

TVPro300 Project Specification for antenna material requirements

Customer name: Great Wall Development

Customer product name: TVPro300

Product name: WIFI antenna assembly

Product specifications: PCB 40.30*8.00+coaxial/ 1.13 CABLE

/ single-head 4th generation half terminal

Material code:

Change content resume:

Serial number	Edition	State	Start and end date	Responsible person	Page number	Remarks
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Supplier's acknowledgement of signature:

Responsible Person/Date		IQC/Date	Review/Date	Approval/Date
MiniDis				
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The demanding party acknowledges the signature (please send it back after acknowledgement):

The decision of the demand side: ☐ Qualified ☐ Unqualified			
Development and Design Engineer/Date	SQE Engineer/Date	Head of Procurement/Date	Development Manager Approval/Date

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1. Brief account

1.1 Scope of application

This requirement stipulates TVPro300 technical requirements and materials requirements specification.

Root Required to apply At TVPro300 Antenna selection, testing and acceptance.

1.2 Basic information of the project

Antenna name:	TVPro300
Antenna frequencyRate:	WIFI:2. 4G. 5G
AerialTexture of wood:	PCB+ coaxial wire welding wire
AerialVersion:	V0.1

Electrical performance indicators ElectricalS PecificationSmall size	
Frequency Range Frequency Range (MHz)	2400-2500/5150-5850MHZ
Input Impedance Input Impendence (Ω)	50
Voltage standing wave ratio V.S.W.R	≤ 2.0
Refer toGain Gain Gain (DecibelI)	3.1
Polarization Form Polarization Type	Linear
Antenna typeAntenna Type	Dipole
Operating temperature Operating Temp	-40 ~ +85 Centigrade

2. Technical indicator requirements

2.1 Introduction of test items and equipment

Detailed list	Test items	Equipment
Active testing	TRP, TIS	Integrated tester, microwave dark room

2.2.1 Test instructions

Test tools: Agilent 8960 comprehensive tester, R&S CMW500, Full-wave far-field ETS dark room, high-precision positioning system, its controller and computer with automatic test program

Test environment: Temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Test method: DUT to HThe surface is fixed in the center of the turntable, on the same horizontal line as the center of the speaker antenna.

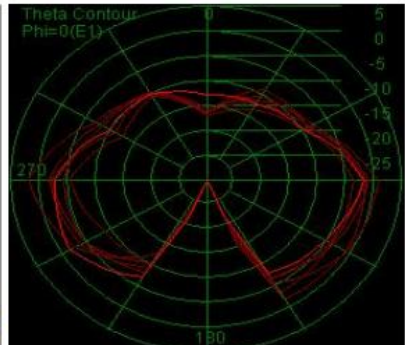
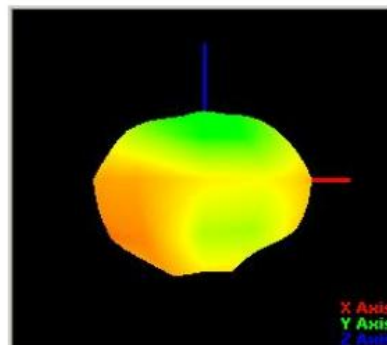
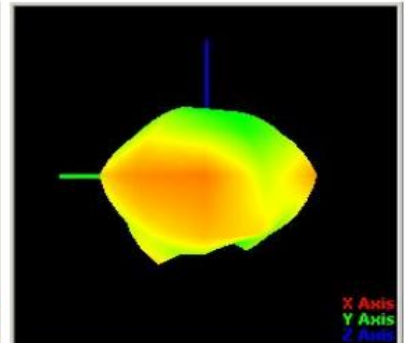
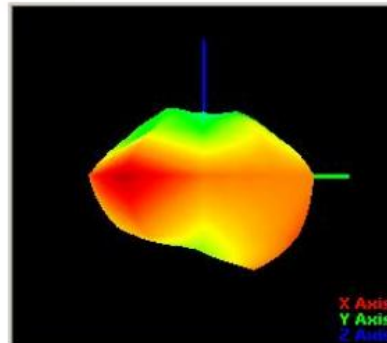
Positioning system makes DUT Rotate the whole sphere to meet high-precision three-dimensional positioning. Radio frequency instruments, turntable controllers and automatic test software Personal computer Pass GPIB Interface for communication.

2.2.2 2.4G/5G antenna passive parameters



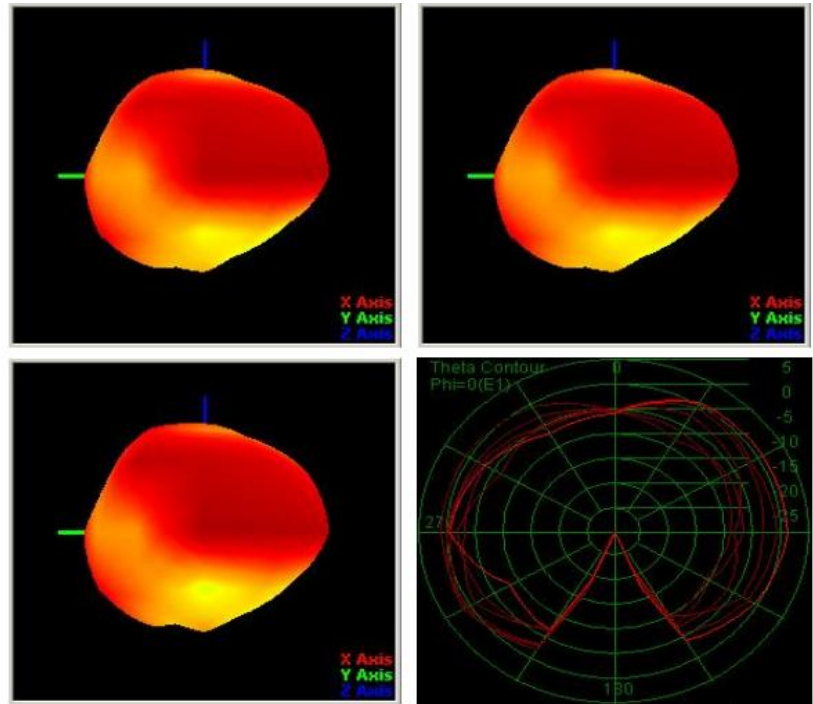
2.2.3 Passive parameters of 2.4G antenna

Freq. (MHz)	Efficiency (%)	Gain (dBi)
2400.0	35.5%	1.82
2410.0	42.8%	1.59
2420.0	45.3%	1.61
2430.0	51.4%	2.03
2440.0	47.8%	2.44
2450.0	42.0%	2.86
2460.0	42.6%	2.29
2470.0	40.0%	1.25
2480.0	39.1%	1.09
2490.0	37.0%	1.79
2500.0	34.4%	1.86



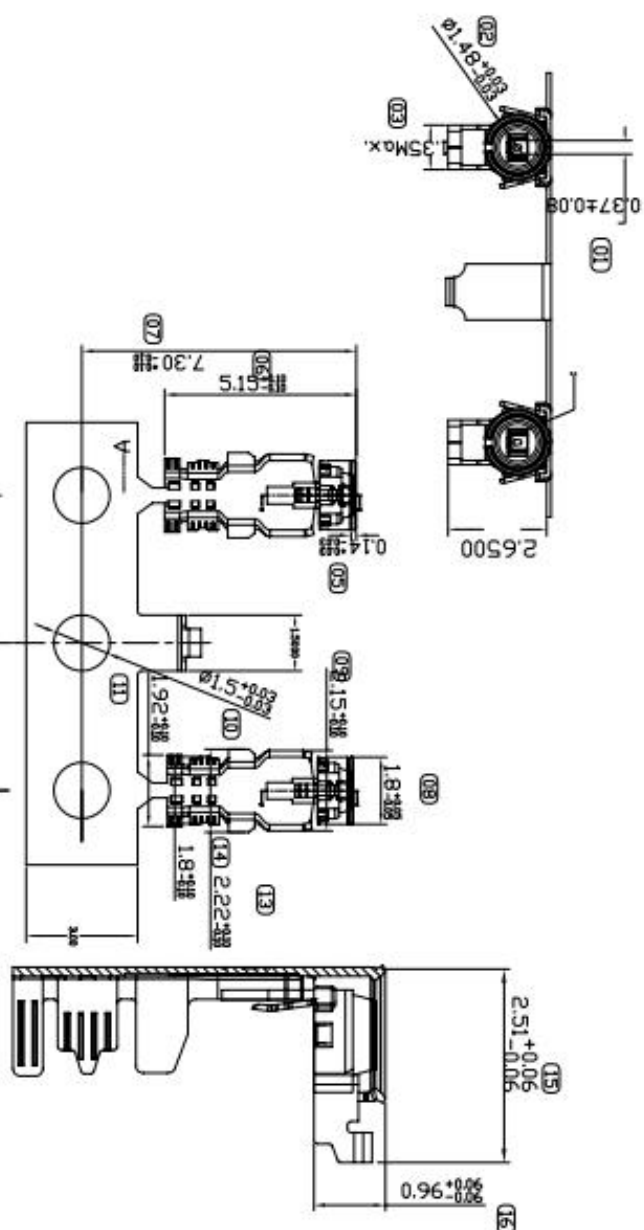
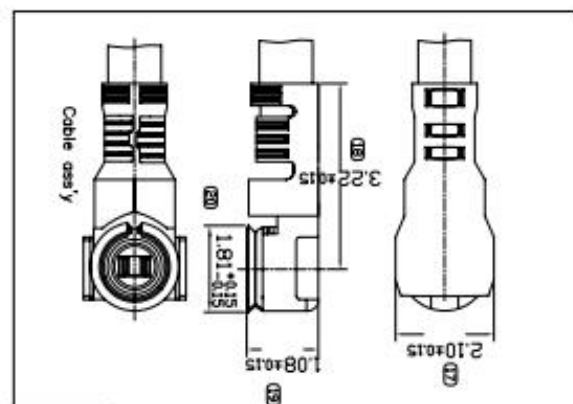
2.2.4 Passive parameters of 5G antenna

Freq. (MHz)	Efficiency (%)	Gain (dBi)
5100	39.7%	2.45
5200	43.5%	2.41
5300	44.3%	2.56
5400	55.7%	2.68
5500	55.3%	2.65
5600	44.7%	2.57
5700	42.8%	2.19
5800	38.9%	2.04



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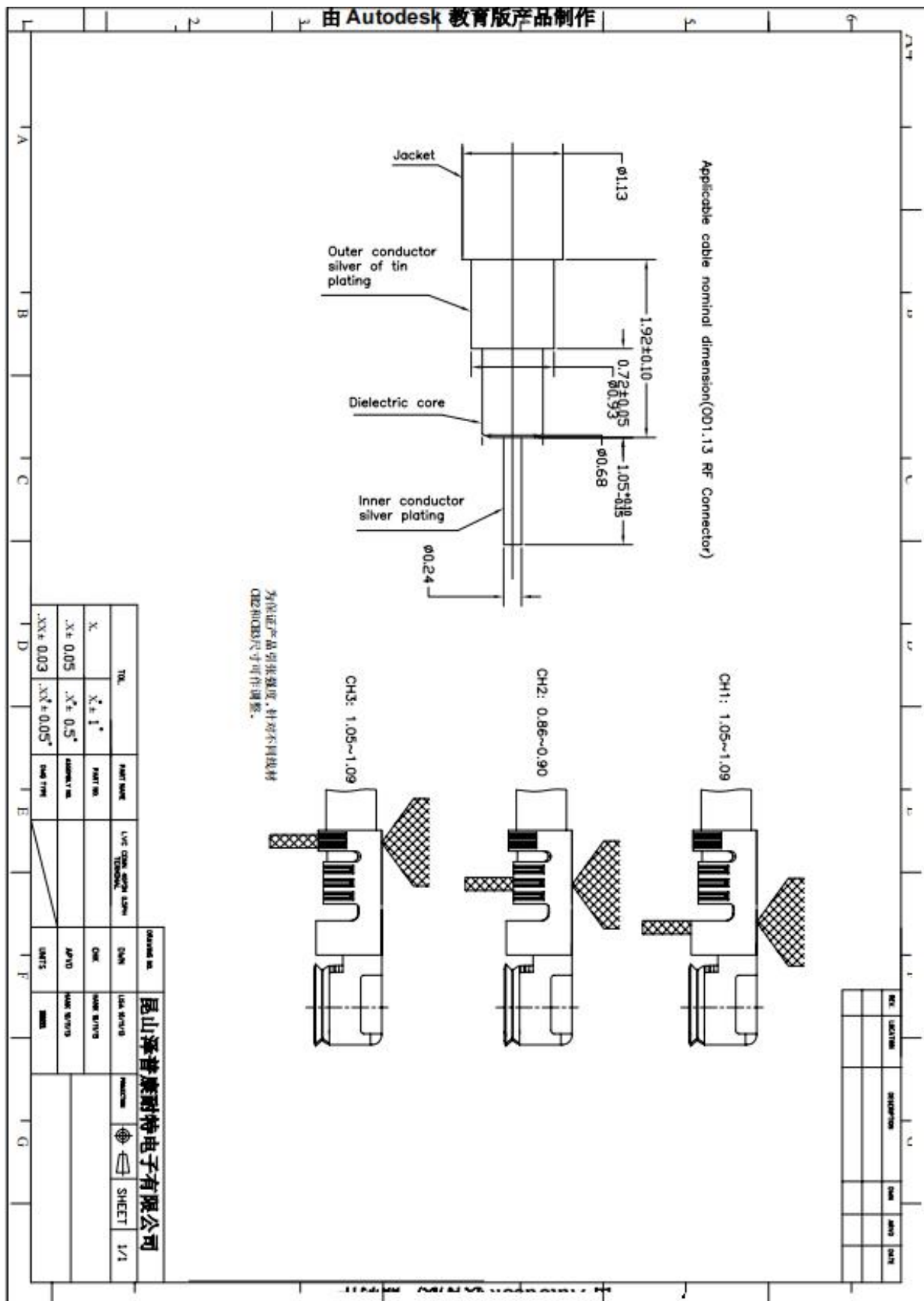
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1. 材料:

- 1.1. 塑胶材料: PA66, 黑色;
- 1.2. 端子材料: 铜青铜/3210-4L T=0.08mm 表面镀金;
- 1.3. 外壳材料: 铜青铜/3210-4L T=0.12mm 表面镀金或镀银;
2. 端子接触面不得有划伤、氧化、脏污, PIN孔内毛边不得大于0.05mm;
3. 产品表面不得有脏污、刮伤、裂纹、色差等不良;
4. 产品性能:
 - 4.1. 接触阻抗: 20mΩ Max.
 - 4.2. 耐电压: 200V AC, 1 Min.rtc;
 - 4.3. 绝缘阻抗: 500MΩ Min.
 - 4.4. 插拔耐久性: 300次 Min.
5. 标有  的尺寸为符合DIN而测量的尺寸;
6. 标有  的尺寸为重要管控尺寸; 标有  的尺寸为关键管控尺寸.

		DRAWING NO.				
TOL.		PART NAME		QUANTITY		
X_1	$X_1 \pm 1^{\circ}$	APPT. NO.			SHEET	
$X_2 \pm 0.05$	$X_2 \pm 0.5^{\circ}$	ASSEMBLY NO.	APPRO			DATE
$X_3 \pm 0.03$	$X_3 \pm 0.05^{\circ}$	ENG. TYPE				
			UNITS			mm



4.List of materials

深圳昱晟通讯设备有限公司
YUSHENG COMMUNICATION TECHNOLOGY CO.,LTD.
355007 (TVPro300)-BOM表

版次: R-A

客户: 355

机种: 355007

文件编号

制订日期: 20221124

项次	料 号	品 名	类型	版本	规格	材 质	表面处理	颜色	单位	数量	工 艺
1	355007-1A	WIFI天线组件	Z	T-A	40.30*8.00*2.80MM				PCS	1	焊接+贴合
1.1	355007-1A-01	WIFI-PCB	Z	T-A	40.30*8.00*1.00MM	FR1 T=1.0MM	锡镍	绿色	PCS	1	焊接
1.2	355007-1A-02	同轴线	Z	T-A	1.13*220MM	1.13 CABLE+单头4代半端子	端子镀金	黑色	PCS	1	焊接
1.2	355007-1A-03	3M背胶	Z	T-A	39.50*7.20*0.1MM	3M-9448A		白色	PCS	1	贴合

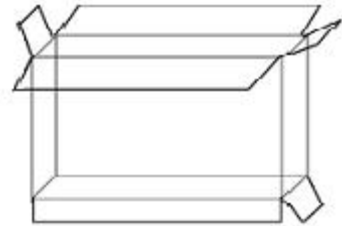
类型: W:外购 B:半成品 Z:成品 C:客供

确认:

审核:

制作: 冯继武

5.Schematic of packaging

Packaging method diagram																
Product name	Aerial															
Material number	355007															
Project model	TVPro300															
Packing details	Carton size 1: 270*260*200MM Carton size 2: 260*200*200MM Carton size 3: Based on order quantity/volume															
	Packing method	Packaging by order quantity														
	Total number of boxes	Packaging by order quantity														
Label requirements	Label size 1: Universal 100*100mm Label size 2: According to the customer's request	深圳市昱晟通讯设备有限公司 <table><tr><td>客户名称</td><td>*****</td></tr><tr><td>订单编号</td><td>*****</td></tr><tr><td>项目名称</td><td>*****</td></tr><tr><td>物料编码</td><td>*****</td></tr><tr><td>数 量</td><td>***pcs</td></tr><tr><td>出货日期</td><td>****年**月**日</td></tr><tr><td colspan="2">地址：深圳市光明新区光明大道南太云创谷园区2栋4楼4A</td></tr></table>	客户名称	*****	订单编号	*****	项目名称	*****	物料编码	*****	数 量	***pcs	出货日期	****年**月**日	地址：深圳市光明新区光明大道南太云创谷园区2栋4楼4A	
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地址：深圳市光明新区光明大道南太云创谷园区2栋4楼4A																
Precautions																
1. Due to the quantity limit of the order, the packing method of each material is selected according to the total quantity of the order or the physical volume.																
2. Storage temperature: room temperature																
3. Storage condition: store in a cool and dry place																