

TW-4000s Antenna Test Report

Customer	SB&S
Project	TW-4000s
Antenna Revision	A1
Product Description	LDS
Product No	
DATE	2021. 11. 16

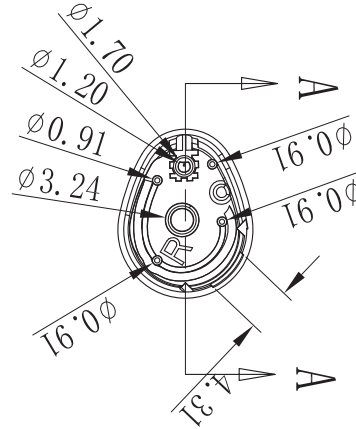
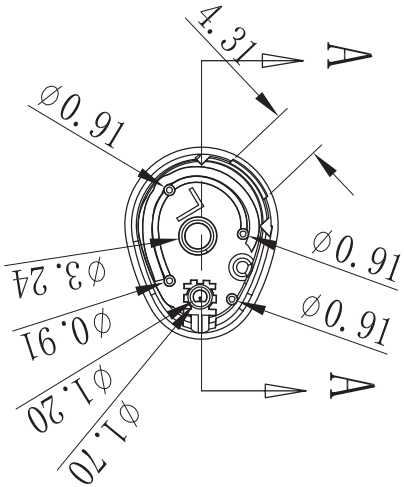
Product Overview & Dimension

Front



Mechanical Specifications

No	Item	Spec.	Re mark
1	Dimensions (LxWxH)	15.9 *8.6 *1.1mm	
2	Unit Weight	typ. 2 mg	
3	Operating Temperature	-35 ~ +85 °C	



Purpose

This report is to measure the performance of BT antenna for TW-4000s. The antenna operating frequency at 2.4~2.5GHz, All test data are showed as below.

Content

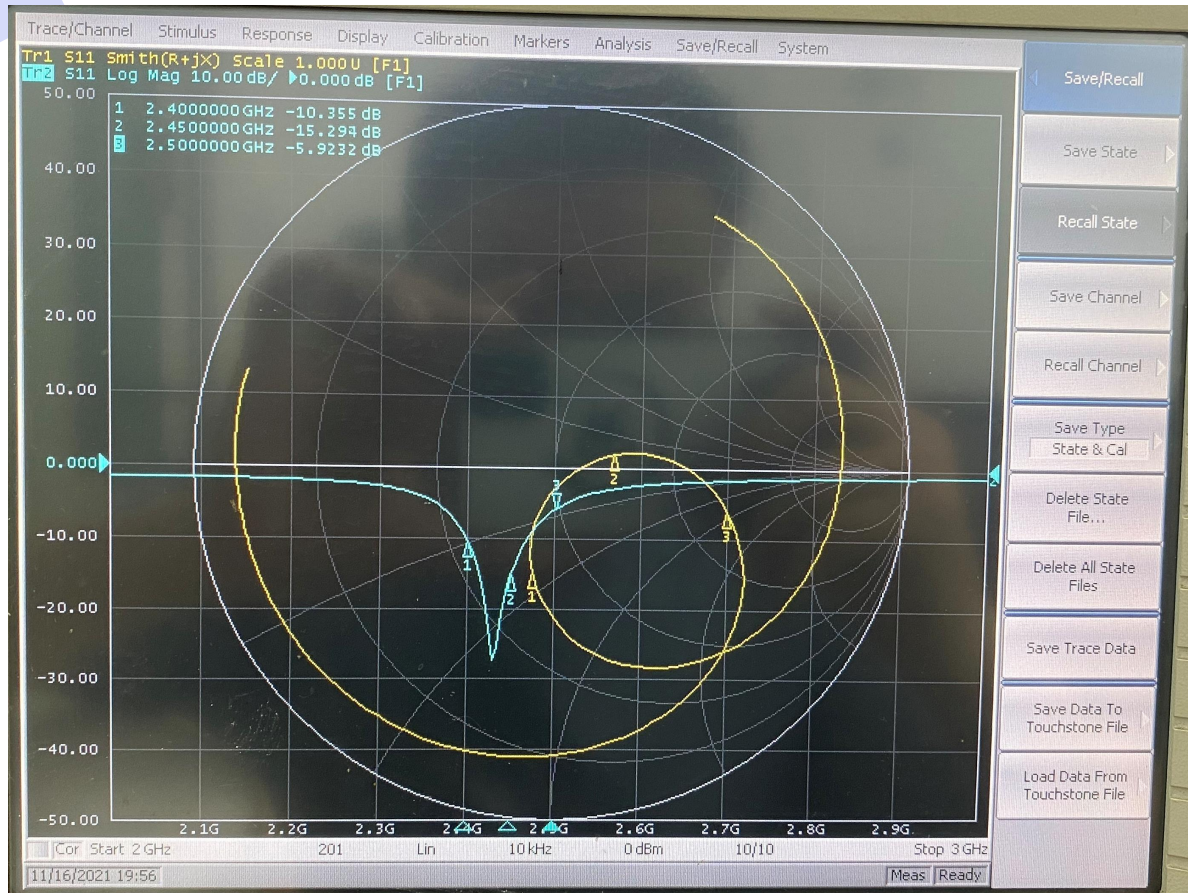
1. Product Overview & Dimension
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2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	CMW500 & CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



S11—(BT ANT)



Test Result

Gain & Efficiency——**BT- ANT(L/R)**

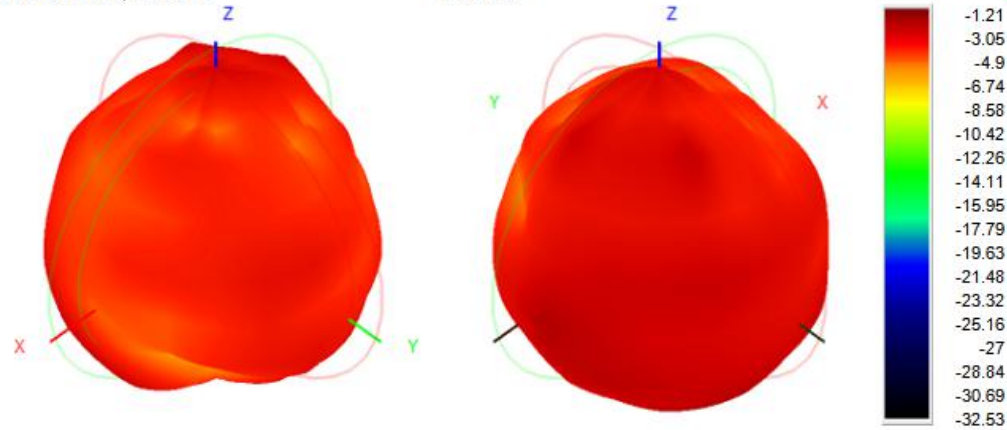
Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	28.67	-1.21
2410	31.29	-1.16
2420	33.74	-0.90
2430	38.29	-0.15
2440	39.25	-0.35
2450	37.93	-0.96
2460	34.61	-0.99
2470	31.95	-1.24
2480	27.31	-1.55
2490	26.37	-2.07
2500	24.08	-2.63

Test Result

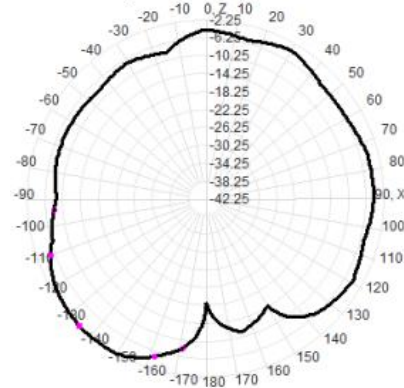
2D&3D — BT-ANT

2400.0MHz H+V, Eff: 28.7%

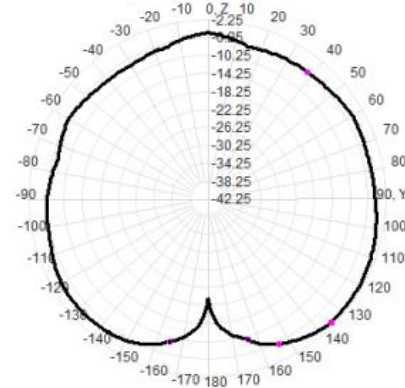
Back View



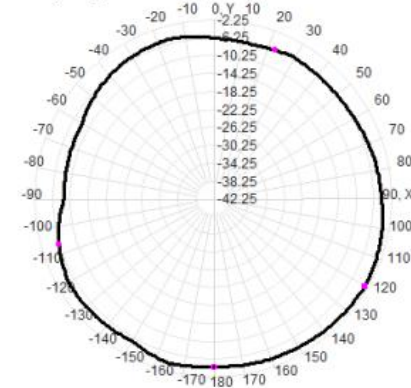
2400.0MHz Total(E1-XZ), Max=-2.25dBi



2400.0MHz Total(E2-YZ), Max=-3.23dBi



Total(H-XY), Max=-3.32dBi, CirD=5.61

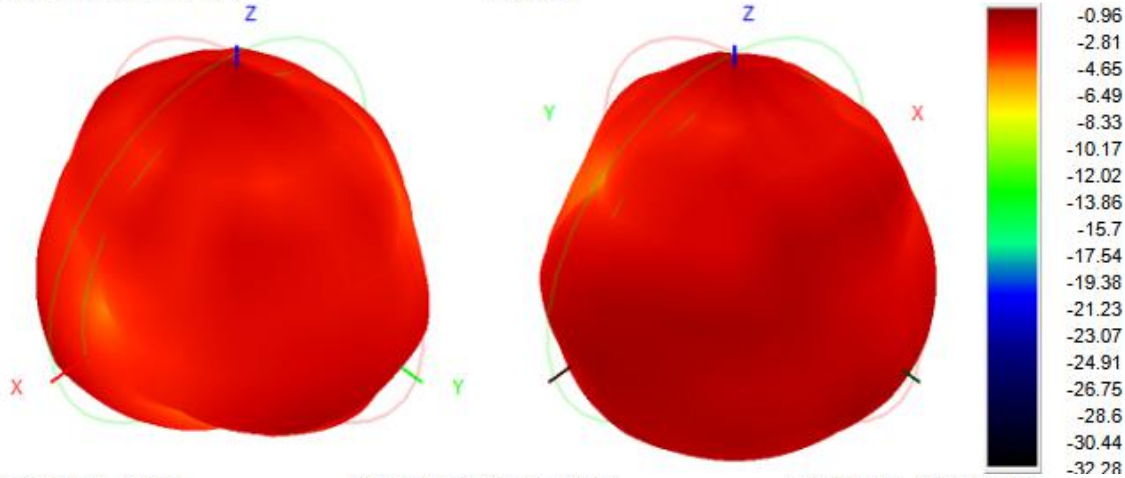


Test Result

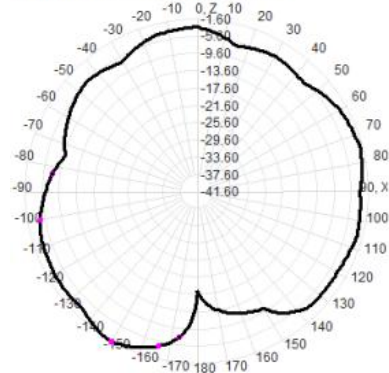
2D&3D — BT- ANT

2450.0MHz H+V, Eff: 37.9%

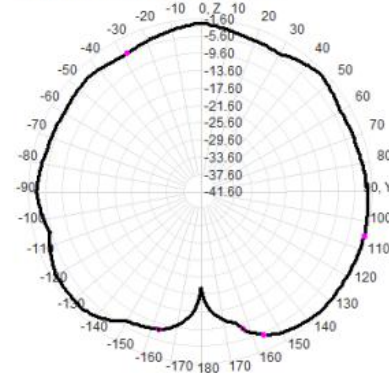
Back View



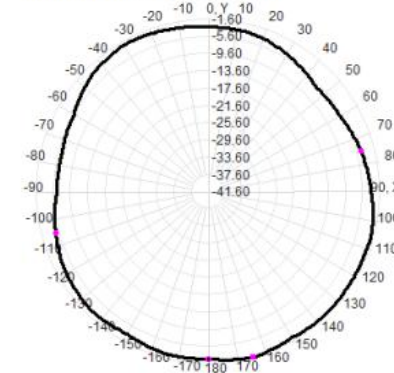
2450.0MHz Total(E1-XZ), Max=-1.60dBi



2450.0MHz Total(E2-YZ), Max=-2.34dBi



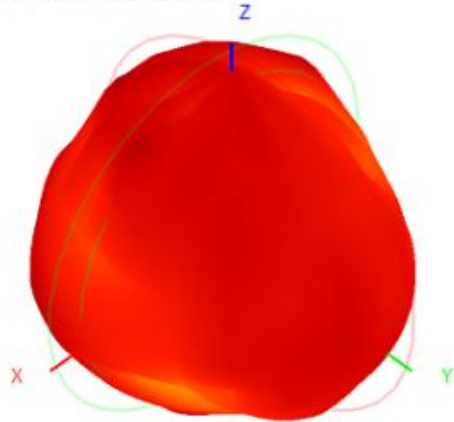
Total(H-XY), Max=-1.97dBi, CirD=4.81



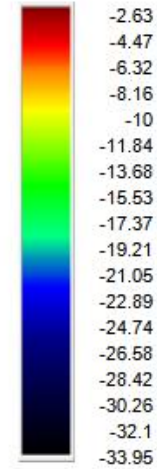
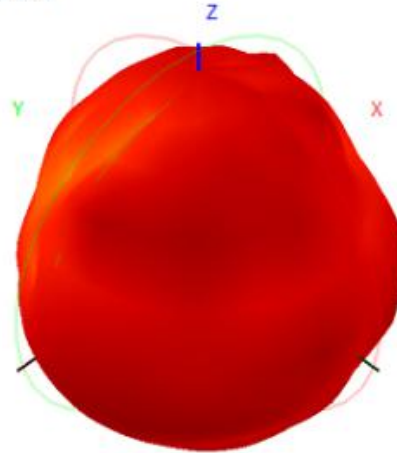
Test Result

2D&3D — BT-ANT

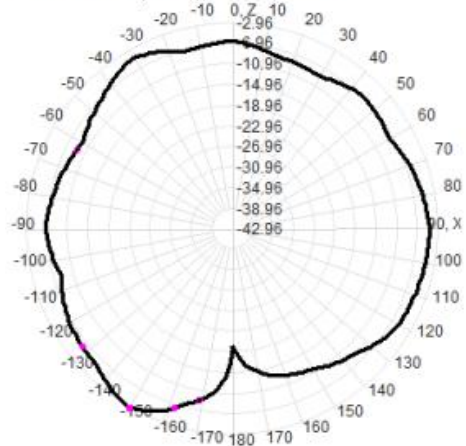
2500.0MHz H+V, Eff: 24.1%



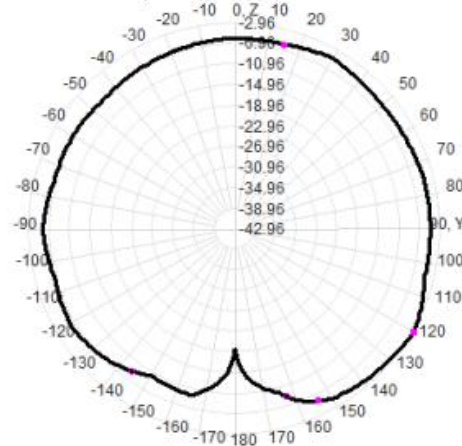
Back View



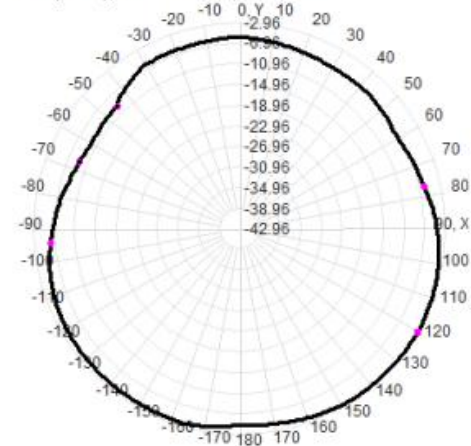
2500.0MHz Total(E1-XZ), Max=-3.13dBi



2500.0MHz Total(E2-YZ), Max=-2.96dBi

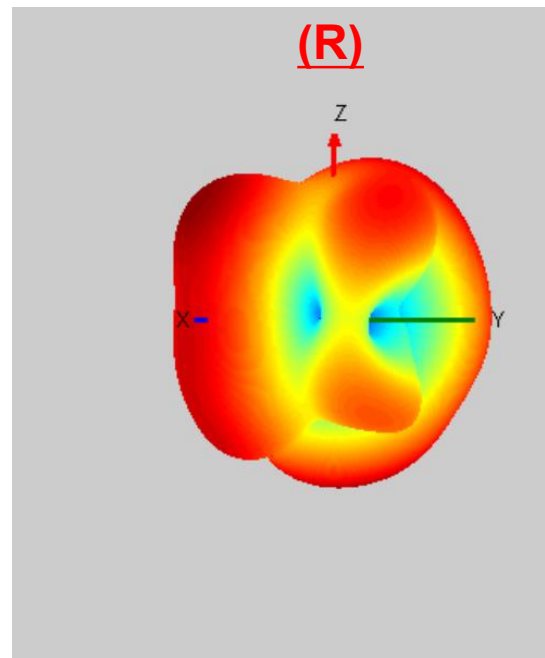
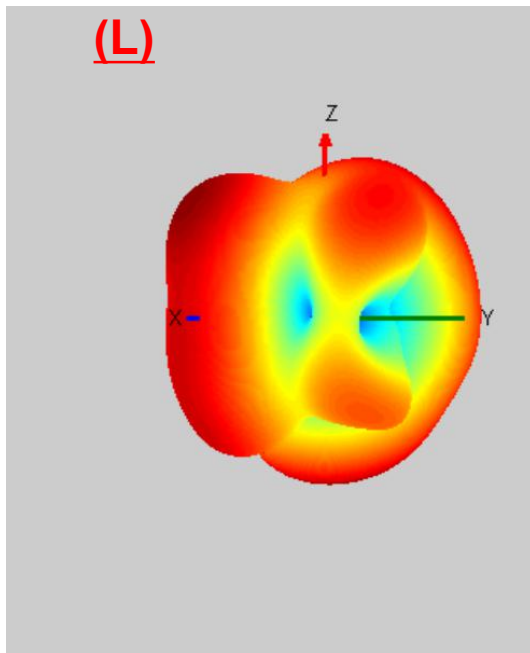


Total(H-XY), Max=-3.20dBi, CirD=6.65



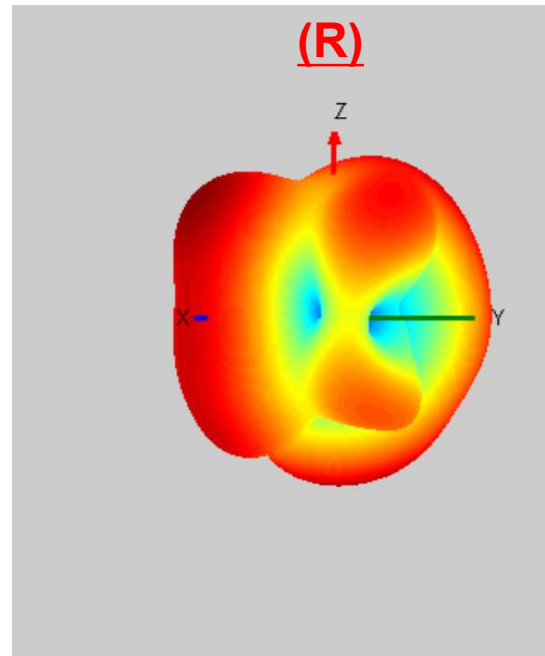
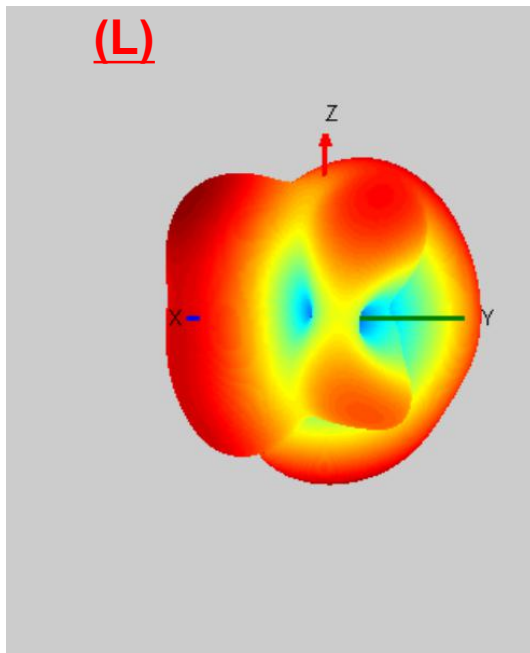
OTA DATA (L)

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	5.30	-89.41
		39	6.65	-87.31
		78	4.34	-84.08



OTA DATA (L-R)

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	4.83	-89.03
		39	4.89	-86.55
		78	2.93	-84.87



Thanks for your comment!

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