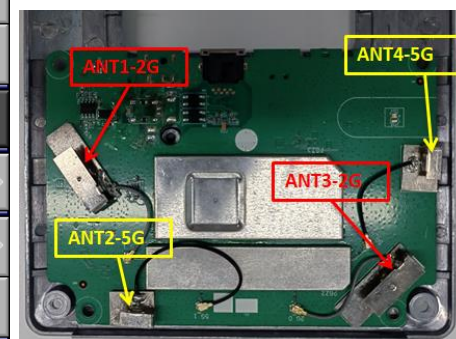
Isolation

ANT2&ANT4



Isolation

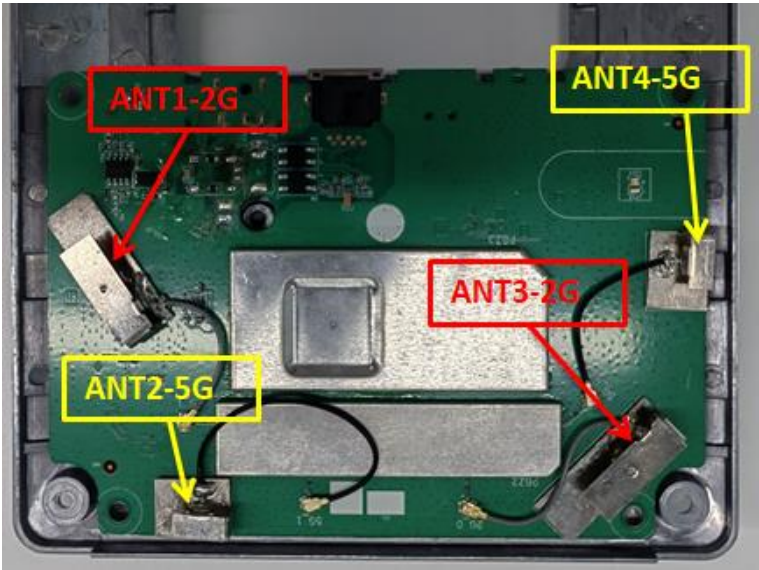
ANT3&ANT4



Return Loss and Isolation

Test results

	Return loss		Isolation	
Frequency (GHz)	2.4-2.5GHz	5.15-5.85GHz	2.4-2.5GHz	5.15-5.85GHz
ANT1	<-15dB	NA	<-23dB	
ANT2	NA	<-14dB		
ANT3	<-19dB	NA		
ANT4	NA	<-14dB		



2D/3D Radiation pattern

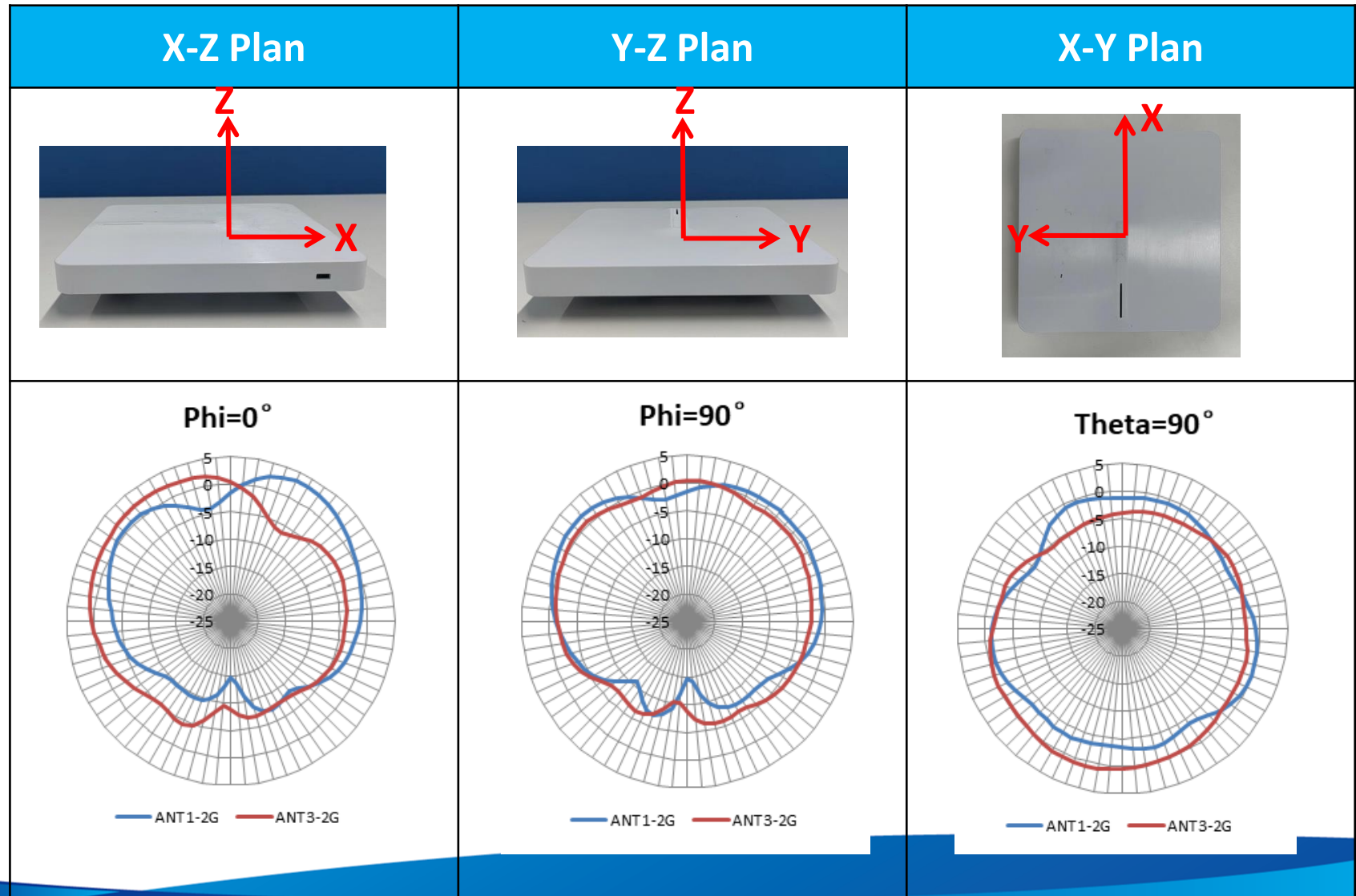
Test Condition



Microwave anechoic chamber

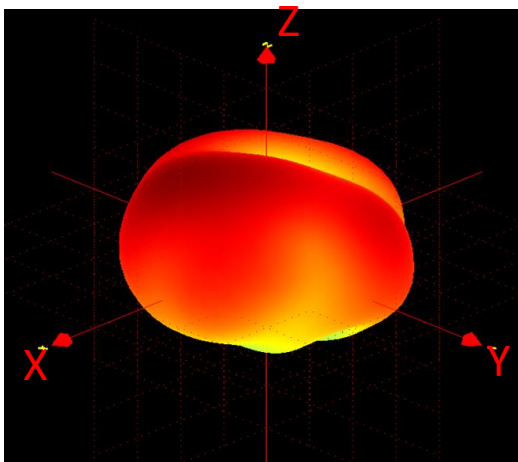
2D Radiation pattern 2.45GHz

ANT1+ANT2

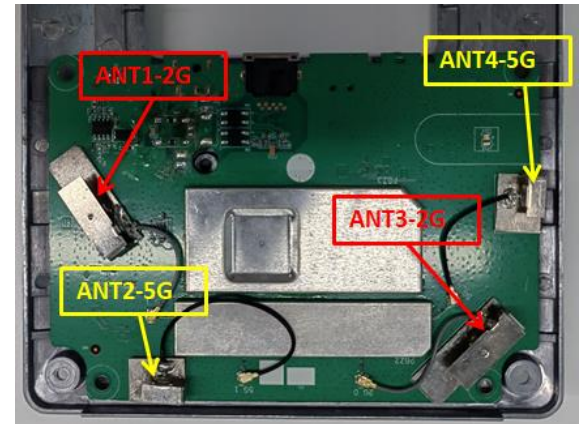
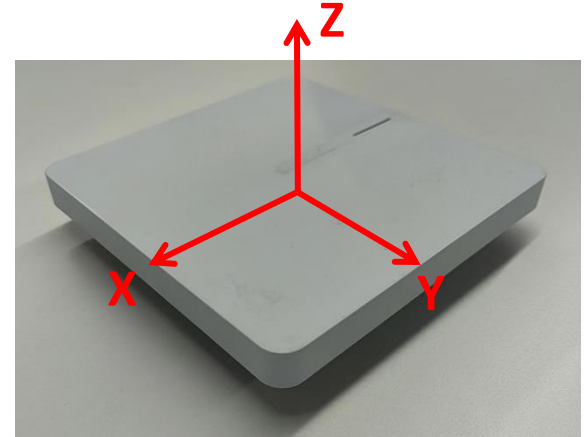
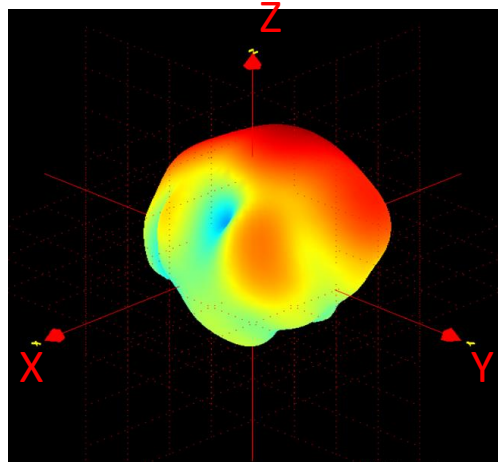


3D Radiation pattern 2.45GHz

ANT1-2G

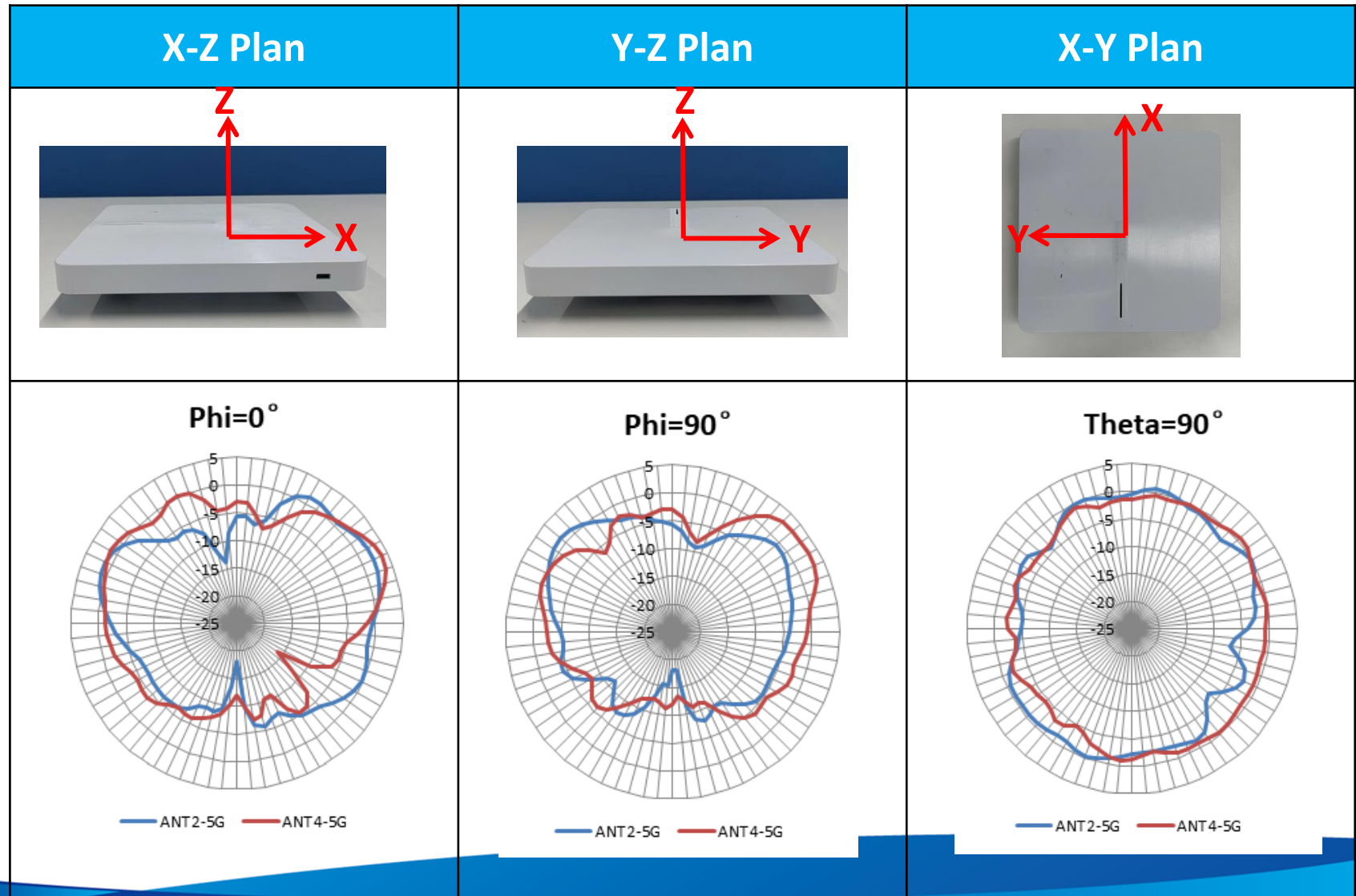


ANT3-2G



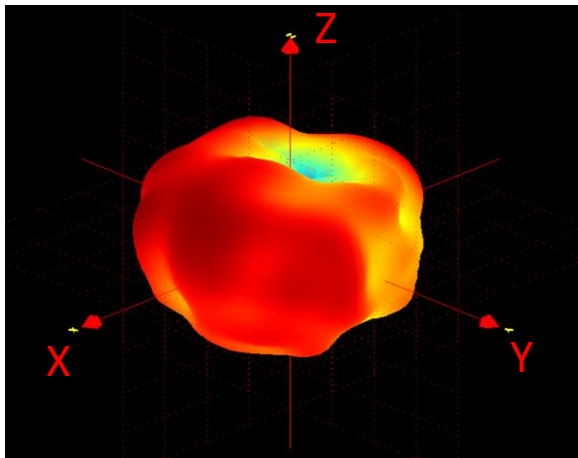
2D Radiation pattern 5GHz

ANT1+ANT2

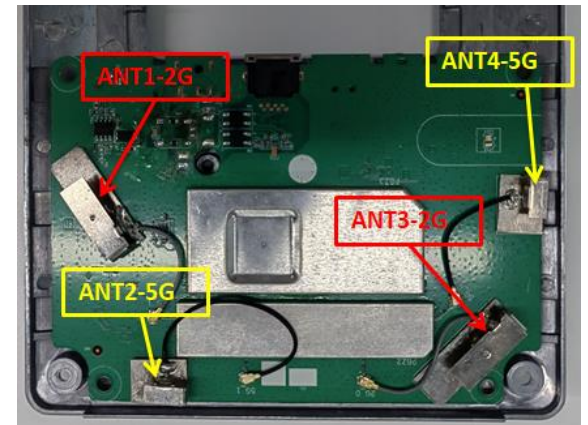
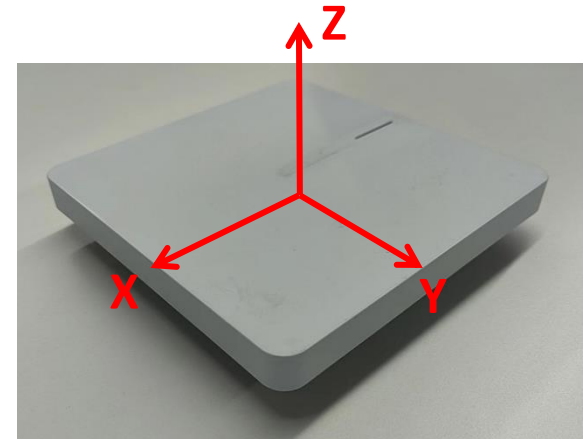
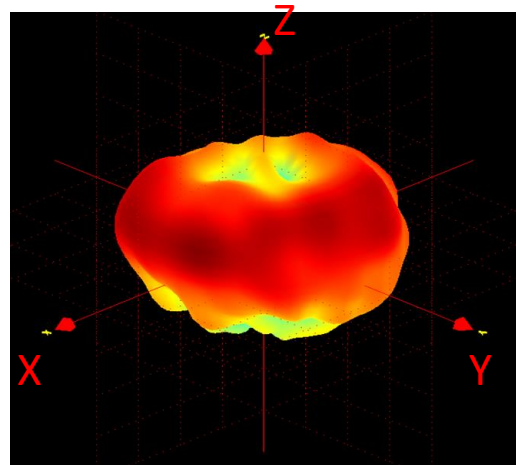


3D Radiation pattern 5GHz

ANT2-5G



ANT4-5G

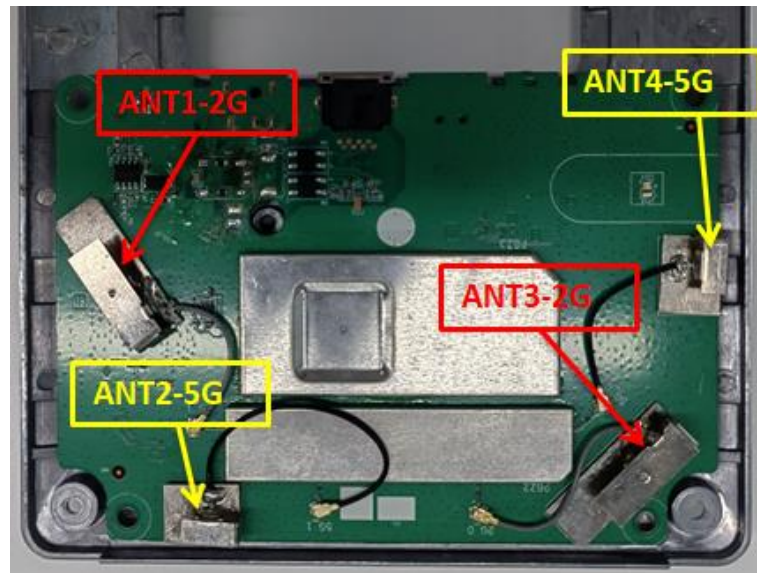


Efficiency and Peak Gain

	Frequency (GHz)	Gain(dB)	Efficiency(%)	Results
ANT1-2G	2.4	3.3	73.5	Pass
	2.5	3.6	75.6	Pass
ANT2-5G	5.15	3.8	72.7	Pass
	5.25	3.6	72.5	Pass
	5.35	3.6	71.8	Pass
	5.5	3.7	72.6	Pass
	5.6	3.9	72.1	Pass
	5.7	4.0	73.4	Pass
	5.85	4.2	73.9	Pass
ANT3-2G	2.4	3.1	73.1	Pass
	2.5	3.3	74.7	Pass
ANT4-5G	5.15	4.4	71.8	Pass
	5.25	4.5	71.7	Pass
	5.35	4.5	72.8	Pass
	5.5	4.7	73.6	Pass
	5.6	4.7	74.1	Pass
	5.7	4.6	75.2	Pass
	5.85	4.8	74.3	Pass

结论:

1. 天线 Return loss: 2G < -15dB, 5G < -14dB;
2. 天线 Isolation < -20dB;
3. 天线增益 (peak gain) : 2G: 3~4dBi, 5G: 3.6~4.8dBi



Thanks!

