



# Sample Approval Record

Log. No: 12SAR-HVA- <b>6275</b>	Rev.: 1	Sheet: 1 of 2
Computime Description: <b>ANTENNA ROD WIFI TRN8241 ROHS</b>		Computime P/N: <b>2434TRN824110SK2</b>
Manufacturer: <b>STEP (SHENZHEN) METAL SPRING CO LTD</b>		
Mfr. P/N: <b>2434TRN824110SK2</b>		
Design Group: <b>HVA-HVA-ODM</b>		
First Used on Model: <b>TRN8241</b>	Component Weight: <b>NA</b>	UM: <b>PC</b>

**Environmental Requirement /Comment and Remark:**

- Lead-Free
  - RoHS (Directive 2002/95/EC)
  - SONY SS-00259: "This parts should not contain any substance which are specified in SS-00259" should be described in the documents that regulate the procedure, standards, guidelines and requirements of the design of raw materials parts, subsidiary materials to be added to products, packaging materials and packaging support materials.
  - Samsung: Refer to SEC Registration No. 0QA-2049
  - Green Requirement (specify if check)
  - EUPPW (Directive 94/62/EC)
  - Battery Directive (Directive 2006/66/EC)
  - Others (specify if check)
- 1, 首次来料由IQA通知需要工程师确认。  
2, ROHS资料参照10MVD00272, 11RPA00031, 13LRR00308.

**Approval Status:** (Please check the selected box)

- MR - Material Release Qty: / Total MR Qty:
- CA - Conditional Approval Qty: / Total CA Qty:
- AP - Approved
- FL - Fail

**Supporting Documents of Lead-Free/RoHS/Green parts:**

(Please circle the selected option number and check the available supporting documents)

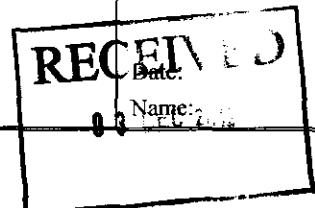
	Option				
	1	2	③	4	5
Vendor Declaration Use of RoHS Material or Manufacturer Declaration Letter	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recognized Laboratory Lead-Free/RoHS/Green Report (parts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead-Free/RoHS/Green Manufacturer List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lead-Free/RoHS/Green mark on Published specification for particular part/board or Public Material Content Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recognized Laboratory Raw Material Report or Raw Material Mfr. in "Lead-Free/RoHS/Green Manufacturer List"	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computime RoHS Process Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COMPUTIME Supplier's Qualification Audit Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RoHS Analysis Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer Agreement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Prepared by:
- Reviewed by:
- Approved by:
- Signed by VP/GM:
- Signed by COO:

<p><b>Anders Liu</b></p> <p>Date: Dec. 3, 13</p> <p>Name: Anders Liu</p>	<p><b>Anders Liu</b></p> <p>Date: Dec. 3, 13</p> <p>Name: Anders Liu</p>	<p><b>Arion Wong</b></p> <p>Date: 2013-12-3</p> <p>Name: Arion Wong</p>
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Date: \_\_\_\_\_

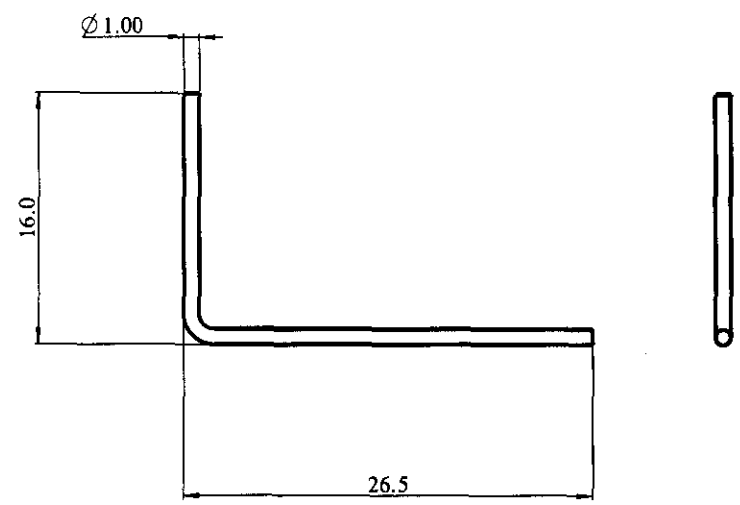
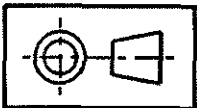
Name: \_\_\_\_\_



Form No.: F-ENG-1001N

**SZDCC-BJ**


03 DEC 2013



- NOTE:
1. Material: rigid copper wire
  2. Finish: Ni\_plated.
  3. The antenna should be not easy to be bend.
  4. Good solderability to PCB end.

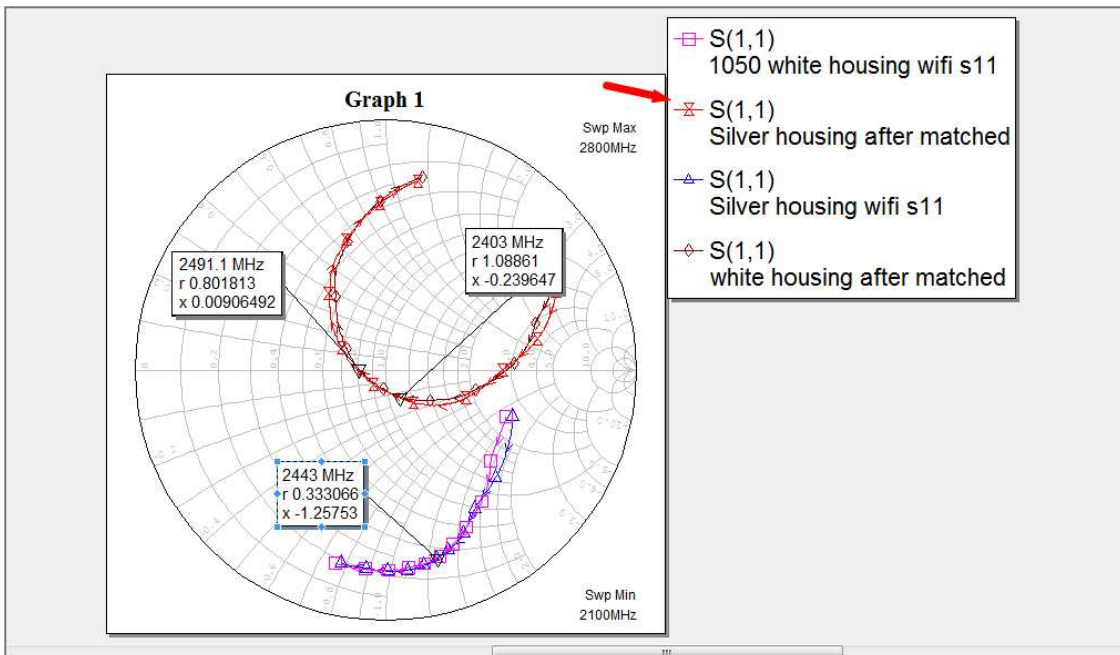
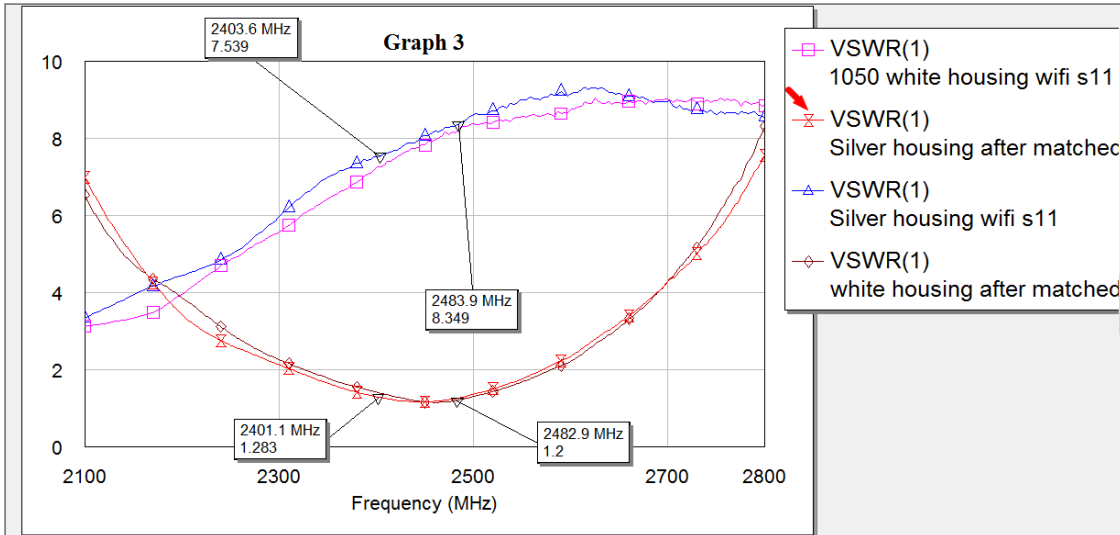
Shenzhen STEP Metal and Plastic Technology Co.,Ltd  
 深圳市越宏五金塑胶技术有限公司  
 Add: Building B&C&E, Jinhao Industrial Park, Guanlan Street, Longhua District, Shenzhen 518110, China  
 深圳市龙华区观澜街道大富工业区金豪创业园B&C&E栋 越宏实业 邮编: 518110

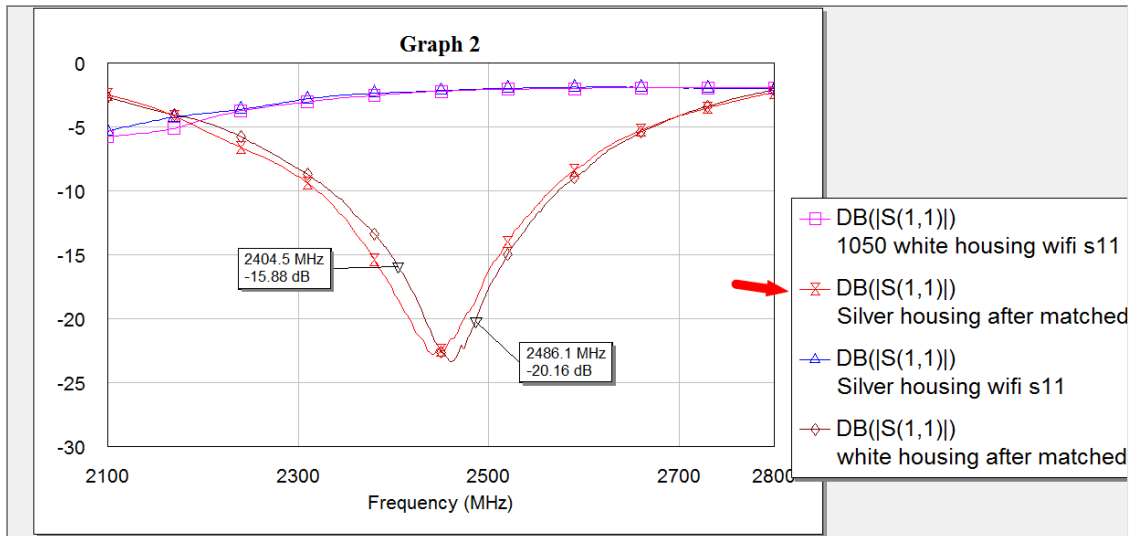
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A		FIRST RELEASE		HITER	May-27-13
REV	DESCRIPTIONS			DWN	DATE
MAT'L		FINISH			
copper		NI_PLATED			
COLOUR BY MATERIAL		SCALE	UNIT	<b>TITLE</b> ANTENNA	
		2:1	MM		
GENERAL TOLERANCE	DWN BY	DATE	<b>PART NO.</b> TBD		
DECIMALS TOLERANCE	HITER	May-27-13			
X.X	±0.2	CHKD BY	DATE	<b>REV</b> A2	
X.XX	±0.10	APPD BY	DATE		
X.XXX	±0.05				
ANGULAR	±1°				

Passive performance test parameters

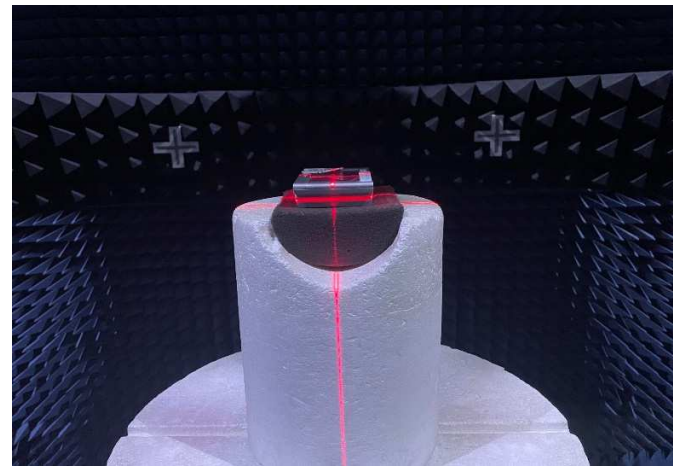
Frequency(MHz)	2401.1		2482.9
VSWR (Silver housing)	1.283		1.2

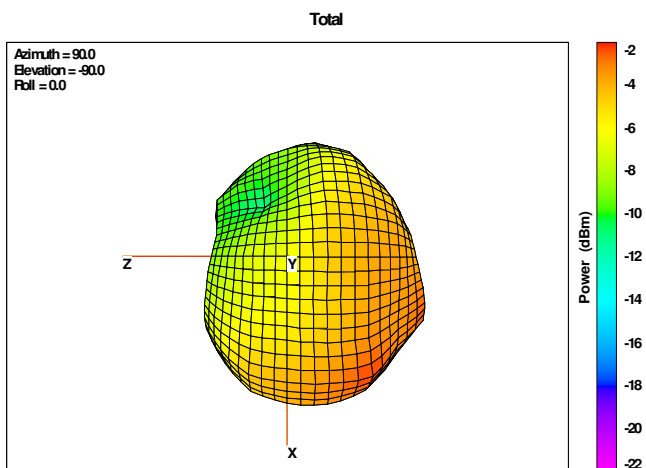
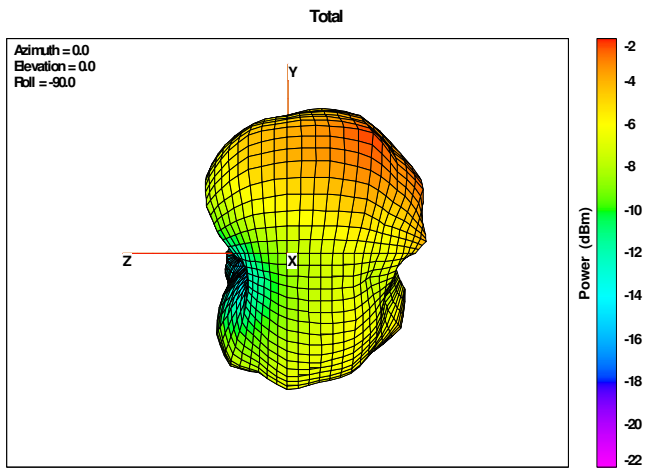
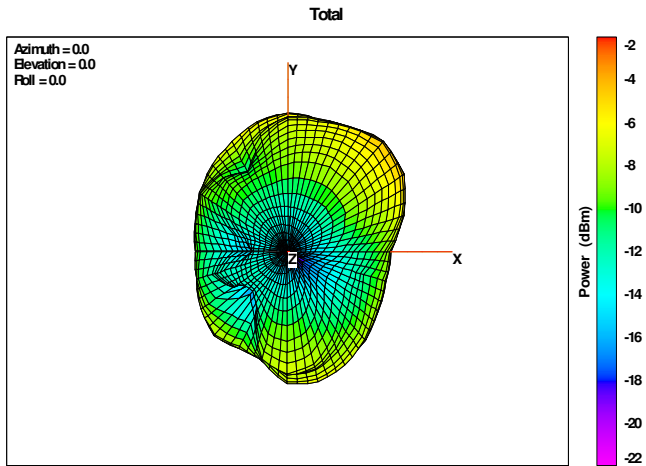


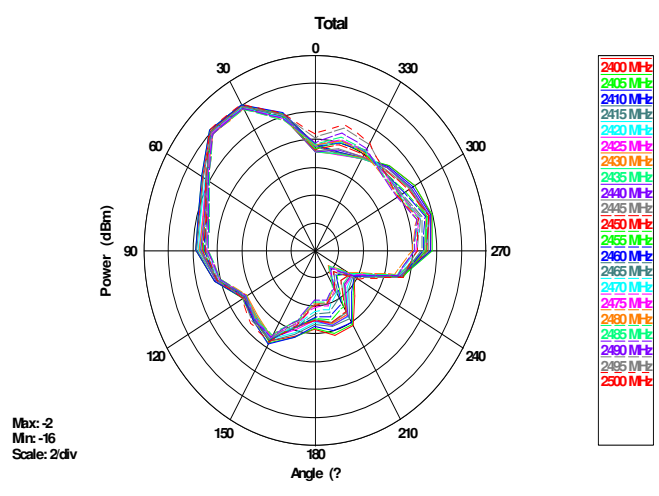


2D、3D Performance figure

Frequency (MHz)	Efficiency (dB)	Efficiency (%)	Gain (dBi)
2400	-7.45	17.99	-2.02
2405	-7.35	18.40	-1.85
2410	-7.41	18.14	-1.92
2415	-7.48	17.87	-1.95
2420	-7.61	17.34	-2.13
2425	-7.58	17.46	-2.03
2430	-7.61	17.33	-2.01
2435	-7.59	17.43	-1.94
2440	-7.56	17.53	-1.87
2445	-7.60	17.37	-1.88
2450	-7.62	17.30	-1.96
2455	-7.66	17.13	-1.96
2460	-7.67	17.08	-2.06
2465	-7.66	17.15	-1.95
2470	-7.77	16.73	-2.06
2475	-7.77	16.73	-2.05
2480	-7.94	16.07	-2.19
2485	-7.88	16.29	-2.23
2490	-7.83	16.47	-2.04
2495	-7.57	17.51	-2.01
2500	-7.44	18.02	-1.71







## Electrical performance test report

Electrical parameters	
Frequency range	2400MHz-2500MHz
input impedance	50Ω
VSWR	<2.0 control sample test pater
Gain	Max
	-1.71dBi
Polarization mode	Vertical polarization
Radiation direction	omnidirectional
connection method	Manual solder
The mechanical parameters	
<b>Material</b>	Rigid copper wire
<b>Finish</b>	Ni_plated
Salt spray test	24H
Environmental parameters	
Working temperature	-40~85°C