

Suzhou Point Positive Electronic Technology Co.,ltd

SPECIFICATION FOR APPROVAL

Customer	Hansong (NanJing) Technology Ltd		
Customer P/N	45-2-000263	Rev.	A1
Description	ANTENNA		
DRAWING P/N	RC12WFI0272A1		

CUSTOMER APPROVED BY STAMP	Approval	Quality	RD	Sales
	Roy	Hellen	Tak	Frank

ADD : No 3 XinLang Road ,Yinghu industrial Park, Wangting Town

Xiangcheng district Suzhou City

TEL : 0512-66706846

FAX : 0512-65088773

MAIL;Sales@ppteco.com



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1、 Antenna Drawing	-----	1
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2、 Electrical Properties	-----	
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Return Loss /VSWR

Radiation Pattern

3 ,Packing date	-----	
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4. Material Data Sheet		
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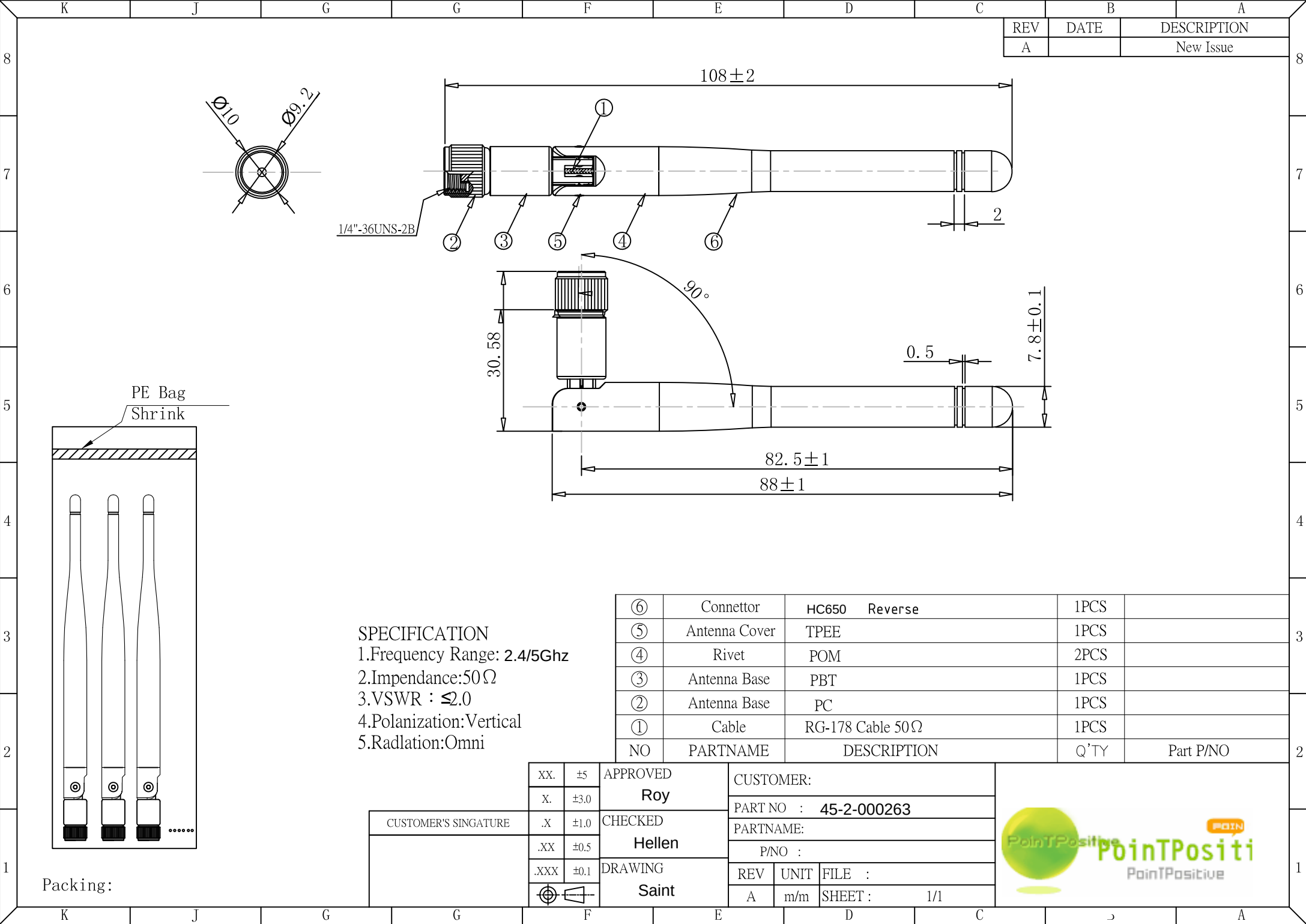
MHF Connector -----

Coaxial Cable -----

5. Material SGS.Rohs.MSDS	-----	
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SPECIFICATION

1. Description	2. 4-5. 8G antenna
2. Customer	Hansong (NanJing) Technology Ltd
3. Model No	RC12WFI0272A1
4. Part No	45-2-000263
5. Standard	
6. Antenna Profile	108mm (see Drawing)
7. Color	WH
8. Electrical Characteristics	
Operating Frequency	2. 4~5. 8GHz
Antenna Type	Dual band
Polarization Type	Linear
Return Loss	< -10dB
Peak Gain	2dBi-4dBi
Impedance	50 Ohm nominal
V.S.W.R	2:1 Max
9. Mechanical Characteristics	
Swivel	
Lead Length	
Connector	
10. Raw Material	
Coaxial Cable	RG178
Housing/Hinge	PC+TPPE



Antenna

Test report of Antenna



Date 2017-07-17

Outline Summary

- **Purpose**

Antenna study for Dipole. Result as following.

- **Agenda**

- Test Environment and Equipment

- Antenna Dimensions

- Test Data of Antenna:

Test Result : VSWR

Test Result : Efficiency & Peak Gain

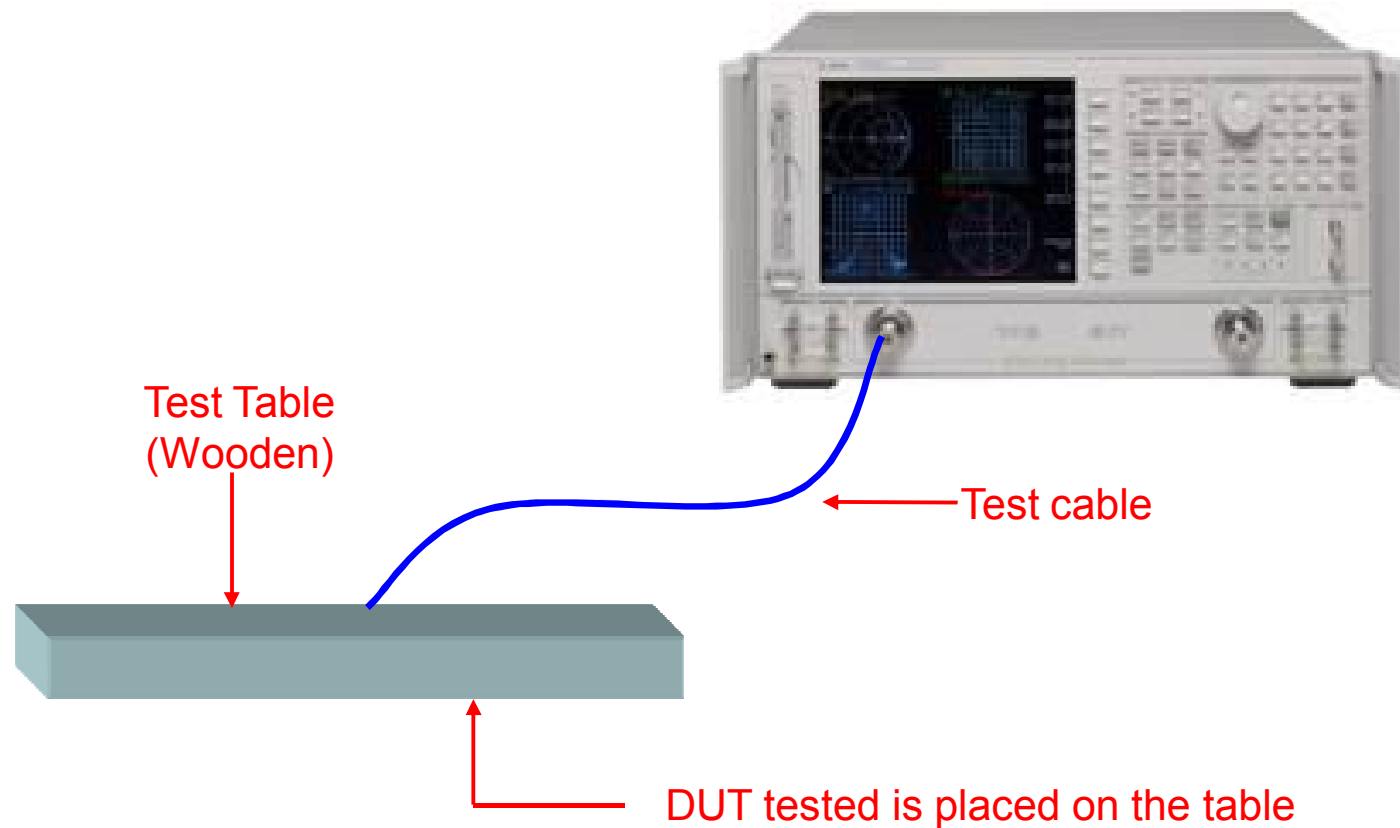
Test Result : 2D Radiation Pattern

- Conclusion

Test Environment and Equipments

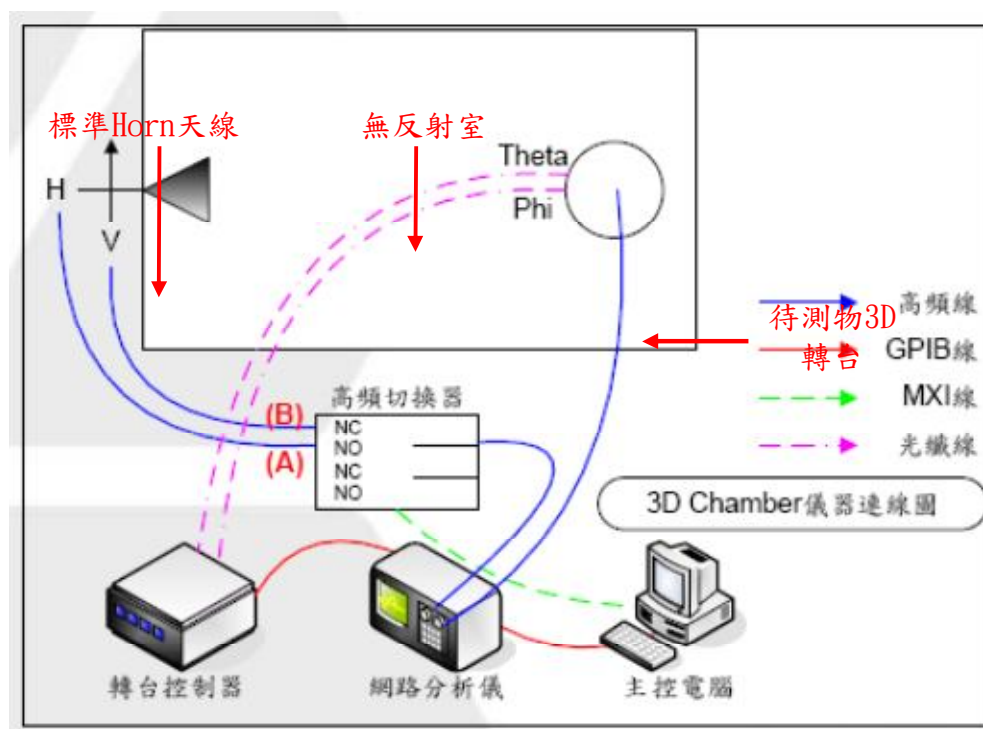
S-Parameter test

- Network Analyzer(Agilent-E5071C or R&S ZVL)
- Testing range from 9KHz to 8.5GHz or 300KHz~6.5GHz

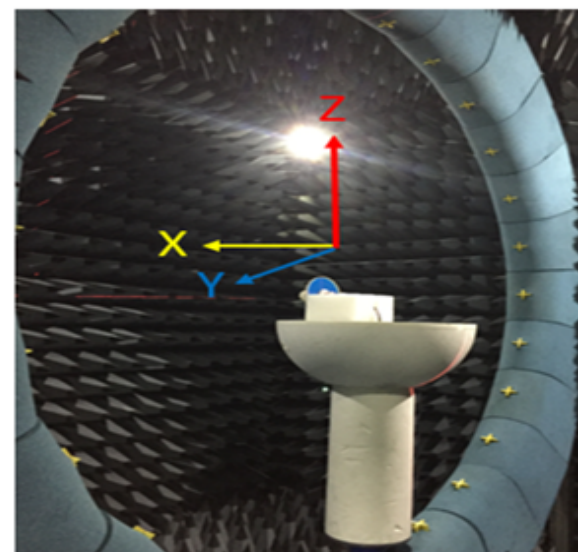


Test Environment and Equipments

The Gain, Efficiency, Directivity and 2D/3D Pattern

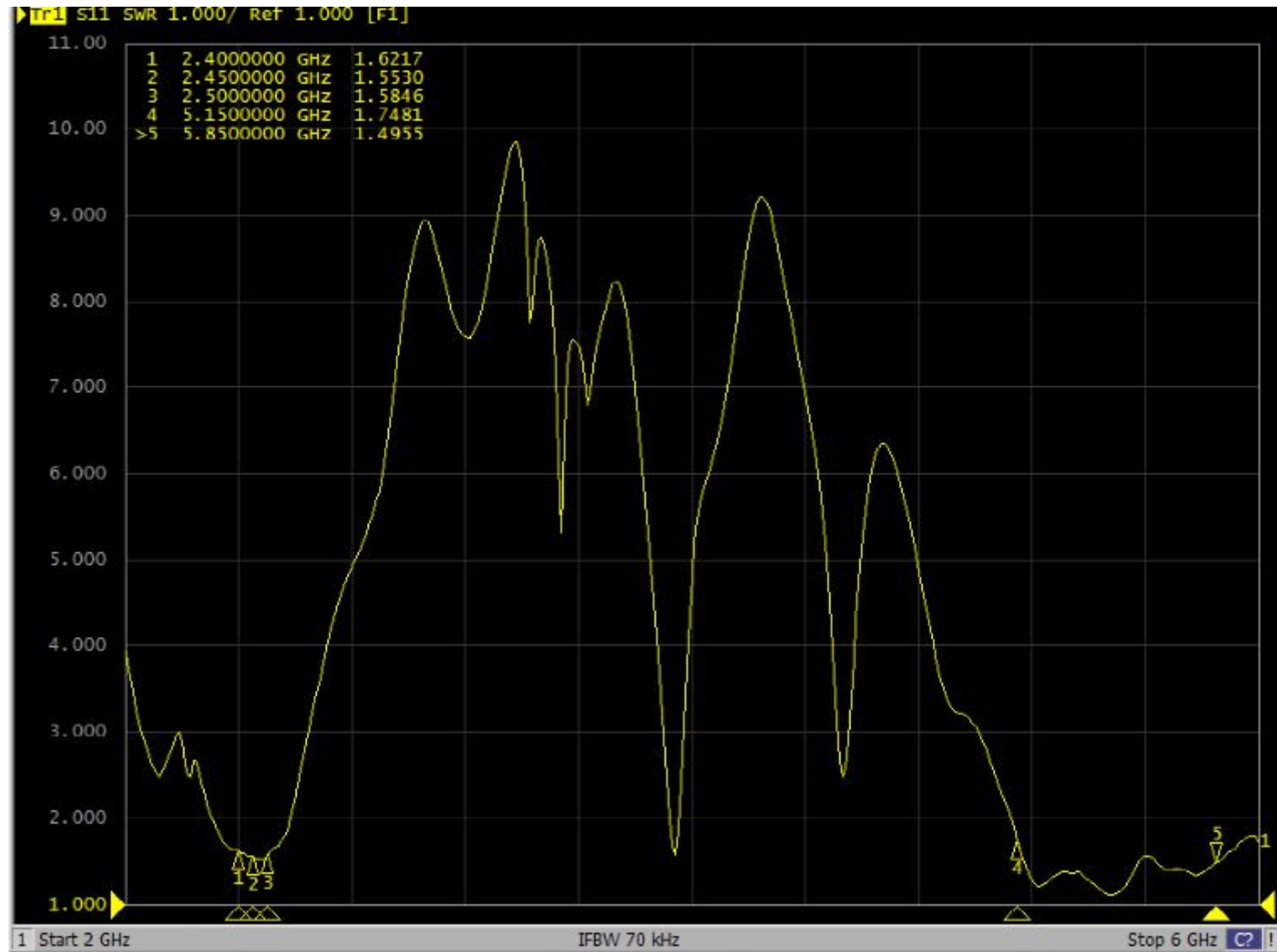


2. 天线测试条件

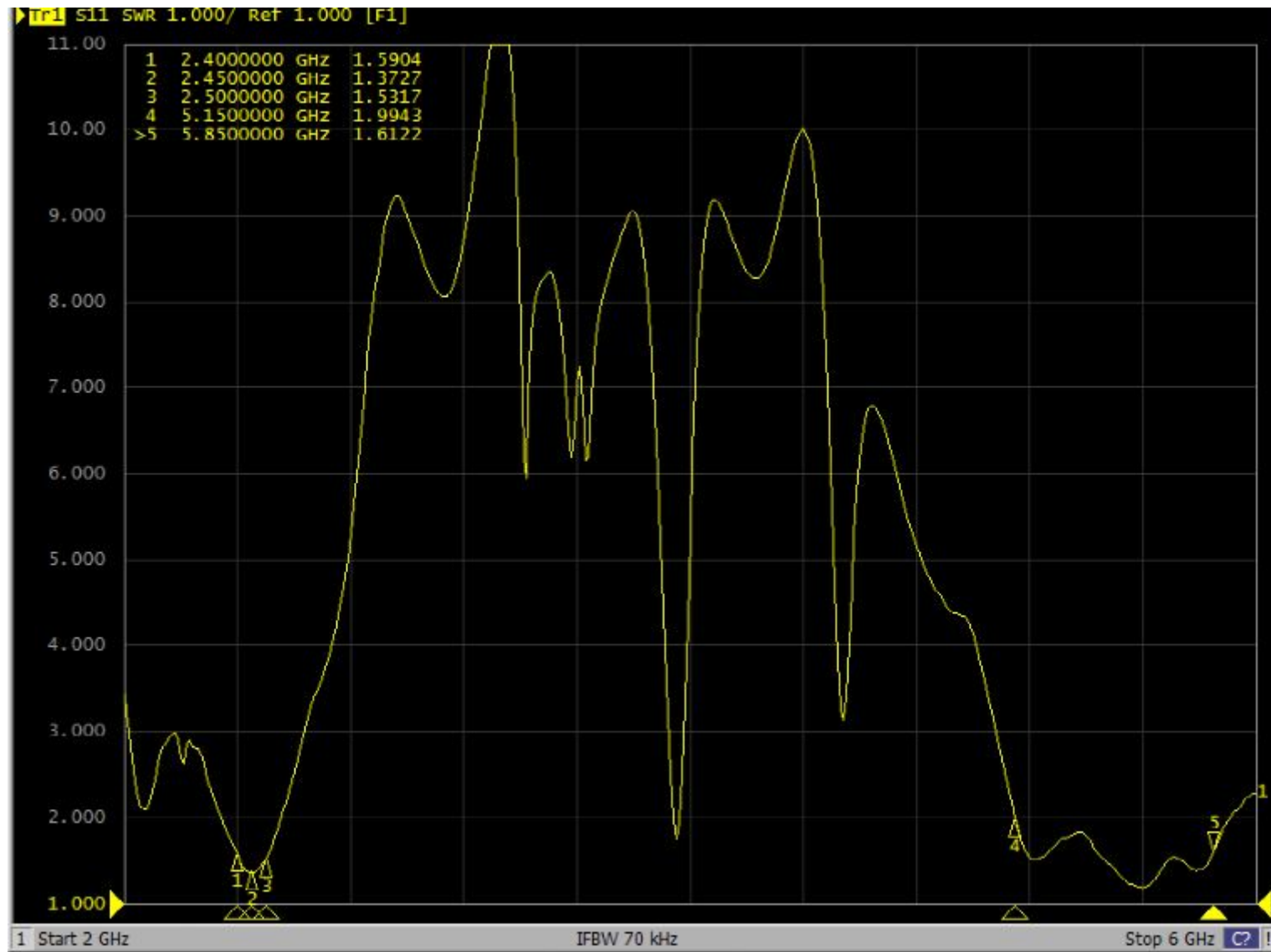


测试暗室: Satimo SG24(4m*4m*4m)

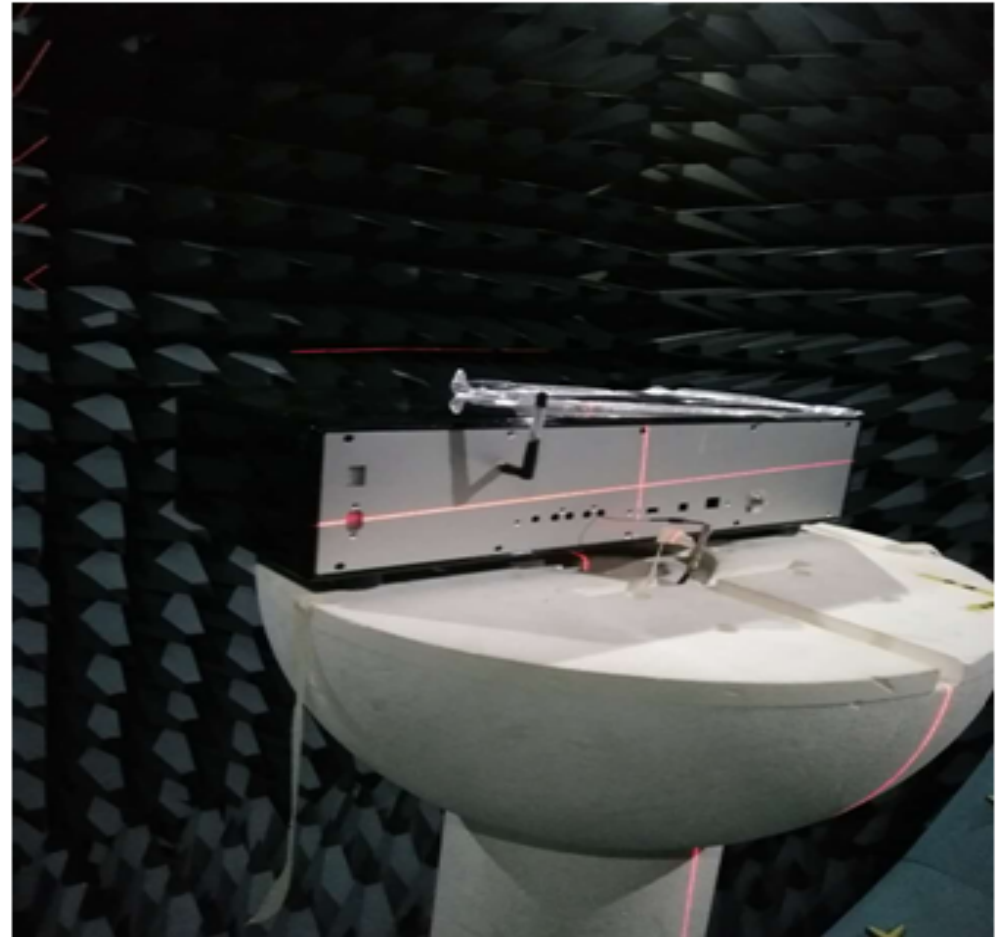
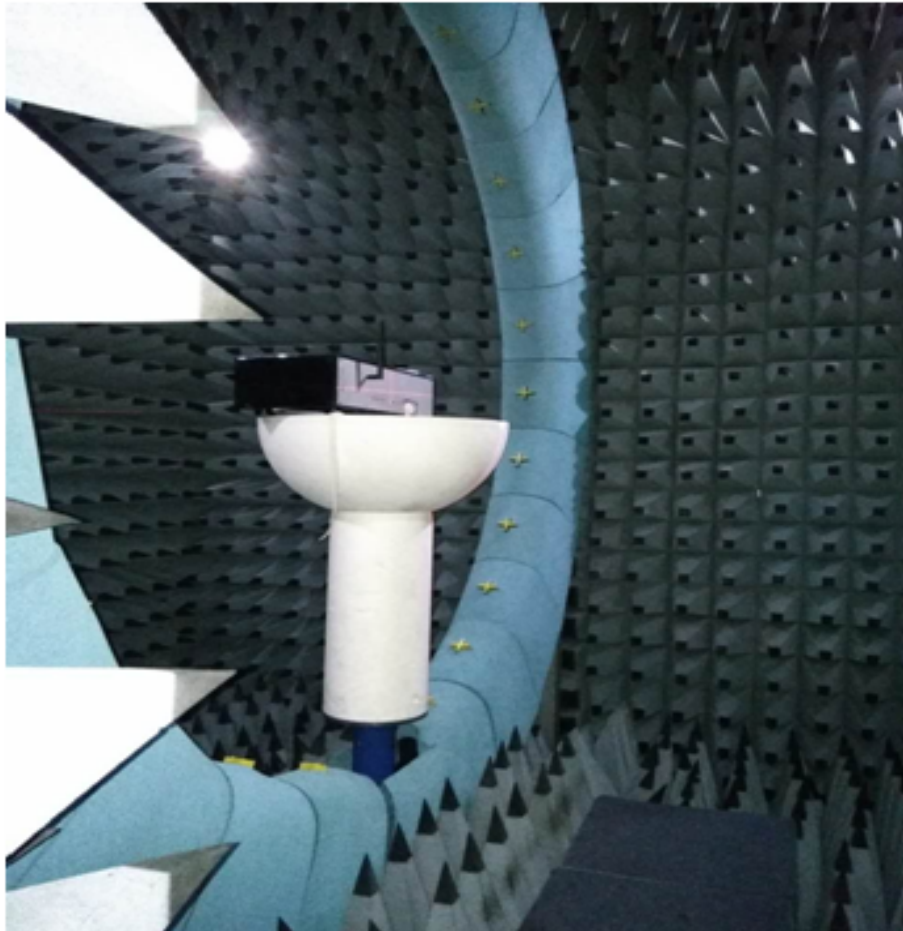
Test Result: VSWR-Ant 1



Test Result: VSWR-Ant 2



Antenna Measurement

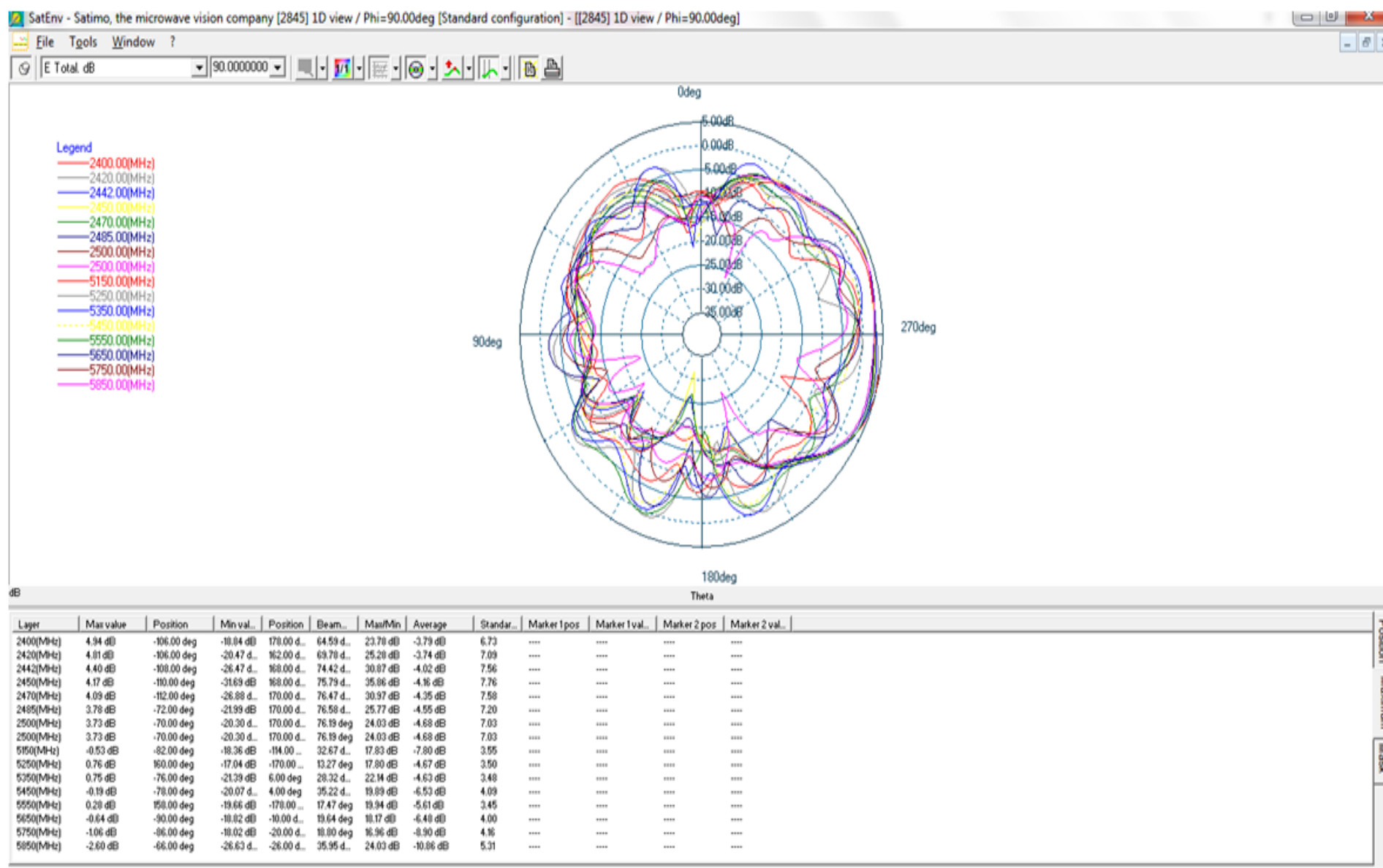


Test Result:Efficiency & Peak Gain

Frequency	Efficiency	Gain
2400000000	60%	2.94
2420000000	62%	2.91
2442000000	59%	2.65
2450000000	58%	2.53
2470000000	69%	2.62
2485000000	56%	2.52
2500000000	54%	2.52
5150000000	51%	3.29
5250000000	57%	3.60
5350000000	65%	3.11
5450000000	52%	3.79
5550000000	51%	3.50
5650000000	58%	3.76
5750000000	51%	3.43
5850000000	59%	3.54

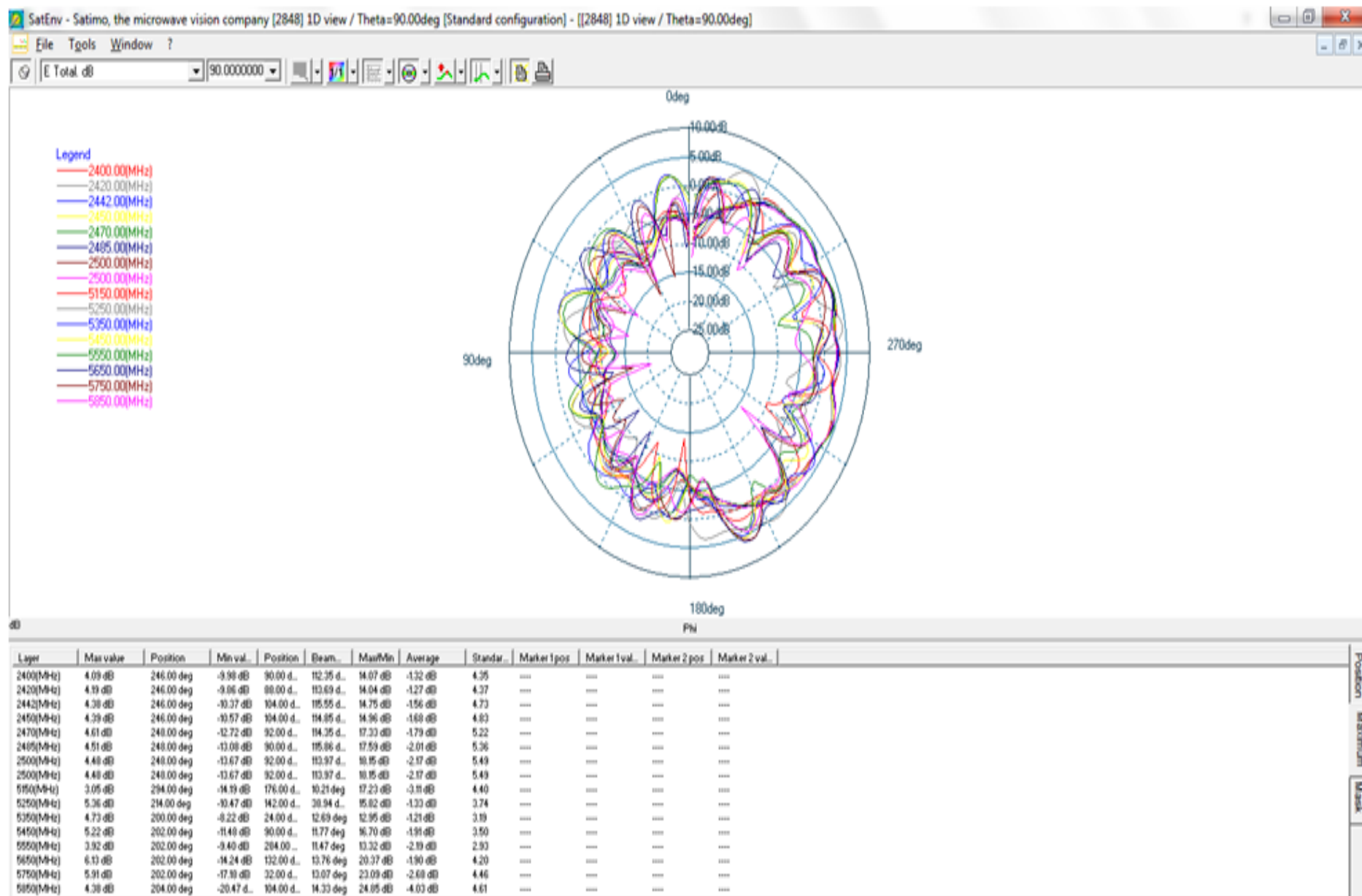
Test Result:2D Radiation Pattern

Ant 1



Test Result:2D Radiation Pattern

Ant 1



无锡源达电工材料有限公司

WUXI YUANDA ELECTRICAL MATERIAL CO., LTD.

中国江苏省江阴市青阳镇南陈村 邮编 214401

Nachen, Qingyang Town, Jiangyin City 214400, Jiangsu, China

客户/ Customer: 苏州点正电子科技有限公司

客户料号/ Customer P/N: YD178

规格书

Specification

50 Ω (FEP) 绝缘射频电缆

50 Ω FEP Insulated Coaxial Cable

YD178 系列

YD178 SERIES

编制/ Signed by: cool lai

编制日期/ Date: 22th April 2009

无锡源达电工材料有限公司

WUXI YUANDA ELECTRICAL MATERIAL CO., LTD.

中国江苏省江阴市青阳镇南陈村 邮编 214401
Nachen, Qingyang Town, Jiangyin City 214400, Jiangsu, China

1. 适用范围:

Scope
本规格书制定了 50Ω FEP 绝缘射频电缆 YD178 系列的结构和电气特性。
This specification covers the construction and the electrical properties of YD178 series of 50Ω FEP Insulation Coaxial Cable.

2. 结构/Construction: 单位/Unit:mm

项目/Item		详细资料/Details
导体/Conductor	材料/Material	镀银铜线/Silver-coated Copper Wire
	构成(根/mm) Composition(No./mm)	7/0.102
	标称直径/Nom. O. D (mm)	0.306±0.03
绝缘层 /Insulation	材料/Material	/聚四氟乙烯/PTFE
	标称绝缘厚度/Nom. Thick (mm)	0.275
	标称外径/Nom. O. D (mm)	0.86±0.03
屏蔽层/Shield	材料/Material	镀银铜线/ Silver-coated annealed copper wire
	构成/Composition	0.10 单线编织/Single Braid of 0.10
护套/Jacket	材料/Material	聚全氟乙丙烯(*颜色)/FEP(*color)
	标称护套厚度/Nom. Thick (mm)	0.25
	标称外径/Nom. O. D (mm)	1.80±0.08
	颜色/Color	按与客户确认的颜色/According to corresponding have approved by the suppliers and customers

3. 电气特性(20℃时)/Electrical Properties(at 20℃)

项目/Item	单位/Unit	详细资料/Details	
导体电阻/Conductor Resistance	Ω/km	Max. 800	
绝缘电阻/Insulation Resistance	MΩ.km	Min. 500	
耐压强度/Dielectric Strength	V(AC)/min	1000	
静电容/Capacitance	pF/m	105(1kHz)	
特性阻抗/Characteristic Impedance	Ω	50±2.0	
衰减/Attenuation	dB/m	1GHz	1.70
		2GHz	2.42
		3GHz	3.08

无锡源达电工材料有限公司

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中国江苏省江阴市青阳镇南陈村 邮编 214401

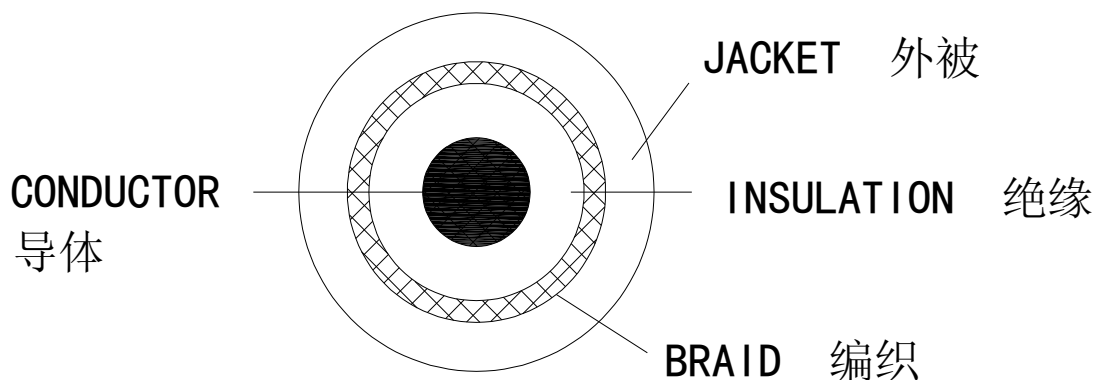
Nachen, Qingyang Town, Jiangyin City 214400, Jiangsu, China

		4GHz	3.63
		5GHz	4.15
		6GHz	4.80
耐温 Temperature range	°C	-55-150 (FEP), -55-200 (PTFE)	
驻波比/Standing wave (0-6GHz)	/	≤1.35	

4. 包装 Packing

标准单位包装长度为 400 米/盘, 每盘最多允许 3 个接头, 接头最短长度 20 米, 在搬运过程中不能损坏包装.

Standard unit length of finished cable shall be 400m on reel, frequency of joint max. 3/reel, the mini length is 20m. The finished cable shall be packed not be damaged during transportation



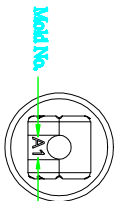
本产品有时不适合车载用途的情况也有,所以使用前请先和本公司业务部门进行商谈.

This product is not suitable for automobile application in some cases. Please contact with our sales department before you use this product.

规格书完

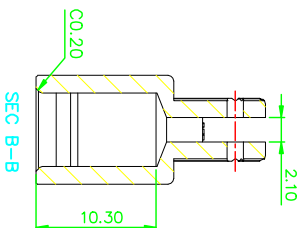
End of specification

CDY-0010

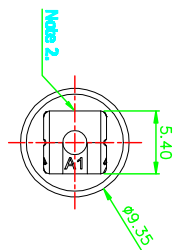


Mod No.

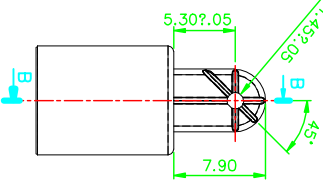
Mod Case No.



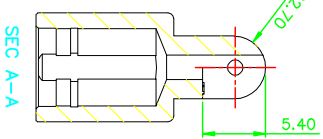
SEC B-B



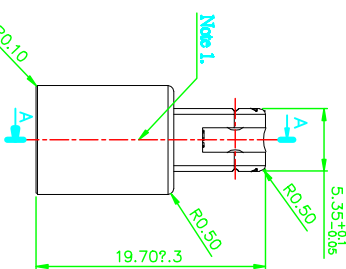
Note 2.



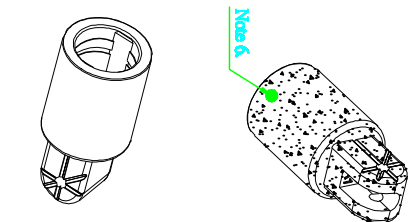
SEC A-A



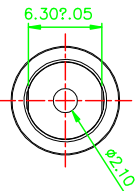
SEC A-A



Note 1.



Note 6.

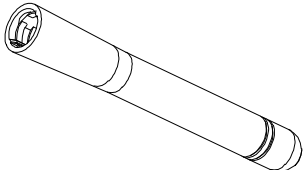
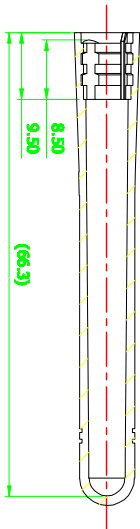
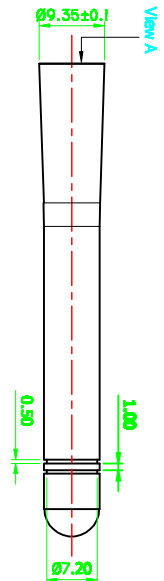
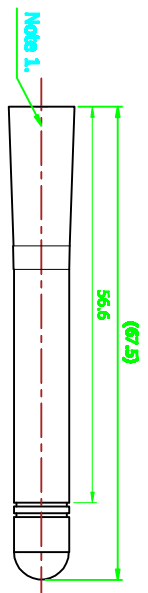
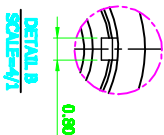
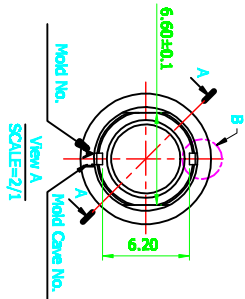


- Note :
- 1.分装线
 - 2.涂装位置
 - 3.产品不可有毛边、油污、料花
 - 4.涂装膜厚度尺寸按侧面公差内
 - 5.[X...]为重点管控尺寸
 - 6.表面处理, 吸花 MT-11010.
 - 7.模具钢上 "CDY-XXXX-X"

版本		日期	描述
A		04/08-2015	新产品

客户料号		客户名称		规格		比例		大小		页数		档案名称		备注	
NO		客户料号		规格		比例		大小		页数		档案名称		备注	
1		C200-031056-A		CYP-300010002-AB		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT (YL)		黑色	
2		Q30-030001-A		CYP-300010002-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		黑色	
3		C200-031013-A		CYP-300010002-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		黑色	
4		PTL-EDA8709-006		CYP-300010002-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		黑色	
5		2130101153		CYP-300010002-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		黑色	
6		121-018-02010200		CYP-300010002-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		黑色	
7		N-121-018-02010200		CYP-300010002-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		黑色	
8		C200-031024-A		CYP-300010002-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		黑色	
9		PTL-EDA8709-003		CYP-300010024-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		白色	
10		2121000441		CYP-300010024-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		白色	
11		Q30-030012-A		CYP-300010024-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		白色	
12		H150-6015-12R		CYP-300010024-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		白色	
13		C8518-510003-A		CYP-300010024-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		白色	
14		PTL-EDA8709-008		CYP-300010901-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		白色	
15		PTL-EDA8709-015		CYP-300010908-AA		CYP-300010XXX-AX		A 4		1 0 1		PC+PBT		白色	

CDY-0379

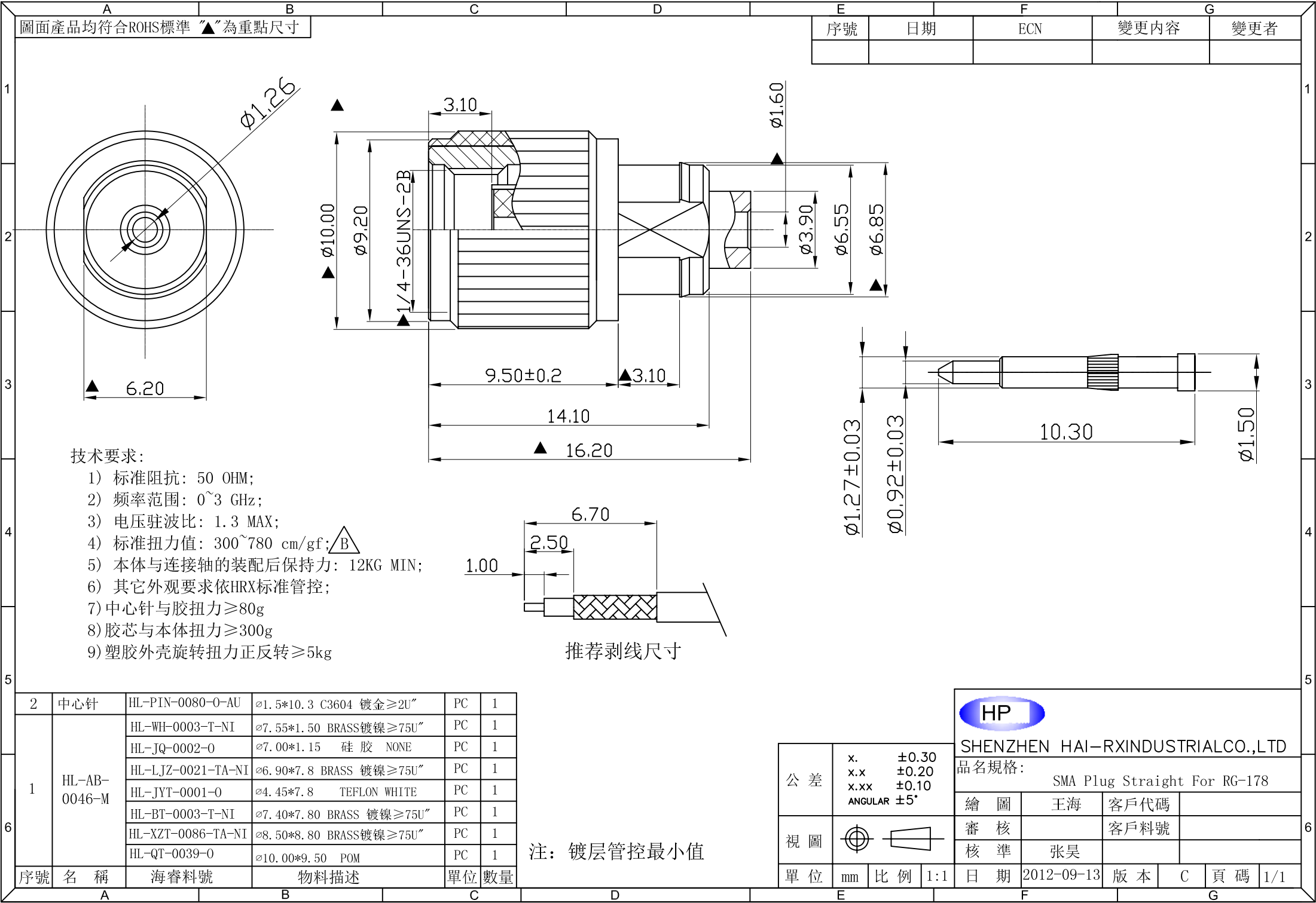


版本	日期	描述
A	06/13-2015	新产品

12									
11									
10									
9									
8									
7									
6									
5									
4									
3									
2									
1									
NO									
客户料号									
客户料号									
材料									
色号									
备注									

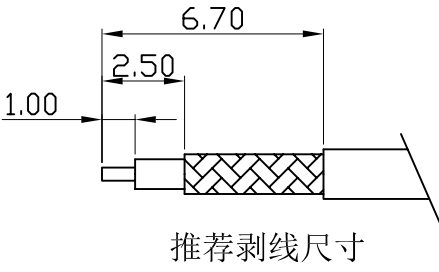
- Note:
- 分模线.
 - 注塑点位置.
 - 产品不可有毛边、缩水、料花.
 - 焊接模倒流尺寸在侧面公差内.
 - 尺寸均为基准尺寸.
 - 表面处理: 喷花 MT-1100A.
 - 模具图上: CDY-3003-X

III	±2.0	标准	客户	规格	杆套	φ9.35*67.5mm
II	±1.0	标准	客户	规格	杆套	φ9.35*67.5mm
I	±0.5	标准	客户	规格	杆套	φ9.35*67.5mm
.I	±0.2	标准	客户	规格	杆套	φ9.35*67.5mm
.II	±0.1	标准	客户	规格	杆套	φ9.35*67.5mm
III	±0.1	标准	客户	规格	杆套	φ9.35*67.5mm



技术要求:

- 1) 标准阻抗: 50 OHM;
- 2) 频率范围: 0~3 GHz;
- 3) 电压驻波比: 1.3 MAX;
- 4) 标准扭力值: 300~780 cm/gf; $\triangle B$
- 5) 本体与连接轴的装配后保持力: 12KG MIN;
- 6) 其它外观要求依HRX标准管控;
- 7) 中心针与胶扭力 $\geq 80g$
- 8) 胶芯与本体扭力 $\geq 300g$
- 9) 塑胶外壳旋转扭力正反转 $\geq 5kg$



推荐剥线尺寸

2	中心针	HL-PIN-0080-0-AU	$\phi 1.5 \times 10.3$ C3604 镀金 $\geq 2U''$	PC	1
1	HL-AB-0046-M	HL-WH-0003-T-NI	$\phi 7.55 \times 1.50$ BRASS 镀镍 $\geq 75U''$	PC	1
		HL-JQ-0002-0	$\phi 7.00 \times 1.15$ 硅胶 NONE	PC	1
		HL-LJZ-0021-TA-NI	$\phi 6.90 \times 7.8$ BRASS 镀镍 $\geq 75U''$	PC	1
		HL-JYT-0001-0	$\phi 4.45 \times 7.8$ TEFLON WHITE	PC	1
		HL-BT-0003-T-NI	$\phi 7.40 \times 7.80$ BRASS 镀镍 $\geq 75U''$	PC	1
		HL-XZT-0086-TA-NI	$\phi 8.50 \times 8.80$ BRASS 镀镍 $\geq 75U''$	PC	1
		HL-QT-0039-0	$\phi 10.00 \times 9.50$ POM	PC	1
序號	名稱	海睿料號	物料描述	單位	數量

注: 镀层管控最小值

公差	x. ± 0.30 x.x ± 0.20 x.xx ± 0.10 ANGULAR $\pm 5^\circ$
視圖	
單位	mm 比例 1:1

SHENZHEN HAI-RXINDUSTRIALCO.,LTD

品名規格: SMA Plug Straight For RG-178

繪圖	王海	客戶代碼	
審核		客戶料號	
核準	张昊		
日期	2012-09-13	版本	C
頁碼	1/1		