
承 认 书

SPECIFICATION FOR APPROVAL

客户名称

CUSTOMER NAME:

产品名称

PRODUCT NAME: 2.4G\5.8G-5dBi 剑形 SMA 公头母针黑色天线

客户料号

CUSTOMER P/N:

公司料号

COMPANY P/N:

REV: A

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:		
DATE:	2015/11/14	

Contents

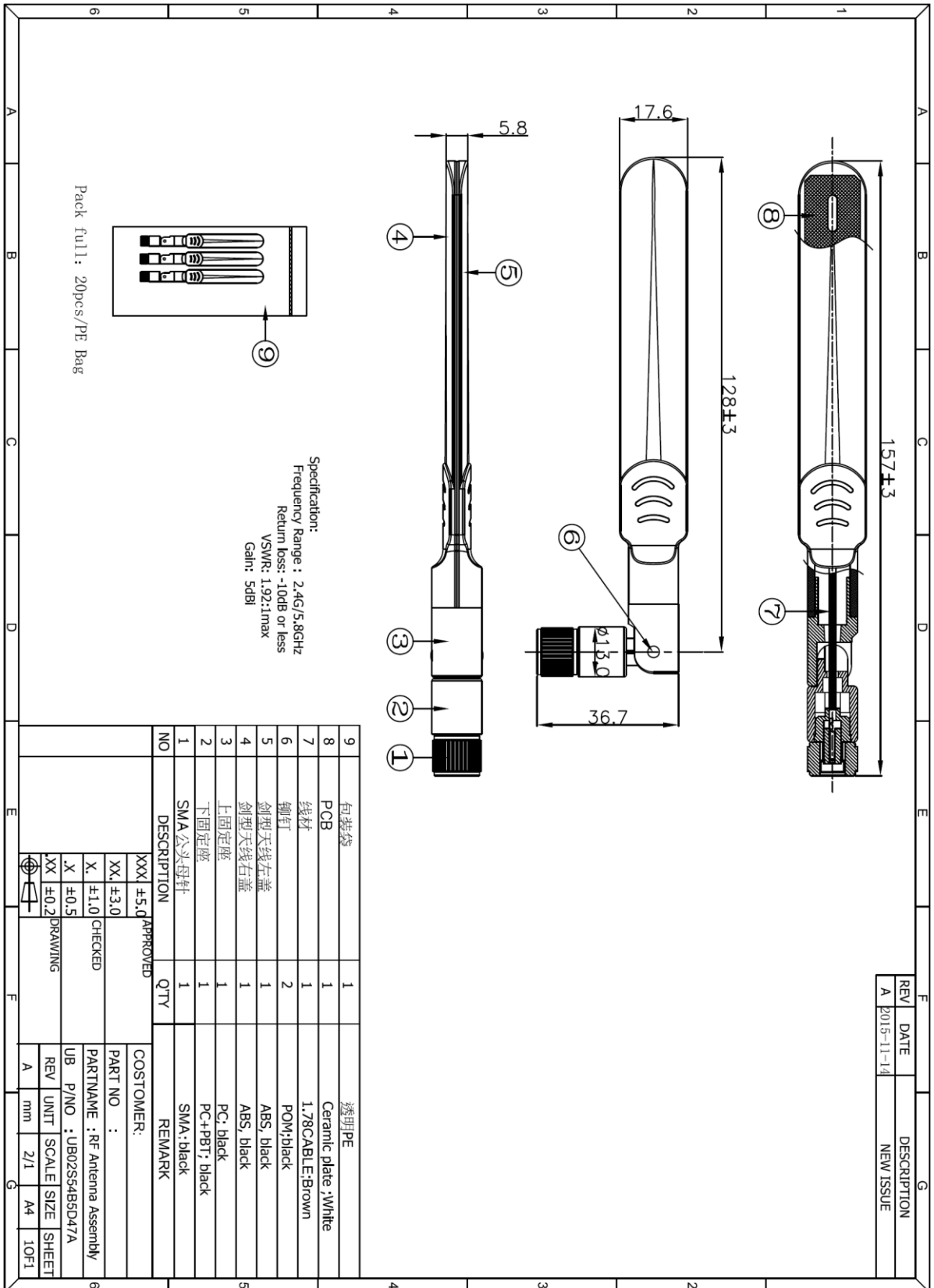
<i>Item</i>	<i>Description</i>
1.-----	规格表
2.-----	成品图
3.-----	测试报告
4、-----	SGS 报告

1. 规格表:

产品主要技术参数

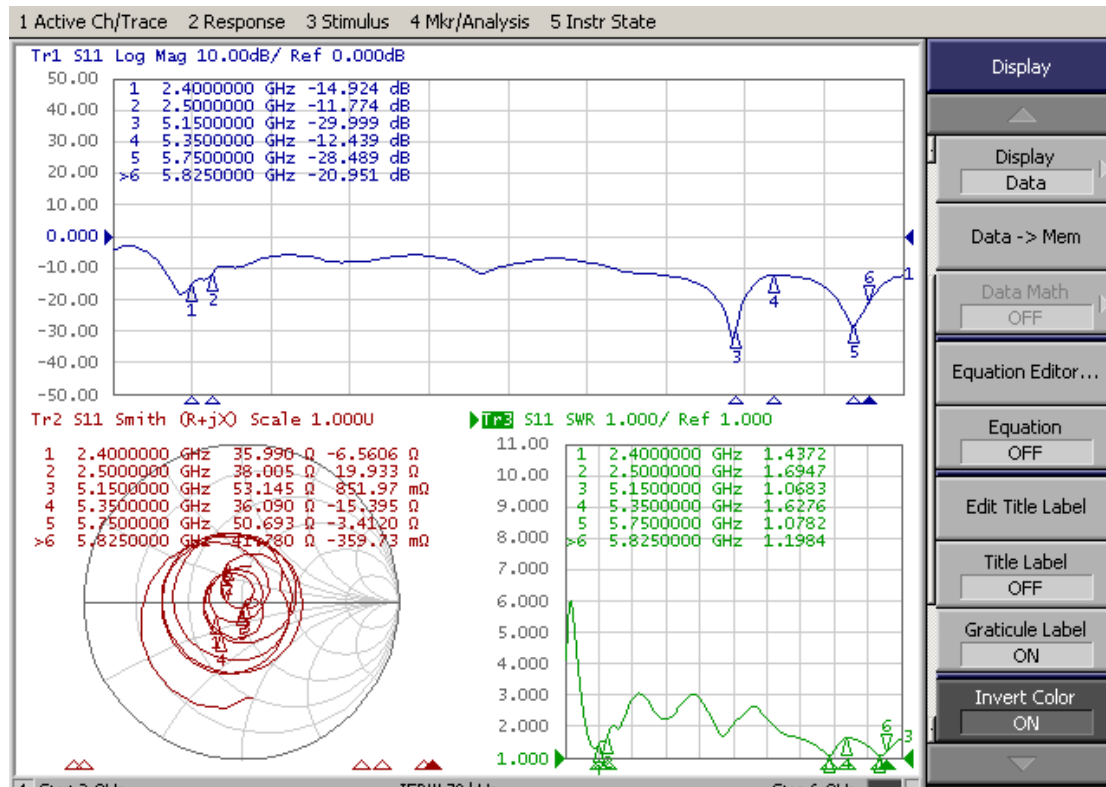
主要技术指标		Main technical specifications	
频率范围 (MHZ)	2400\5800	Frequency Range (MHZ)	2400\5800
特性阻抗(Ω)	50	Impedance(Ω)	50
增益(dBi)	5.0	Gain(dBi)	5.0
输出电压 驻波比	≤ 1.92	VSWR	≤ 1.92
最大功率	10W	Admitted Power	10W
极化方式	垂直极化	Polarization	Linear, Vertical
连接方式	SMA	Connector Type	SMA
物理性能		Physical Properties	
天线本体材料	ABS	Antenna Base	ABS
工作温度	-20 $^{\circ}$ C~+65 $^{\circ}$ C	Operating Temp	-20 $^{\circ}$ C~+65 $^{\circ}$ C
保存温度	-30 $^{\circ}$ C~+75 $^{\circ}$ C	Storage Temp	-30 $^{\circ}$ C~+75 $^{\circ}$ C

2. 成品图:

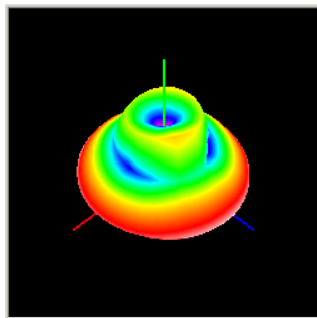


3. 测试报告

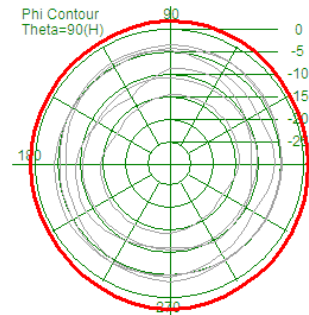
3.1: 网络分析仪测试报告:



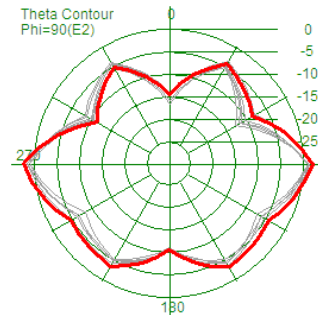
3.2: 暗室 2D、3DRaditation Pattern



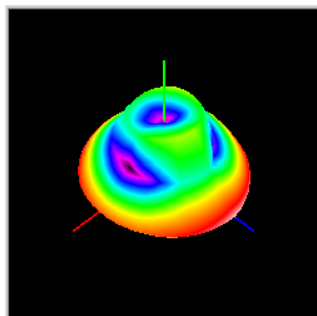
2.4GHz



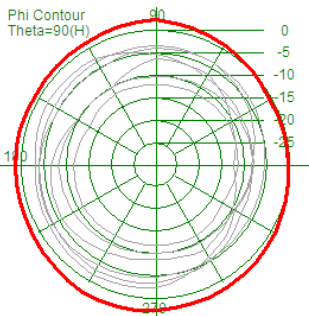
Gain: 4.83dBi



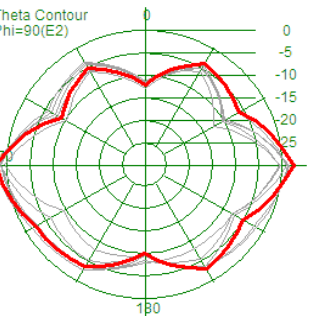
Efficiency: 71.38%



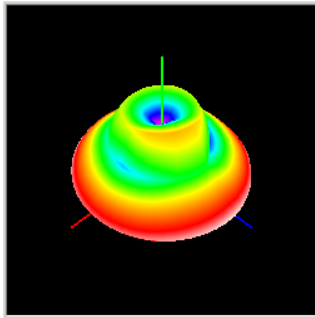
2.45GHz



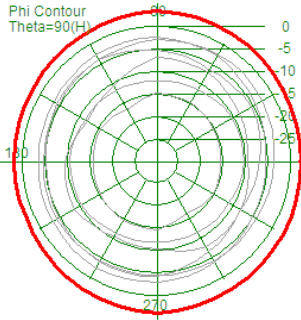
Gain: 4.85dBi



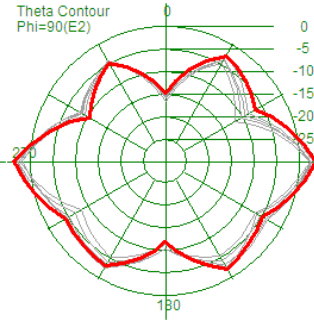
Efficiency: 71.56%



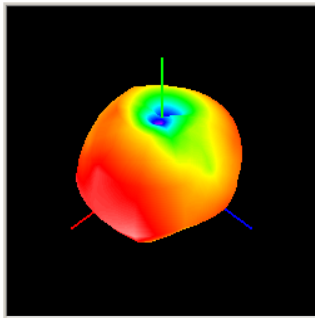
2.5GHz



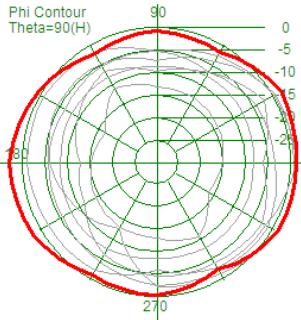
Gain: 5.00dBi



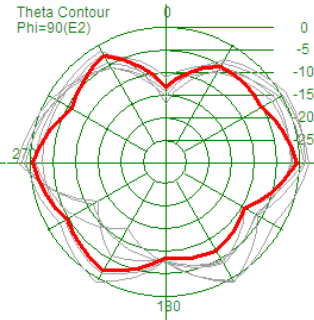
Efficiency: 72.19%



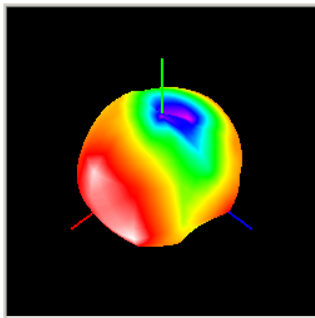
5.15GHz



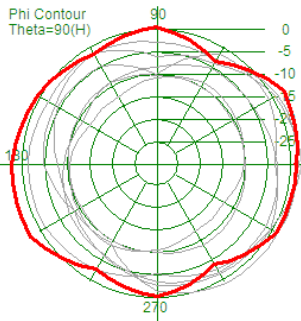
Gain: 5.00dBi



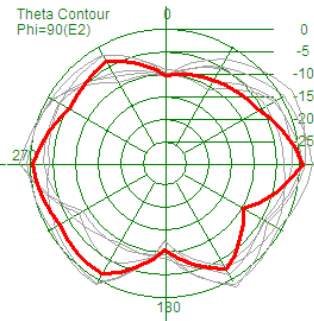
Efficiency: 73.34%



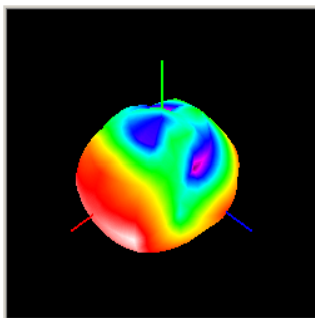
5.35GHz



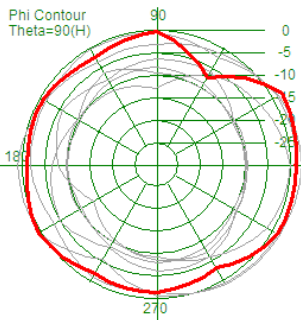
Gain: 5.00dBi



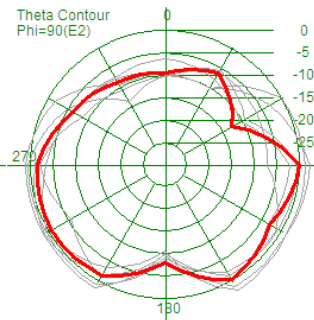
Efficiency: 73.23%



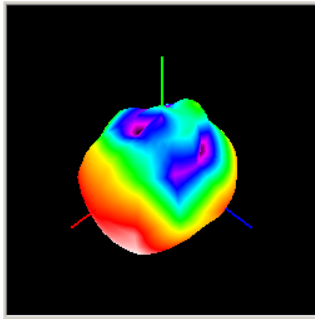
5.75GHz



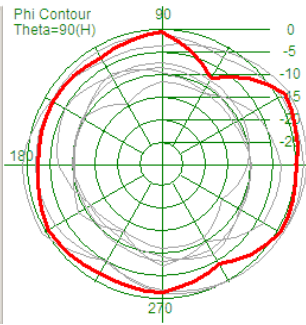
Gain: 5.00dBi



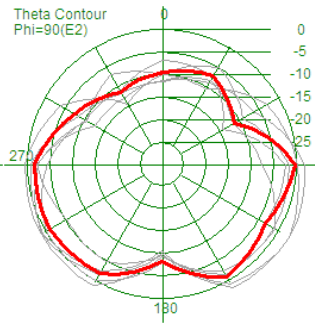
Efficiency: 74.18%



5.825GHz



Gain: 4.90dBi



Efficiency: 75.25%

4.SGS 报告:

Verification Report

No. CANEC1216278501

Date: 07-Jan-2015

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Applicant : **DONGGUAN UB ELECTRONIC COMPANY LIMITED**
Address : **3-4 FLOOR,NUMBER 1 SOUTHWEST ROAD,SHEK KWU INDUSTRIAL ZONE TANGXIA**
TOWN,DONGGUAN CITY
CHINA

Sample Name : Transformer
SGS Job No. : CP12-056425 - SZ
Tested Basic Model No. UBXXXXXXXX
(P.O. No.) :
Date of Sample Received : 29 Nov 2014
Verification Period : 29 Nov 2014 -07 Jan 2015
Verification Requested : With reference to RoHS Directive 2011/65/EU, and its amendment directives
Verification Method : Please refer to next page(s).
Verification Result : Please refer to next page(s).
Verification Conclusion : Based on the review of previous reports and verification results of the submitted samples, the results of Cadmium, Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) comply with the limits as set by RoHS Directive 2011/65/EU recasting 2002/95/EC.
Note : The test results are related only to the tested items. The report shall not be reproduced except in full without the written approval of the testing laboratory.

Signed for and on behalf of
SGS-CSTC Ltd.

JENNY LIAO

Approved Signatory

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Verification Method :

1. Review was performed for the samples disjoined from the submitted articles and the related test reports submitted by the Applicant
2. Tests were performed for the samples indicated by the photos in the report with test methods reference to IEC 62321:2008: Procedures for the Determination of Levels of Six Regulated Substances in Electrotechnical Products
 - (1) Screening by XRF Spectroscopy
 - (2) Wet Chemical Test Method
 - a. Determination of Lead & Cadmium by ICP-OES or AAS
 - b. Determination of Mercury by ICP-OES
 - c. Determination of Hexavalent Chromium by Spot test or Colorimetric Method
 - d. Determination of PBBs and PBDEs by GC-MS

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted Resubmitted Date
1	White plastic shell		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
2	White plastic part (connected w/ No.1)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
3	White plastic nut (connected w/ No.2)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
4	Silvery metal nut (in No.3)		Pb Cd Hg Cr(VI) PBBs PBDEs	OL BL BL BL --- ---	29264▲ --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted/ Resubmitted Date
5	Silvery metal tube (connected w/ No.4)		Pb Cd Hg Cr(VI) PBBs PBDEs	OL BL BL BL --- ---	34278▲ --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
6 -C	Silvery metal ring (in No.4)		Pb Cd Hg Cr(VI) PBBs PBDEs	OL BL BL BL --- ---	28984▲ --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
7	White plastic ring (in No.4)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
8	Red rubber ring (in No.4)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted Resubmitted Date
9	White plastic tube (in No.5)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
10	Golden metal tube (in No.9)		Pb Cd Hg Cr(VI) PBBs PBDEs	OL BL BL BL --- ---	24932▲ --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
11	Silvery metal part (in No.2)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL --- ---	--- --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
12	Silvery metal tube (in No.11)		Pb Cd Hg Cr(VI) PBBs PBDEs	OL BL BL BL --- ---	30455▲ --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted Resubmitted Date
13	Golden metal rod (in No.1)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL --- ---	--- --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
14	Black foam ring (on No.13)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
15	Silvery metal rod (connected w/ No.13)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL --- ---	--- --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
16	Black plastic (heat shrinkable tube) (on No.15)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted Resubmitted Date
17	Golden metal tube (connected w/ No.16)		Pb Cd Hg Cr(VI) PBBs PBDEs	OL BL BL BL --- ---	30411▲ --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
18	White glue (connected w/ No.16)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
19	White plastic cover (connected w/ No.17)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
20	Pink transparent plastic (cable jacket) (connected w/ No.19)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted Resubmitted Date
21	Silvery metal wire (in No.20)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL --- ---	--- --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
22	White plastic (wire insulation) (in No.21)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
23	Black plastic shell		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
24	Black plastic part (connected w/ No.23)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted Resubmitted Date
25	Grey plastic (cable jacket) (connected w/ No.24)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
26	Transparent plastic (wire insulation) (in No.25)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL BL BL	--- --- --- --- --- ---	Comply Comply Comply Comply Comply Comply	29 Nov 2014
27	Golden metal rod (in No.23)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL --- ---	--- --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014
28	Silvery metal rod (connected w/ No.27)		Pb Cd Hg Cr(VI) PBBs PBDEs	BL BL BL BL --- ---	--- --- --- --- --- ---	Comply Comply Comply Comply --- ---	29 Nov 2014

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Part No.	Part Description	BOM No.	Restricted Substances	Results of EDXRF (1)	Result of Wet Chemical Testing(2) (mg/kg)	Conclusion on EU RoHS	Sample Submitted/ Resubmitted Date
29	Golden metal tube (connected w/ No.28)		Pb	OL	31558▲	Comply	29 Nov 2014
			Cd	BL	---	Comply	
			Hg	BL	---	Comply	
			Cr(VI)	BL	---	Comply	
			PBBs	---	---	---	
			PBDEs	---	---	---	

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Remark :

- (1) (a) There are the results on total Br while test items on restricted substances are PBBs and PBDEs. There is the result on total Cr while test item on restricted substances is Cr(VI).
- (b) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC62321 (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	--	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(c) BL = Below Limit, OL = Over Limit, IN = Inconclusive, LOD = Limit of Detection, -- = Not regulated.

(d) The XRF screening test for RoHS elements - The reading may be different to the actual content in the sample be of non-uniformity composition.

- (2) (a) mg/kg = 0.0001%, MDL = Method detection Limit, ND = Not Detected (<MDL), --- = Not conducted, - = Without BOM.

(b) Unit and MDL in wet chemical test

Test Item	Pb	Cd	Hg
Unit	mg/kg	mg/kg	mg/kg
MDL	2	2	2

The MDL for single compound of PBBs and PBDEs is 5 mg/kg, MDL of Cr(VI) for polymer and composite sample is 2 mg/kg.

- (c) According to IEC 62321:2008, result on Cr(VI) for metal sample is shown as Positive/Negative. Negative = Absence of Cr(VI) coating, Positive = Presence of Cr(VI) coating.

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- (d)▲= According to the declaration from the client,
Lead (Pb) in No.4, No.5, No.6-C, No.10, No.12, No.17 & No.29 are exempted by EU RoHS Directive 2011/65/EU based on: Copper alloy containing up to 4 % lead by weight.

*** End of Report ***

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