



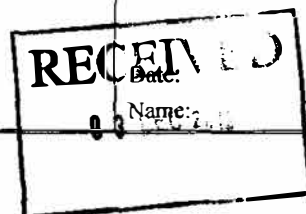
Sample Approval Record

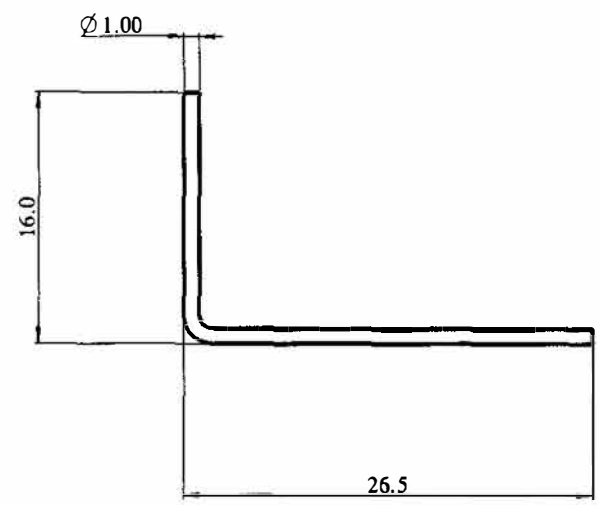
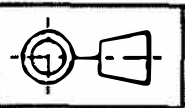
Log. No: 12SAR-HVA- 6275		Rev.: 1	Sheet: 1 of 2																																																													
Computime Description: ANTENNA ROD WIFI TRN8241 ROHS			Computime P/N: 2434TRN824110SK2																																																													
Manufacturer: Shenzhen STEP Metal and Plastic Technology Co., Ltd																																																																
Mfr. P/N: 2434TRN824110SK2																																																																
Design Group: HVA-HVA-ODM																																																																
First Used on Model: TRN8241		Component Weight: NA		UM: PC																																																												
Environmental Requirement /Comment and Remark:																																																																
☐ Lead-Free ☐ EUPPW (Directive 94/62/EC)																																																																
☒ RoHS (Directive 2002/95/EC) ☐ Battery Directive (Directive 2006/66/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) ☐ 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)																																																																
<table border="1"><thead><tr><th></th><th>1</th><th>2</th><th>③</th><th>4</th><th>5</th></tr></thead><tbody><tr><td>Vendor Declaration Use of RoHS Material or Manufacturer Declaration Letter</td><td>☐</td><td></td><td>☒</td><td>☐</td><td>☐</td></tr><tr><td>Recognized Laboratory Lead-Free/RoHS/Green Report (parts)</td><td>☐</td><td></td><td></td><td></td><td></td></tr><tr><td>Lead-Free/RoHS/Green Manufacturer List</td><td></td><td>☐</td><td></td><td></td><td></td></tr><tr><td>Lead-Free/RoHS/Green mark on Published specification for particular part/board or Public Material Content Report</td><td></td><td>☐</td><td></td><td></td><td></td></tr><tr><td>Recognized Laboratory Raw Material Report or Raw Material Mfr. in "Lead-Free/RoHS/Green Manufacturer List"</td><td></td><td></td><td>☒</td><td></td><td></td></tr><tr><td>Computime RoHS Process Assessment</td><td></td><td></td><td>☒</td><td></td><td></td></tr><tr><td>COMPUTIME Supplier's Qualification Audit Report</td><td></td><td></td><td></td><td>☐</td><td>☐</td></tr><tr><td>RoHS Analysis Report</td><td></td><td></td><td></td><td>☐</td><td>☐</td></tr><tr><td>Customer Agreement</td><td></td><td></td><td></td><td>☐</td><td>☐</td></tr></tbody></table>						1	2	③	4	5	Vendor Declaration Use of RoHS Material or Manufacturer Declaration Letter	☐		☒	☐	☐	Recognized Laboratory Lead-Free/RoHS/Green Report (parts)	☐					Lead-Free/RoHS/Green Manufacturer List		☐				Lead-Free/RoHS/Green mark on Published specification for particular part/board or Public Material Content Report		☐				Recognized Laboratory Raw Material Report or Raw Material Mfr. in "Lead-Free/RoHS/Green Manufacturer List"			☒			Computime RoHS Process Assessment			☒			COMPUTIME Supplier's Qualification Audit Report				☐	☐	RoHS Analysis Report				☐	☐	Customer Agreement				☐	☐
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☒ Prepared by: Anders Liu Date: Dec. 3, 13 Name: Anders Liu		☒ Reviewed by: Anders Liu Date: Dec. 3, 13 Name: Anders Liu		☒ Approved by: Date: 2013-12-3 Name: Arion Wong																																																												
		☐ Signed by VP/GM:		☐ Signed by COO:																																																												

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.

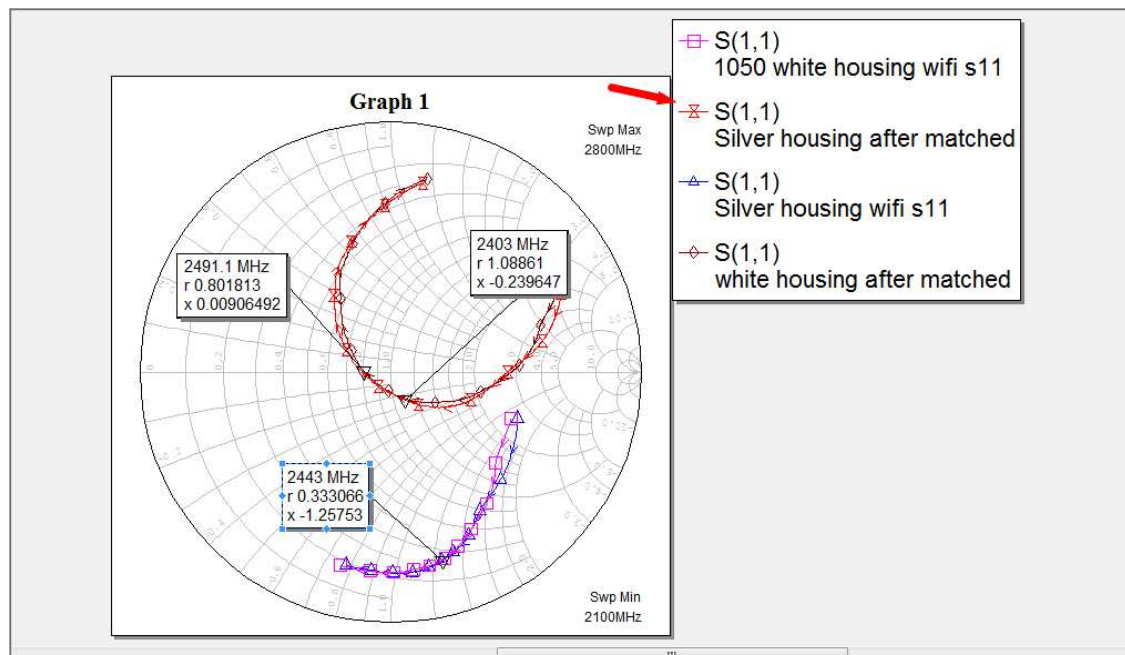
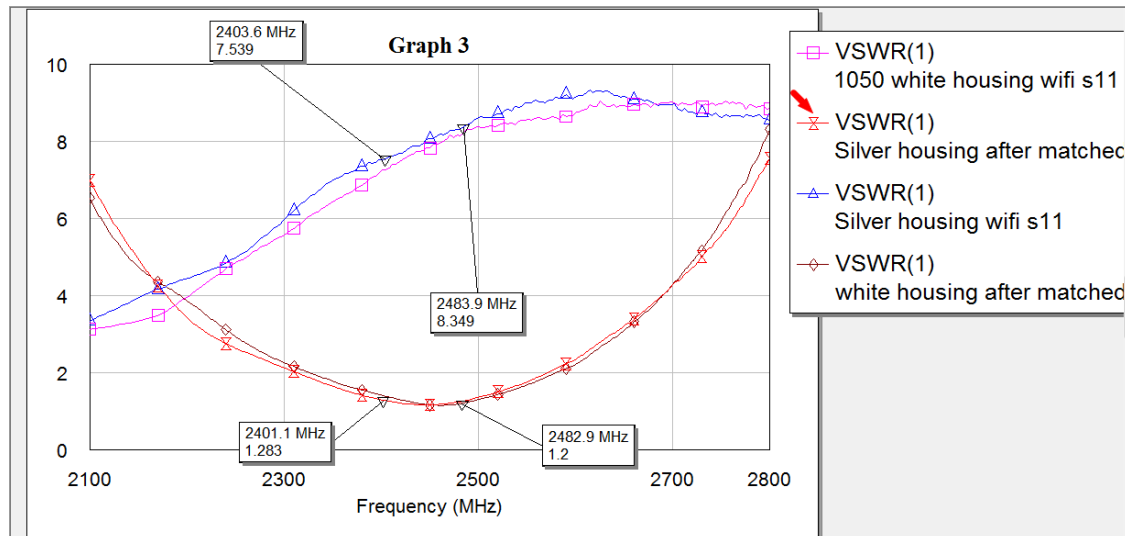
Shenzhen STEP Metal and Plastic Technology Co.,Ltd
深圳市越宏五金塑胶技术有限公司
Add: Building B&C&E, Jinhao Industrial Park, Guanlan Street, Longhua District, Shenzhen 518110, China
深圳市龙华区观澜街道大富工业区金豪创业园B&C&E栋 越宏实业 邮编: 518110

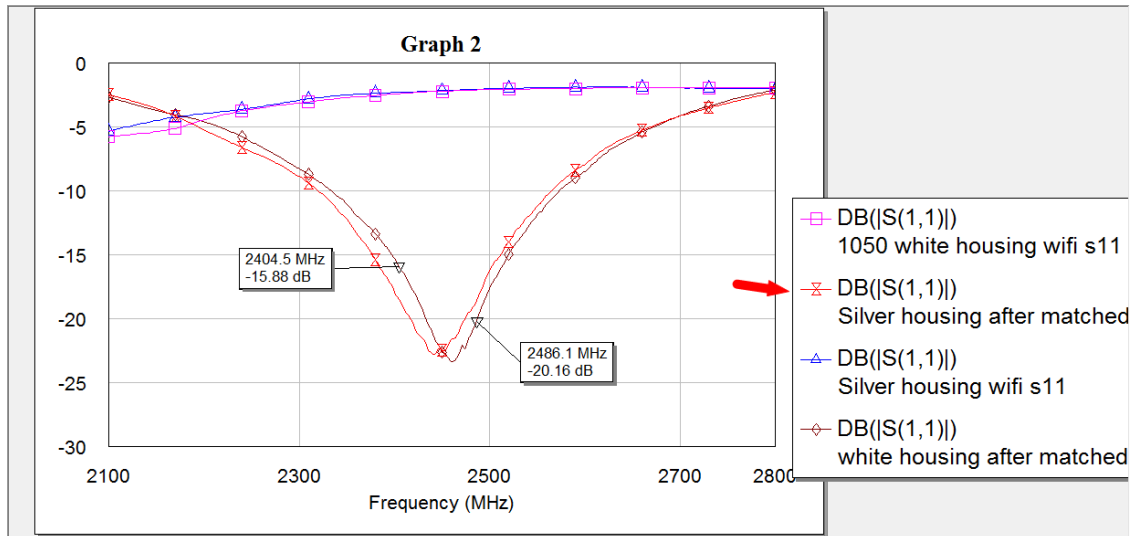
A	FIRST RELEASE				HITER	May-27-13
REV	DESCRIPTIONS				DWN	DATE
MAT'L copper		FINISH NI PLATED		 computime ltd		
COLOUR BY MATERIAL		SCALE 2:1	UNIT MM			
GENERAL TOLERANCE		DWN BY	DATE			
DECIMALS	TOLERANCE	HITER	May-27-13			
X.X		±0.2	CHKD BY	DATE	TITLE ANTENNA	
X.XX		±0.10				
X.XXX		±0.05	APPD BY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

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Passive performance test parameters

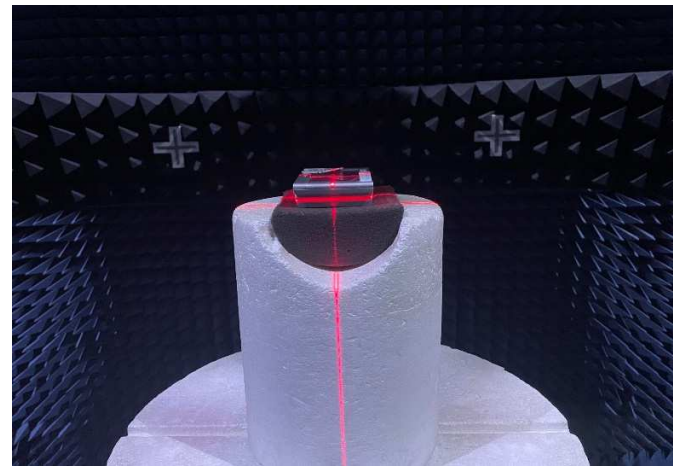
Frequency(MHz)	2401.1		2482.9
VSWR (Silver housing)	1.283		1.2

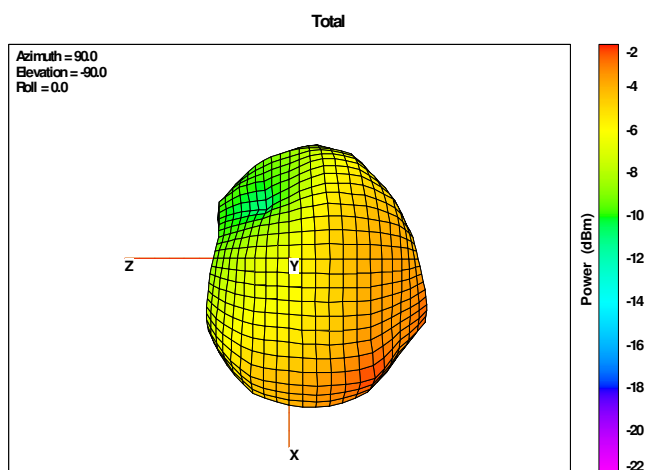
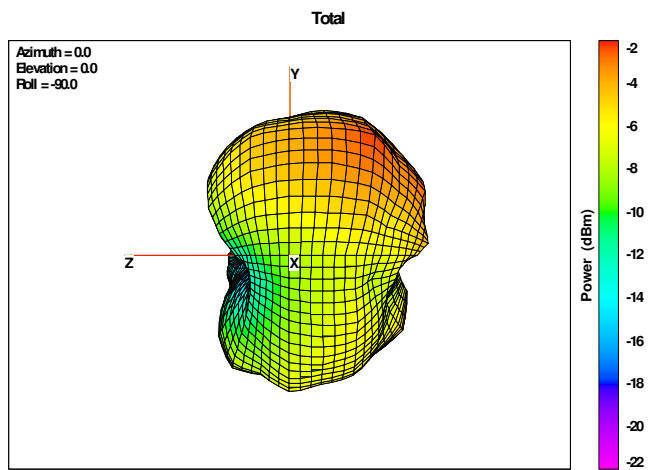
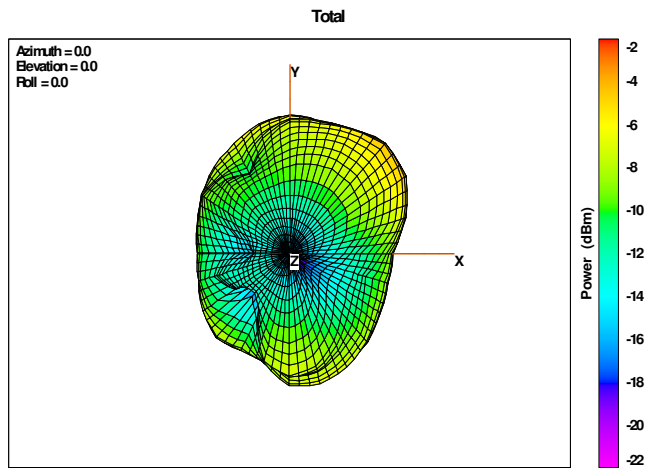


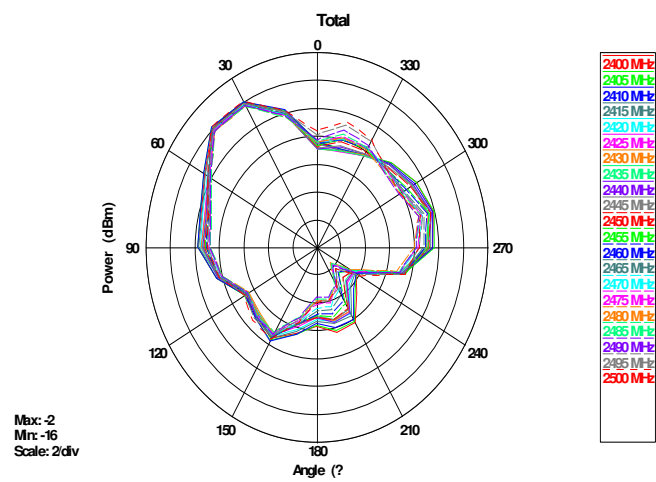


2D、3D Performance figure

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		
Material		Rigid copper wire
Finish		Ni_plated
Salt spray test		24H
Environmental parameters		
Working temperature		-40~85°C