



Bluetooth Antenna

CTE-BT_Ant

Version: V1.0



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1.Contents

Purpose

This report is to measure the Bluetooth 2.4GHz antenna performance. All measurement data are showed below.

2. Outline

2-1 Product Overview & Dimension

- Chamber test environment

2-2 Antenna Test Result

- Antenna Summary Table
- Antenna S-parameter
- Antenna Axial Ratio, Gain & Efficiency Diagram
- Antenna 3D Circular Radiation Pattern
- Antenna 2D Circular Radiation Pattern

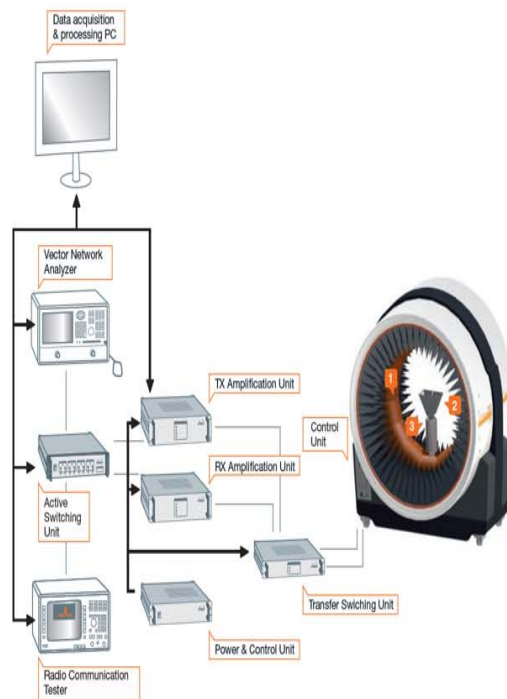
2-3 General Data

- Product name : CTE-BT_Ant
- Operation Frequency: 2400 ~2500 MHz
- Peak Gain: 5.3dBi ●Average Gain:-1.9dBi
- Impedance with matching :50Ω
- Antenna type : PIFA Antenna.

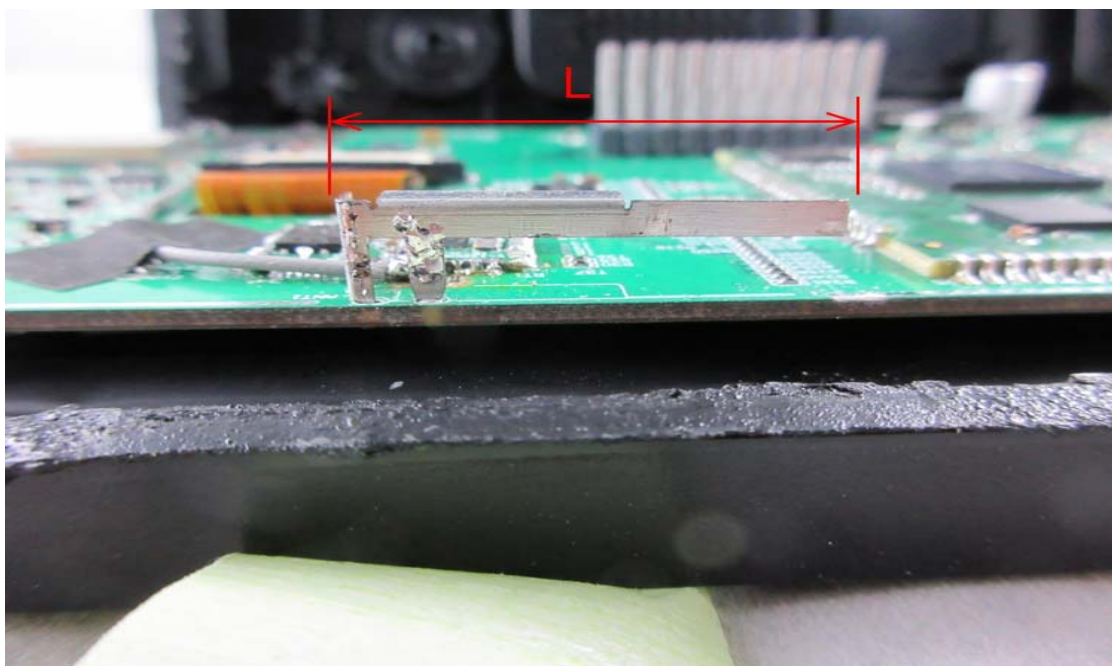
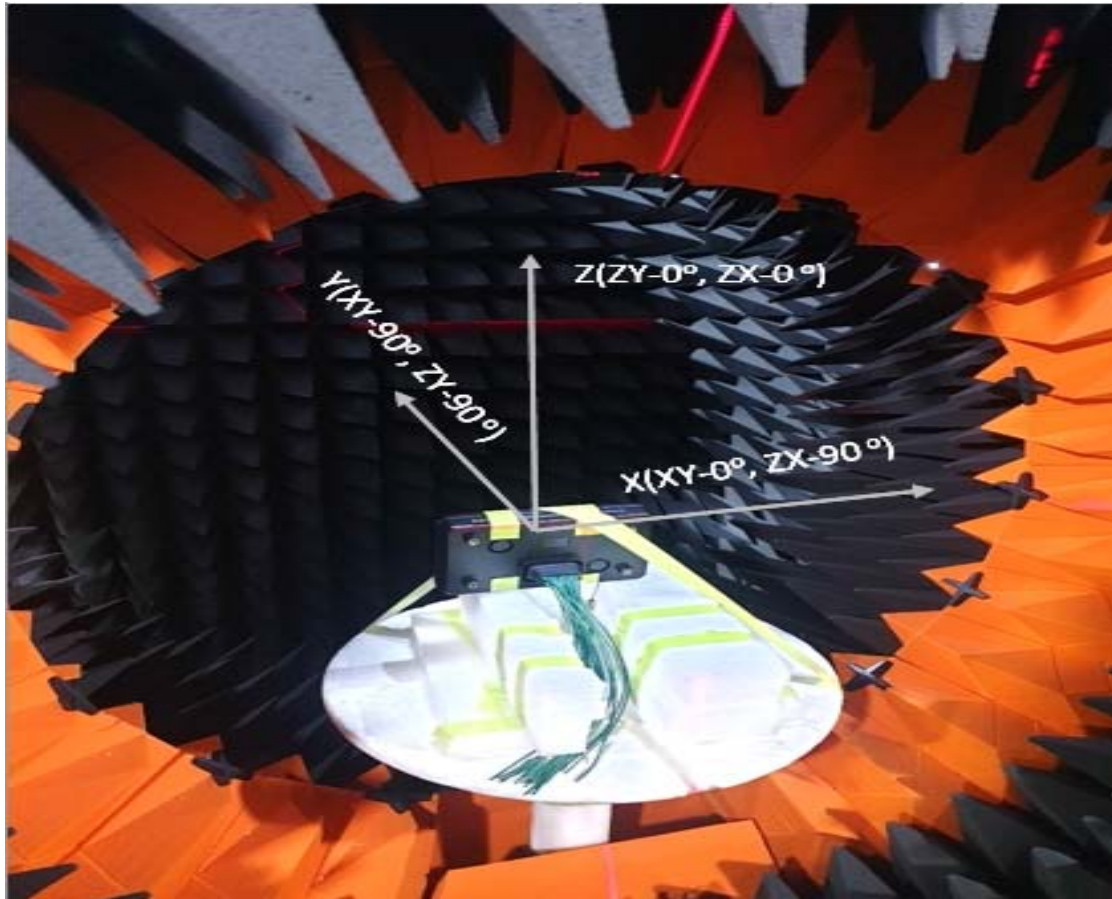
3. Shielded Anechoic Chamber

MVG SATIMO STRLAB®

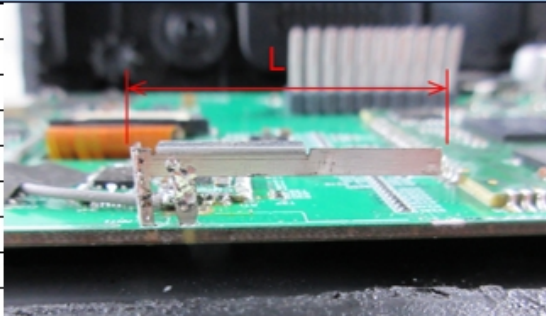
- ✓ Antenna Test System: MVG Satimo StarLab 6 GHz
- ✓ Chamber Size: L3.0xW3.0xH2.8mm
- ✓ Operation Frequency: 650 MHz to 6 GHz



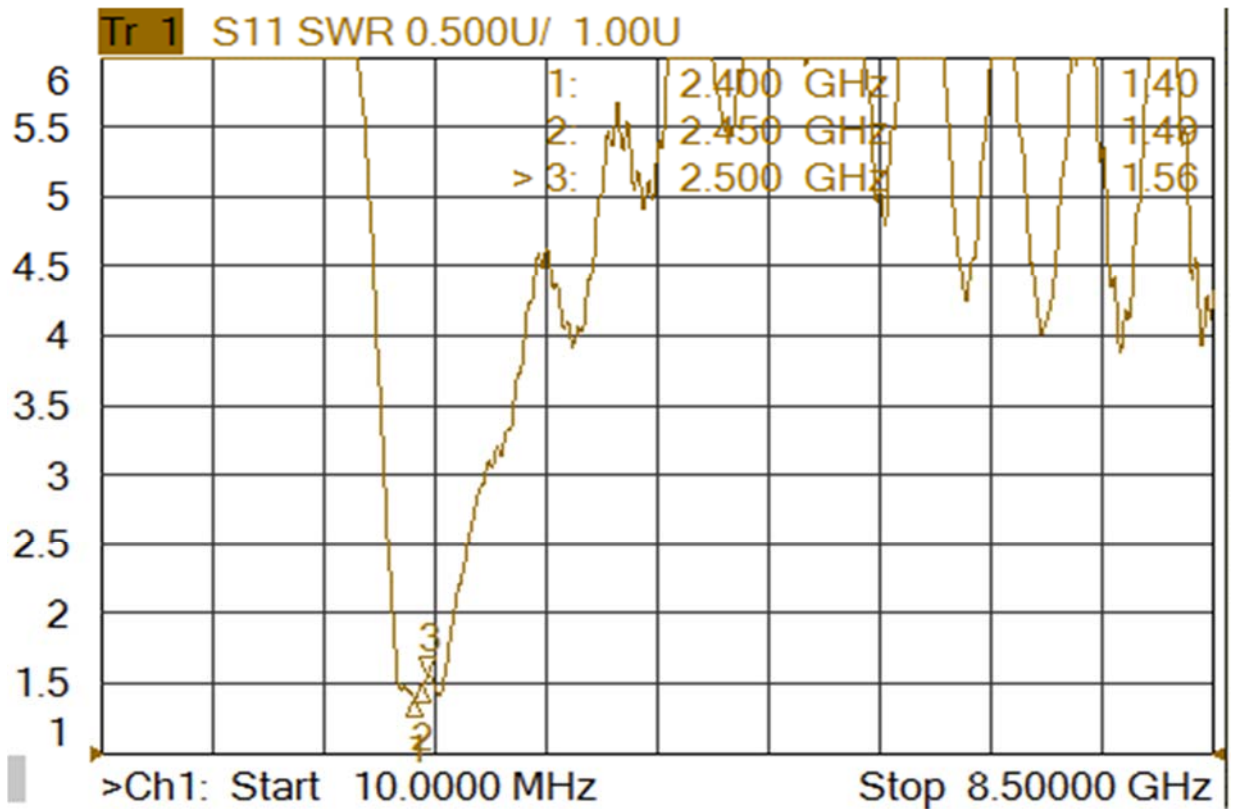
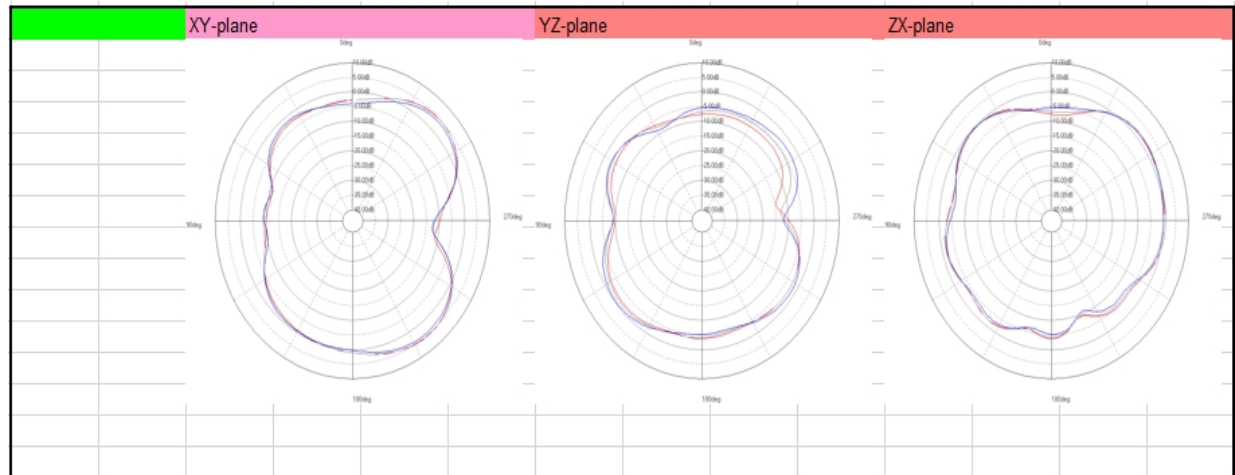
4. Overview & Antenna Information



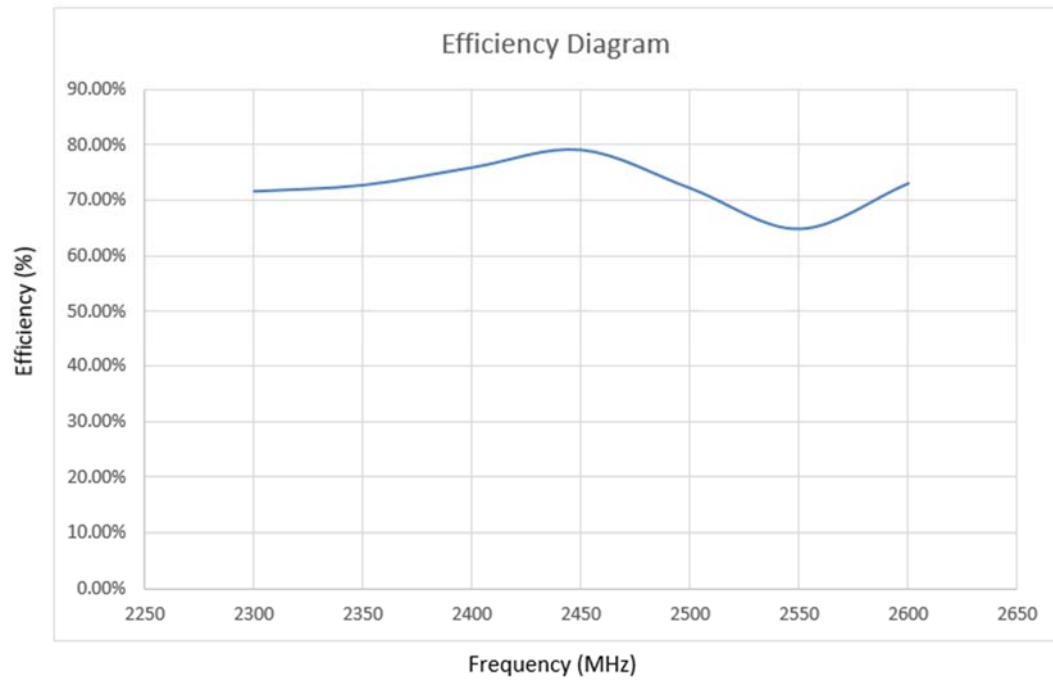
5.Summary Table

Discription	Stamping PIFA @2400~2500 MHz								
Chamber:	GTT-SATIMO STARLAB								
Scanning:	2X								
Note:	Cable -	D1.13mm L150mm							
	Connector	HRS							
With D1.13mm L150mm Cable (Cable Loss=0.45 dB)									
Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	YZ-plane	YZ-plane	ZX-plane
2300	65%	-1.9	4.6	-0.7	-3.6	-3.5	3.6	1.1	0.8
2350	66%	-1.8	5.4	-1.1	-5.6	-2.9	4.9	-1.6	1.3
2400	69%	-1.6	5.3	-1.1	-5.5	-2.6	4.9	-2.1	1.7
2450	71%	-1.5	5.3	-0.9	-4.9	-2.5	5.0	-1.6	1.9
2500	65%	-1.9	4.1	-1.5	-4.3	-2.9	4.0	-0.4	1.4
2550	59%	-2.3	3.4	-2.1	-3.8	-3.6	3.3	0.0	1.2
2600	66%	-1.8	4.6	-2.0	-5.2	-2.6	4.6	-1.6	1.8
Without D1.13mm L150mm Cable									
Frequency (MHz)	3D			Avg. Gain			Peak Gain		
	Efficiency	Avg. Gain	Peak Gain	XY-plane	YZ-plane	YZ-plane	YZ-plane	YZ-plane	ZX-plane
2300	72%	-1.4	5.0	-0.2	-3.1	-3.1	4.0	1.5	1.2
2350	73%	-1.4	5.8	-0.6	-5.1	-2.5	5.4	-1.1	1.8
2400	76%	-1.2	5.7	-0.6	-5.1	-2.1	5.4	-1.7	2.1
2450	79%	-1.0	5.7	-0.5	-4.5	-2.0	5.5	-1.1	2.3
2500	72%	-1.4	4.6	-1.0	-3.9	-2.5	4.5	0.0	1.8
2550	65%	-1.9	3.8	-1.6	-3.4	-3.1	3.7	0.4	1.6
2600	73%	-1.4	5.1	-1.6	-4.7	-2.1	5.0	-1.1	2.3

6. Antenna S-parameter



7. Efficiency Diagram



8. 3D Circular Polarization Gain Pattern

