

Antenna Assessment Report

HD2156

Report Date: 2022.02.18

Report Version: 1.0

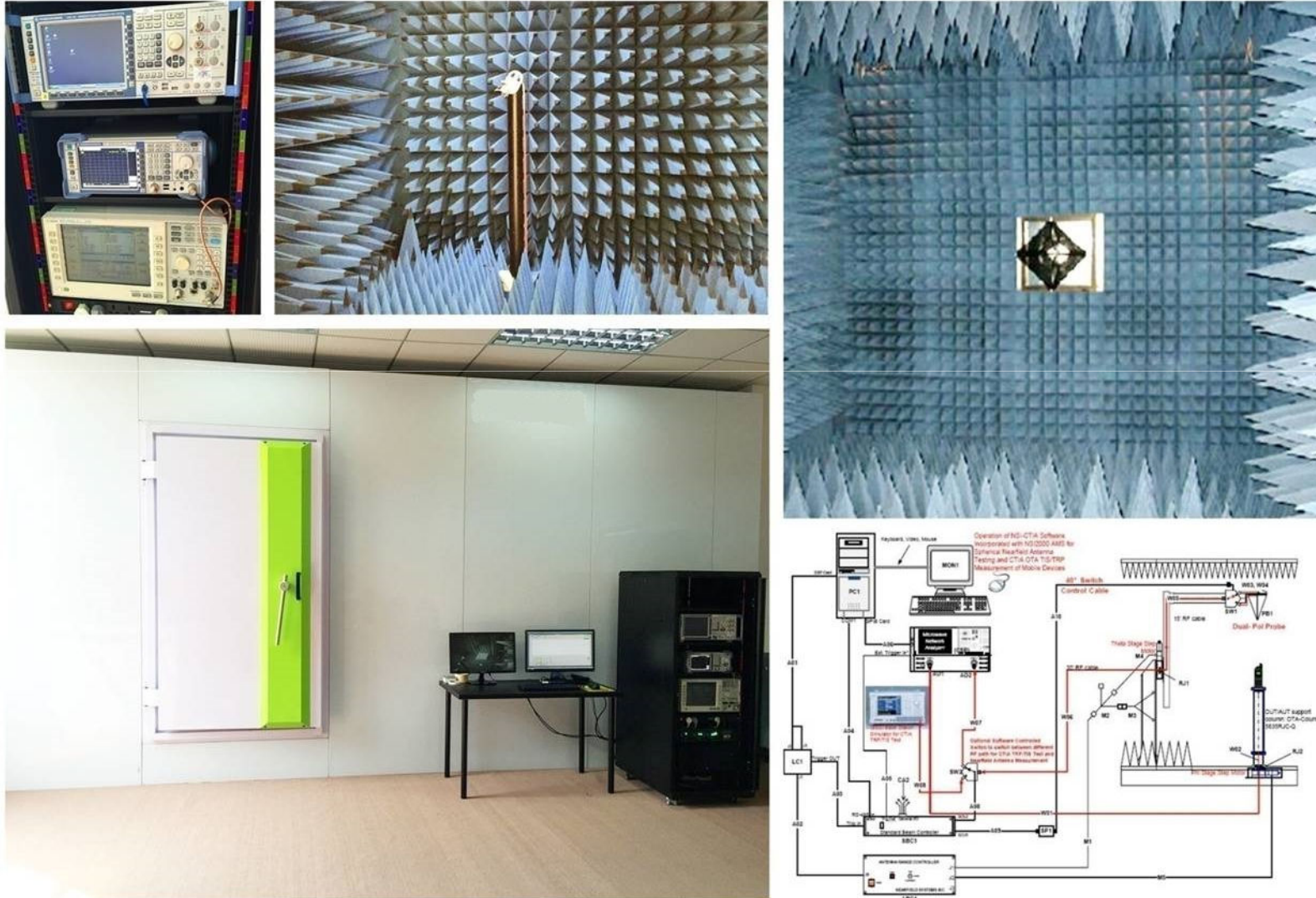
Prepared by: Tower

Approved by:

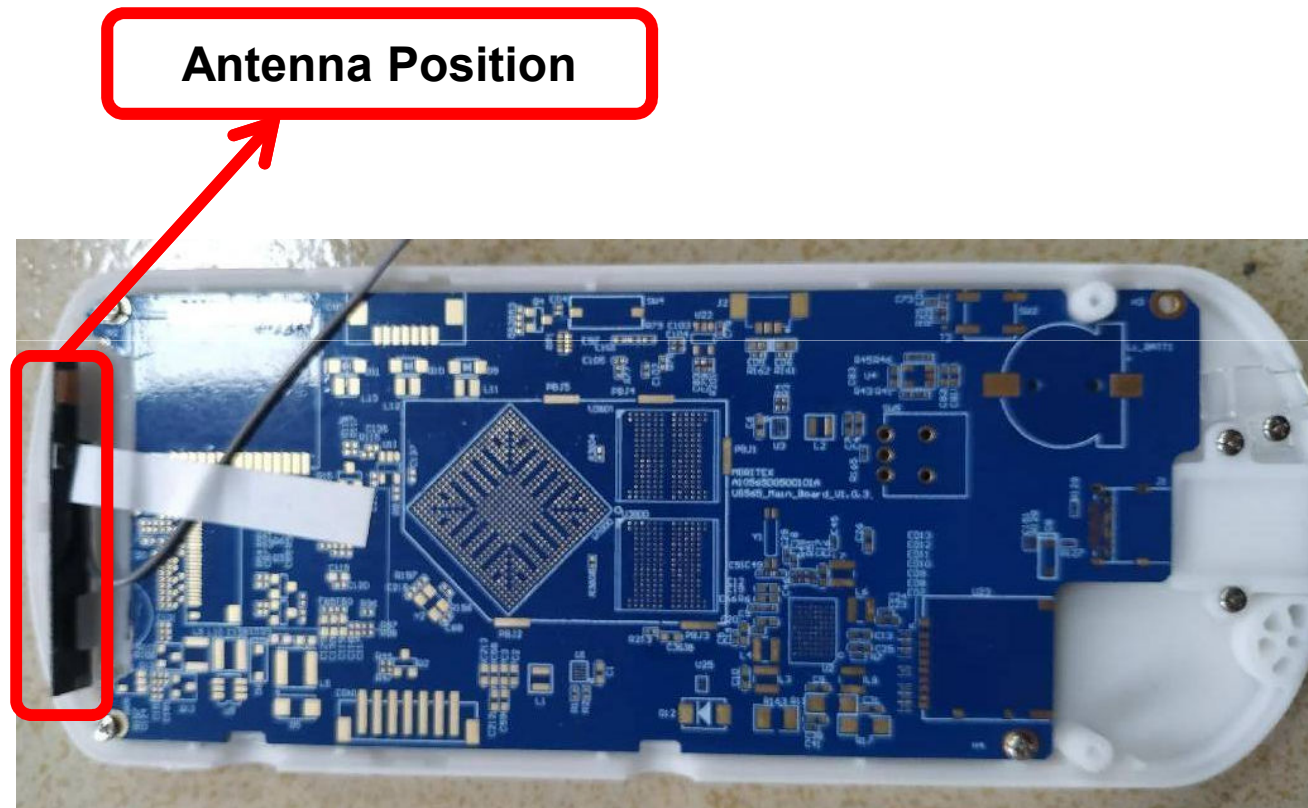
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1. Test Equipment

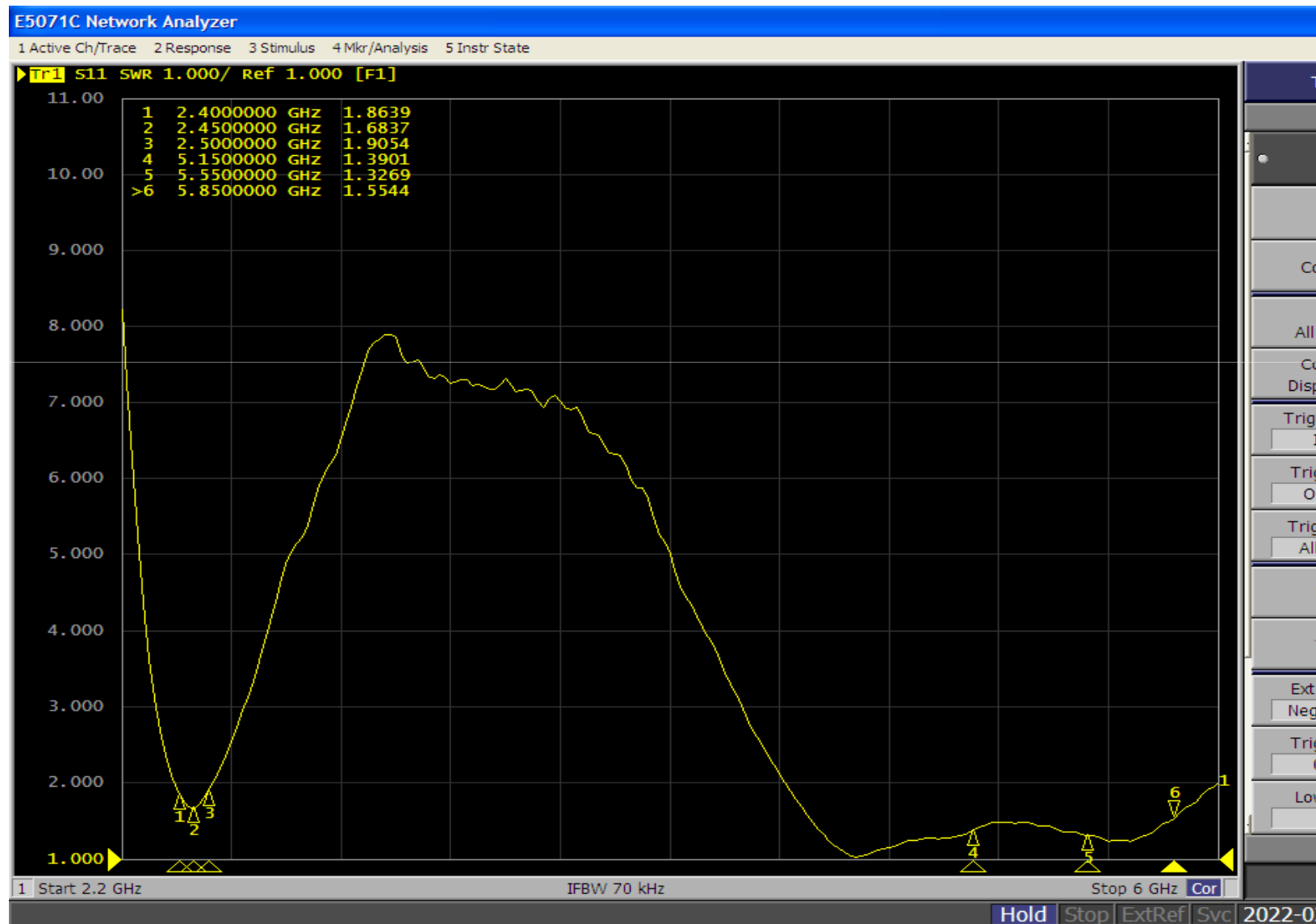


2. DUT Picture



3. Performance

3.1. S11 Parameter



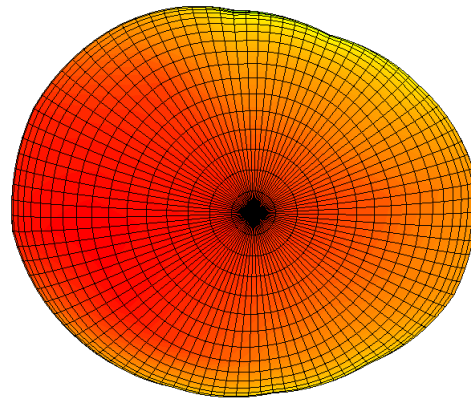
3.2. Gain & Efficiency

Frequency (MHz)	2400	2450	2500
Peak Gain (dBi)	2.69	2.85	2.42
Efficiency (%)	60.3	67.92	61.24

Frequency (MHz)	5150	5550	5850
Peak Gain (dBi)	3.64	4.08	3.3
Efficiency (%)	72.95	73.86	68.35

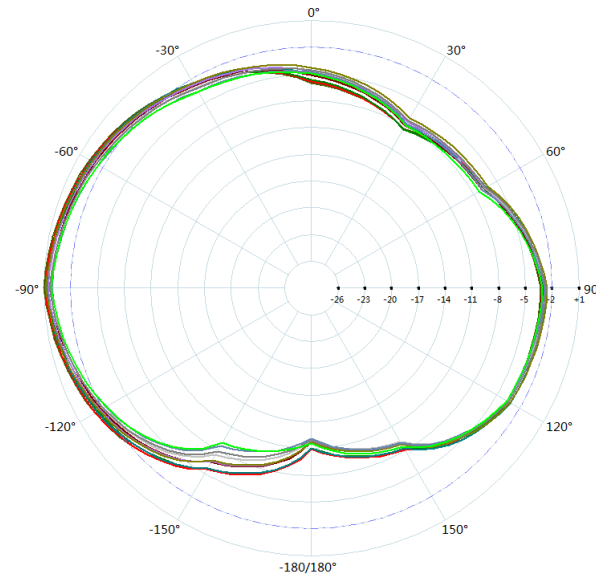
3.2. 2.4GHz Antenna Pattern

3D

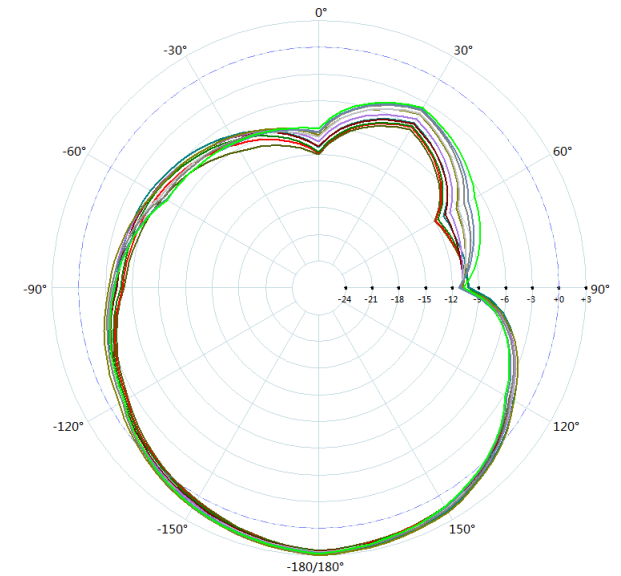


2D

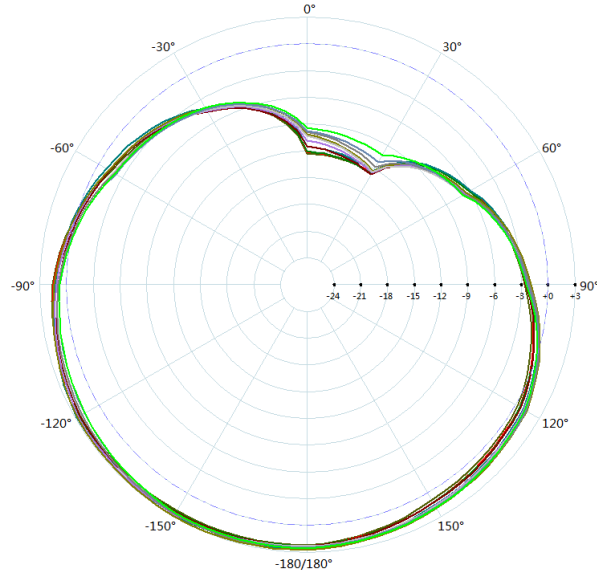
XZ



YZ

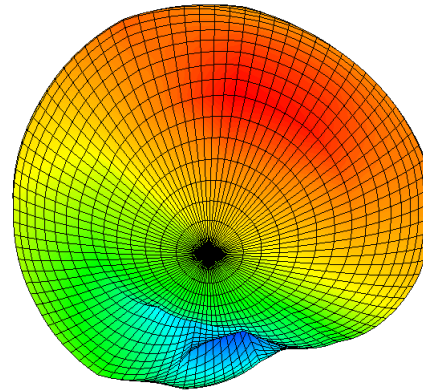


XY

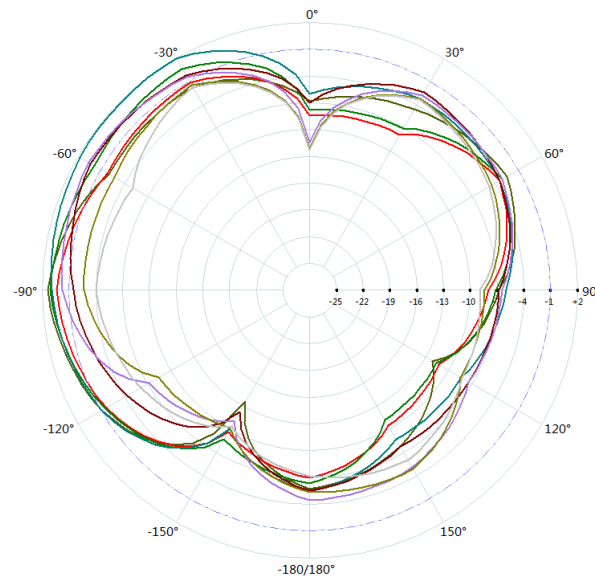


3.2. 5.8GHz Antenna Pattern

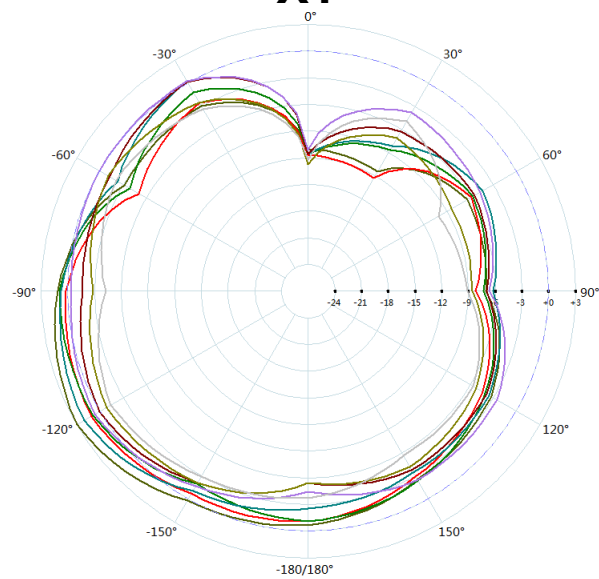
3D



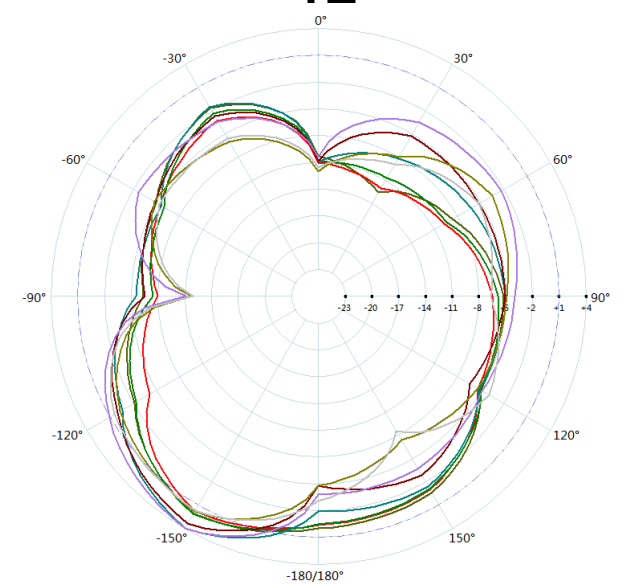
2D
XZ



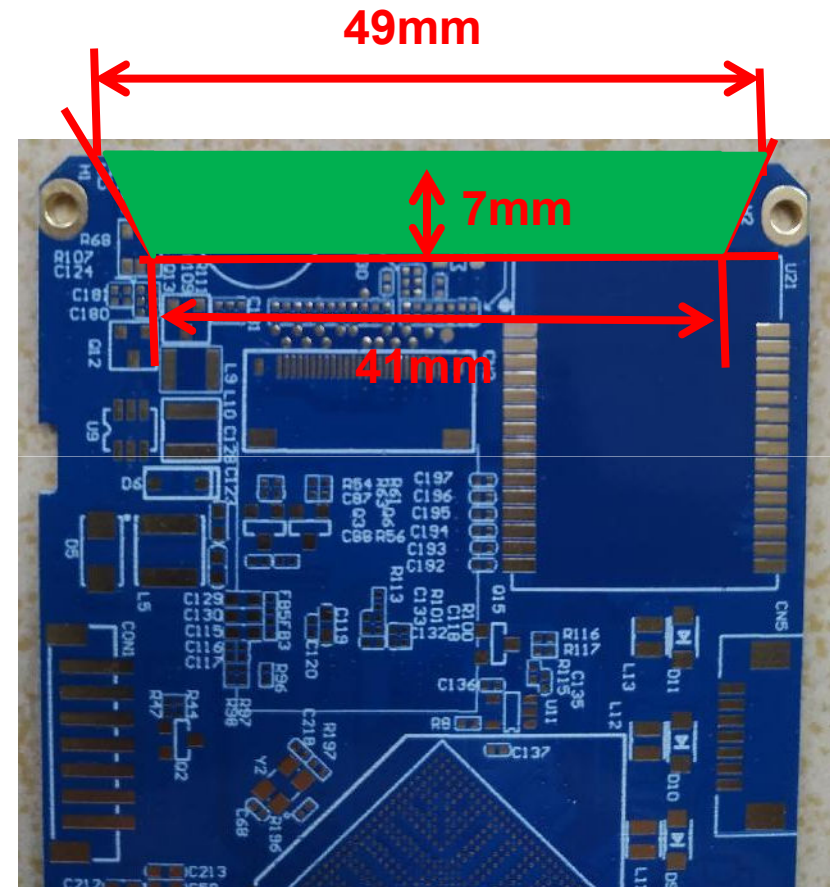
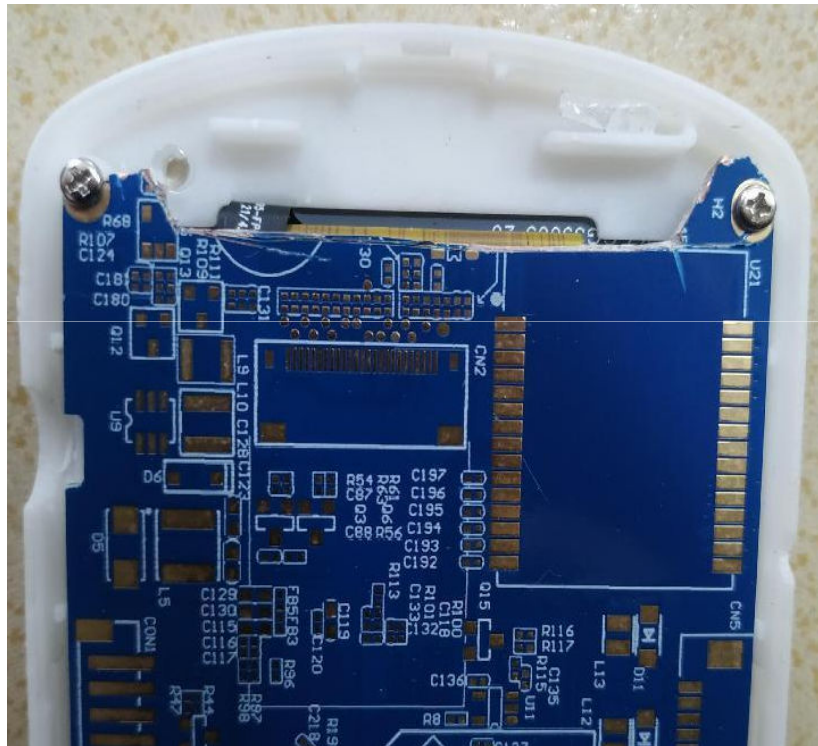
XY



YZ



4. Mainboard Modification Suggestion



1. Pictures

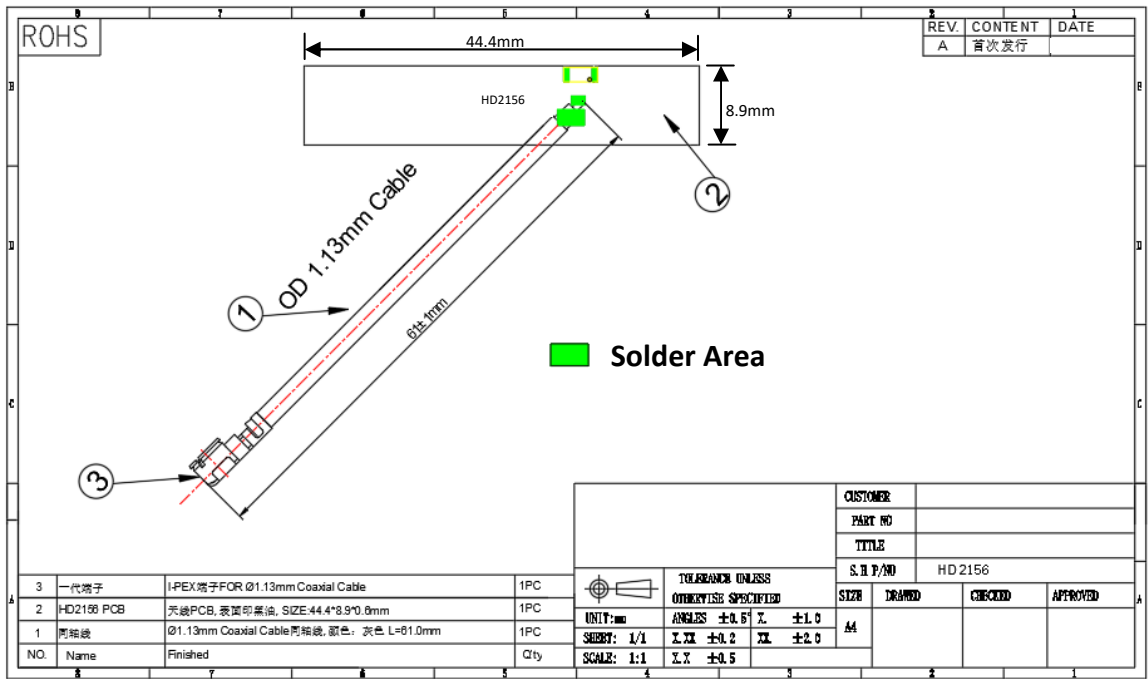
Top View



Bottom View



2. Dimension



3. Specification Description

Electrical Properties	
Frequency	2.400~2.500 GHz 5.150~5.850 GHz
Impedance	50 ohm
Return Loss	< -10 dB
VSWR	< 2.0
GAIN	< 3 dBi @ 2.4G band < 4.5 dBi @ 5G band
Physical Properties	
Antenna Material	Antenna ingredient: PCB+Ceramic
Cable Type	Φ1.13 cable
Working Temp.	-40°C ~ +80 °C
Cable Color	Gray