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产品实物图 PRODUCT DRAWING

(备注：此页请附上物料的实物图片(必须是该料号实物图片)，包括正视图、侧视图)Remarks: Please attach the actual picture of the material (must be the actual picture of the material number) on this page, including front view and side view



工程图 ENGINEERING DRAWING

要求Requires:

1.工程尺寸说明 Project size description

FPC 49.88*19.25mm、FR1.13Cable 400mm 、IPEX4、EVA H13mm

2.材质 Material

FPC、CABLE、IPEX、EVA

3.工艺注意事项 Process Notes

焊线处不可出现漏焊，虚焊；FPC表面不可有锡渣。No leakage welding at welding line; there shall be no tin slag on FPC surface.

4.配件清单 Accessories list

FPC*1PCS、CABL 1PCS、IPEX4 1PCS、EVA 1PCS

5.环保等级：请在下面表格对应的符合标准下打钩√，(KTC默认要求符合RoHS/REACH，HF及TSCA未特殊要求项)

Environmental protection level: Please tick √ under the corresponding compliance standards in the

环保标准	RoHS	REACH	TSCA	HF	VOC	Other
是否符合	√	√				

6.单位净重Unit net weight: (重点标识出来)

2.5g

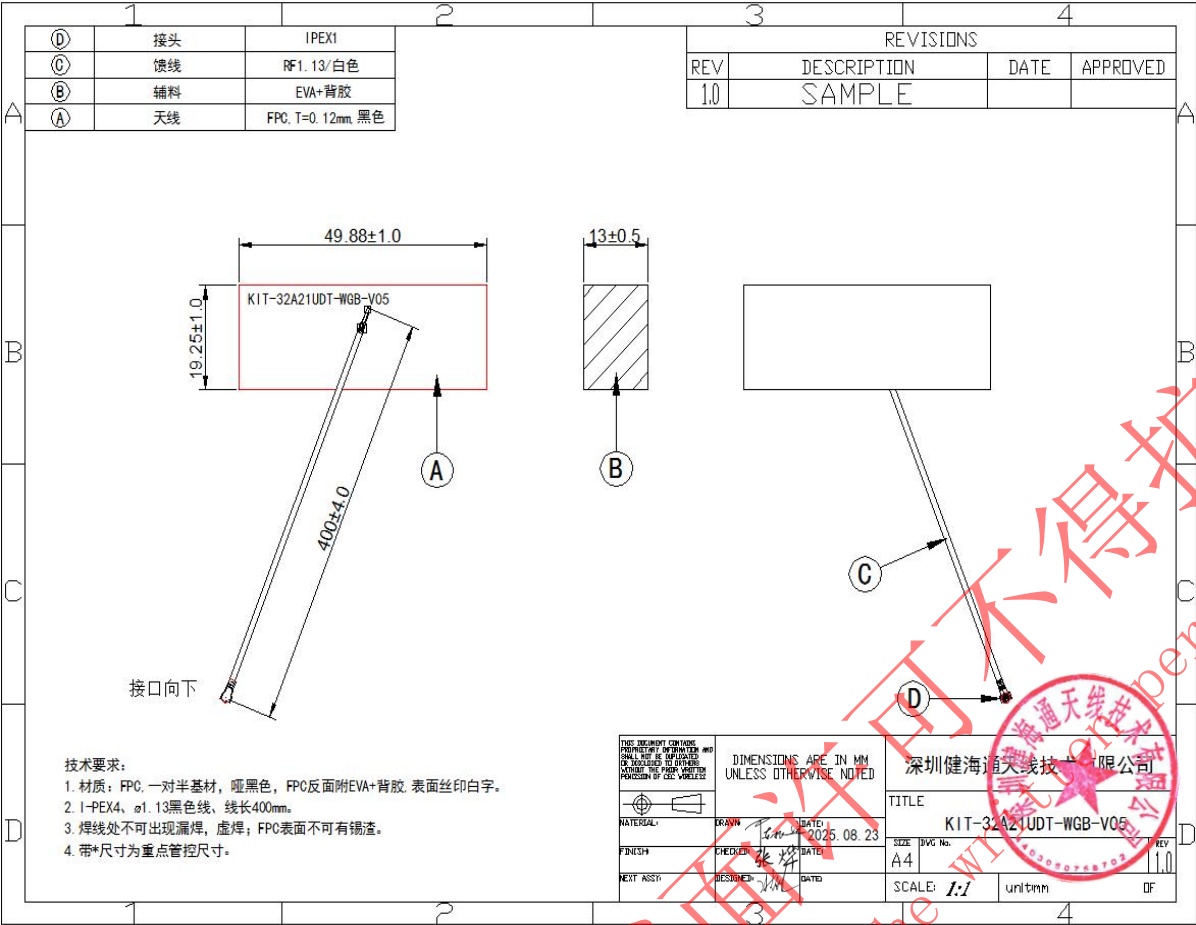
8.装箱数量Qty 待定

9.工作温度范围operating temperature range(至少满足-10℃~+50℃)

保存温度范围Storage temperature range(至少满足-30℃~+60℃)

工作温度范围operating temperature range -20~60℃

保存温度范围Storage temperature range -30~60℃



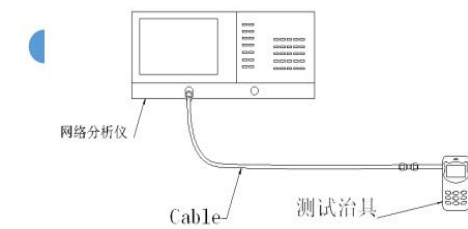
KTC机密文件 未经书面许可不得扩散
KTC confidential do not spread without the written permission

天线规格说明书 ANTENNA PASSIVE/ACTIVE PERFORMANCE

要求 Requirement:

1.无源性能: 电压驻波比、回波损耗、天线效率、增益、1D方向图、3D方向图
Passive performance: VSWR,Return Loss,Antenna Efficiency,Gain,1D Radiation Pattern and 3D Radiation Pattern

S11参数



S11测试方法说明

测试设备:

网络分析仪(E5071C 30k-8.5Ghz)

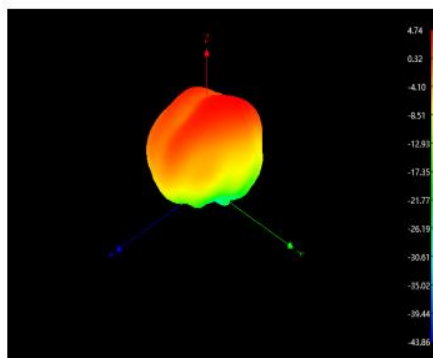
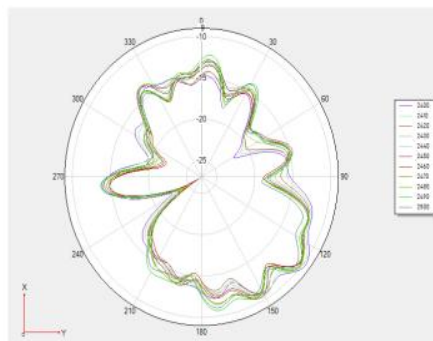
测试方法:

用一根50欧姆CABLE电缆从仪器测试端口导出,使用校准件校准后连接样机,制具的SMA接头,记录相关频点对应的回波损耗和驻波比。

频率 (MHz)	2400	2483	5150	5850
驻波比	1.31	1.35	1.42	1.22

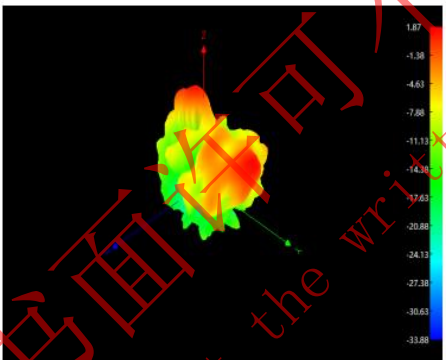
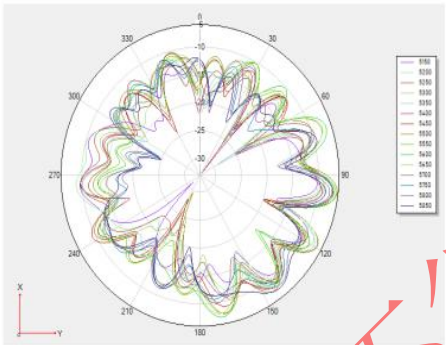
WIFI天线无源参数
2.4G

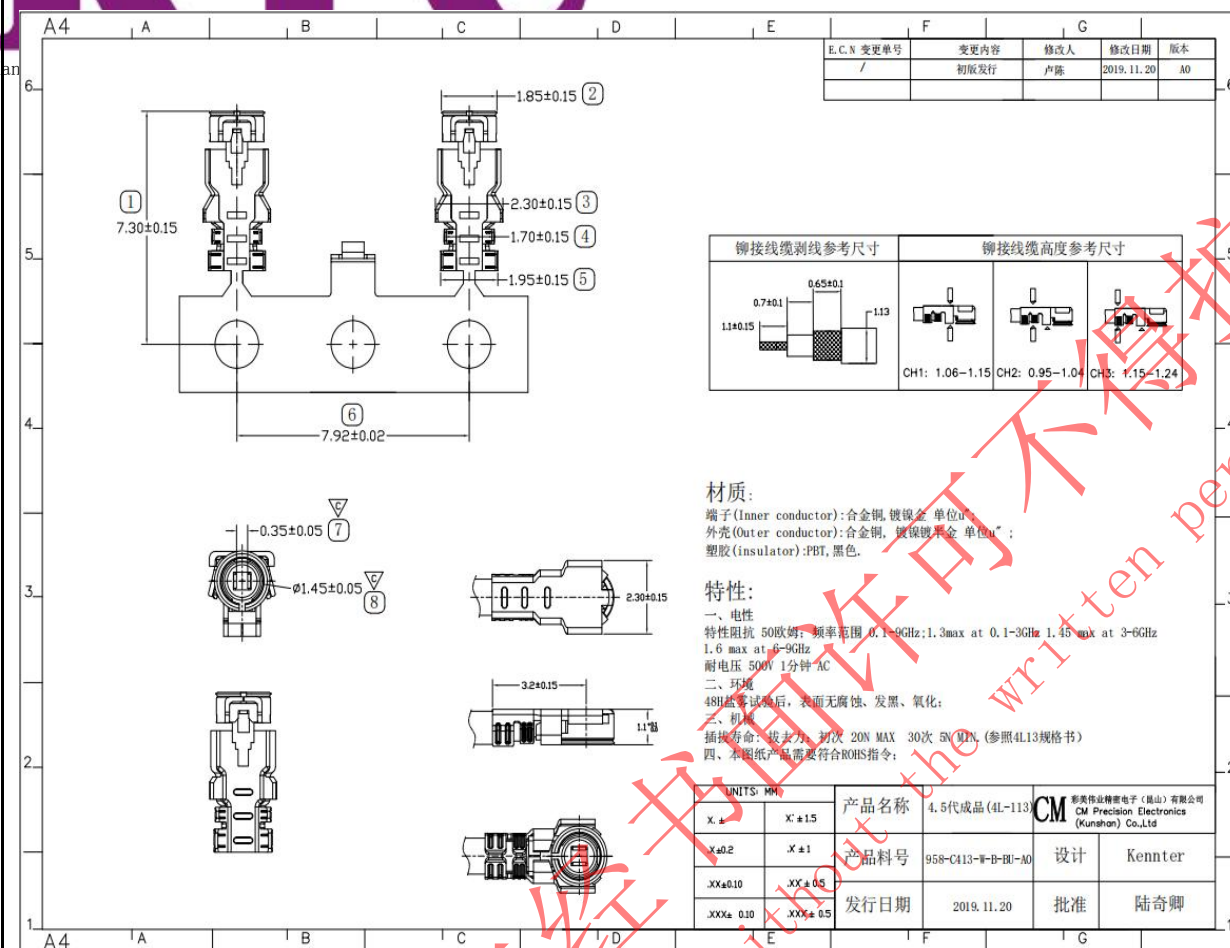
Frequency / MHz	Efficiency / %	Gain/ dB
2400	44.66	5.07
2410	43.3	5.02
2420	42.46	4.74
2430	42.36	4.99
2440	44.95	5.16
2450	44.17	5.18
2460	42.36	4.97
2470	41.63	4.94
2480	42.93	5.07
2490	41.81	4.95
2500	39.93	4.62



WiFi天线无源参数
5.8G

Frequency / MHz	Efficiency / %	Gain/ dB
5150	16.05	0.79
5200	17.37	1.48
5250	18.13	1.87
5300	18.22	1.97
5350	17.09	1.84
5400	17.24	1.69
5450	18.13	1.41
5500	18.79	1.39
5550	17.93	0.67
5600	18.62	0.87
5650	19.28	1.14
5700	18.93	1.28
5750	19.03	1.87
5800	19.1	2
5850	18.52	1.94





技术要求 Technical requirements:

1. 材质说明 (铜材型号/厚度) Material description (copper model/thickness): C5210 T=0.20±0.005mm
2. 表面处理 (电镀材质) Surface treatment (electroplating material): 镀镍, 镀金 Nickel plating, nickel plated with gold;
3. 工作温度 Operating temperature: -40℃~90℃
4. 端子拔出力 (测试前/测试后) Un-mating force (initial/after test): 综合拔去力初次: 9.4N, 30次后: 6.3N
5. 压接强度 Crimp strength:
6. 额定电压 Rating voltage: AC 60V rms
7. 额定频率 Rating frequency: DC~9GHz
8. 接触电阻 (测试前/测试后) (内导体/外导体) Contact resistance(initial/after test)(main contact/ground contact): 中心
9. 绝缘电阻 Insulation resistance: 试验前: 10, 000MΩ Min; 试验后: 10, 000MΩ Min
10. 介质耐压 Dielectric withstand voltage:
11. 耐久性 Durability: 中心导体试验前: <5.3mΩ、试验后: <5.7mΩ; 外部导体试验前: <5.9mΩ 试验后: <6.45mΩ
12. 驻波比 (接端子SMA适配头测试) VSWR(Mated with SMA adapter): 0.1~3GHz 1.3 以下, 3-6GHz 1.5 以下, 6-9GHz 1.9 以

测试报告Test report

要求Requirement:	
1. 接触电阻 Contact resistance: 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω MAX.,after test ΔR 100m Ω MAX.	
2. 绝缘电阻 Insulation resistance: 大于1000兆欧姆 1000M Ω /KM ⁻¹ MIN.	
3. 耐受电压 D.W. Voltage: 200伏特交流不发生击穿起火花, 绝缘无异常 AC200V without creeping discharge, flashover, no insulation breakdown occur.	
4. 电压驻波比 VSWR: 端子VSWR $\leq 1.3@0.1\sim 3$ GHz、VSWR $\leq 1.5@3\sim 6$ GHz、VSWR $\leq 1.6@6\sim 9$ GHz Plug: 1.3MAX.@0.1~3GHz, 1.5MAX.@3~6GHz, 1.6MAX.@6~9GHz.	
5. 插拔力测试 Unmating force: 初始/30次循环 插拔力 ≥ 5 牛/3牛 Initial/30 cycles 5N MIN./3N MIN.	
6. 端子线端压接强度 Crimp strength: 大于等于15牛 15MIN.	
7. 耐久度测试 Durability: 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω MAX.,after test ΔR 100m Ω MAX.	
8. 机械振动测试 Vibration: 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω MAX.,after test ΔR 100m Ω MAX.	
9. 机械冲击测试 Shock: 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω MAX.,after test ΔR 100m Ω MAX.	
10. 热冲击测试 Thermal Shock: 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 绝缘电阻: 初始/测试后 ≥ 10000 兆欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω MAX.,after test ΔR 100m Ω MAX. Insulation resistance: Initial/after testing resistance 10000M Ω MIN	
11. 湿度测试 Humidity(Steady state): 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 绝缘电阻: 初始/测试后 ≥ 10000 兆欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω MAX.,after test ΔR 100m Ω MAX. Insulation resistance: Initial/after testing resistance 10000M Ω MIN	
12. 盐雾测试 Salt water spray: 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω MAX.,after test ΔR 100m Ω MAX.	
13. 温度老化测试 High temperature life: 内导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 20 毫欧姆。外导体接触电阻: 初始 ≤ 20 毫欧姆, 测试后电阻变化量 ≤ 100 毫欧姆 Contact resistance of inner contact: Initial 20m Ω MAX. , after test ΔR 20m Ω MAX. Contact resistance of ground contact: Initial 20m Ω	
14. 焊点质量 Solder ability: 标准: 超过95%的浸锡区域充分浸润, 锡洞无聚集且占比不超过锡面的5% Spec.:More than 95% of the dipped surface becomes wet and the pinhole that should not gather at one point is less	
15. 焊温承载力 Soldering heat resistance: 433~473开尔文1~2分钟, 533开尔文10秒, 无异常 1~2minutes@433~473K, 10 second@533K, no abonormality occur.	

PRODUCT SPECIFICATION

产品规格书

PRODUCT NAME 1.13 RF 四代连接器	DOCUMENT No:	Rev.	ZEPU
	DE1-PSRF-003	A	
	Approved	Checked	Prepared
	Robert Li 12/21'12	Robert Li 12/21'12	Max 12/21'12

1. SCOPE(范围)

This specification covers the requirements for product performance and test methods of RF Forth connector.

2. Parts NO, (产品型号)

Plug : ZP000134RF

Receptacle: ZP000134RFB

3. Product Shape, Dimensions and Material, (外观形状, 尺寸和材质)

Refer to the drawing.

4. Applicable cable, (适用的线规)

(1) Description (构成)

Inner conductor: AWG32(7/0.08), silver plating annealed copper wire

中心导体: AWG32(7/0.08)镀银软铜线

Dielectric core: Fluoro-plastics, diameter 0.68(+0.04, -0.02)mm, nominal thickness 0.22mm

绝缘中心: 塑脂, 外径 0.68(+0.04, -0.02)mm, 标准厚度 0.22mm

Out conductor: nominal diameter 0.93mm, silver plating annealed copper wire or tin plating annealed copper wire;

外部导体: 公称外径 0.93mm, 软铜线镀银或者镀锡;

Jacket: Fluoro-plastics, diameter 1.13(+0.04/-0.02)mm, nominal thickness 0.10mm

封皮: 塑脂, 外径 1.13(+0.04/-0.02)mm, 公称厚度 0.10mm

(2) Requirements (要求)

Characteristic impedance: 50(+2, -2)ohm by TDR method

特性阻抗: 50±2Ω (TDR)

Normal capacitance(Reference value): 97pF/m

额定电容量(参考值): 97 pF/m

Conductor resistance of inner conductor at 293K(20℃) : 520 ohm/km MAX.

293K(20℃) 中心导体阻抗: 520 ohm/km MAX

Insulation resistance: 1500 mega-ohm.km Min.

绝缘阻抗: 1500MΩ.km最小.

Dielectric withstand voltage: no breakdown at AC500V for 1 minutes

耐电压: AC500V. 1分钟间隔, 绝缘体无熔断现象;

5. Ratings, (额定值)

Rated voltage/电压-----AC60Vr.m.s

Nominal characteristic impedance/特性阻抗-----50 ohm

Frequency/频率范围-----DC~6GHz

VSWR/驻波比-----Plug: 1.3 Max. (0.1~3GHz), 1.5 Max. (3~6 GHz)

Receptacle: 1.3Max. (0.1~3GHz), 1.45 Max. (3~6 GHz)

Service Temperature/使用温度范围-----233K-363(-40℃~90℃)

6. Test and Performance, (测试和性能)

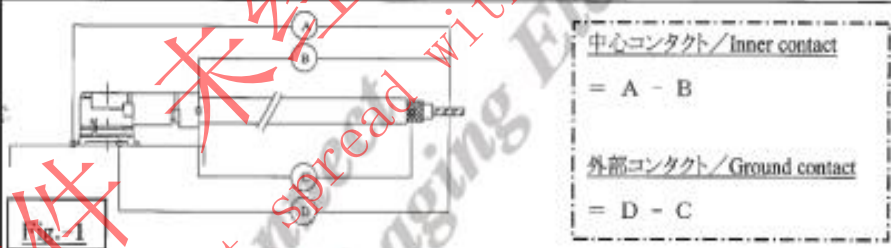
Test Condition/测试条件

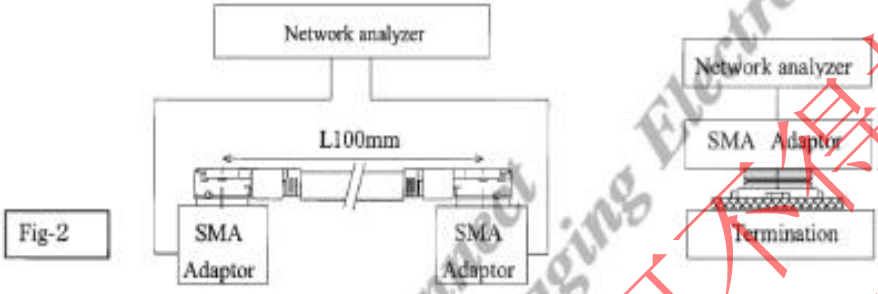
Unless otherwise specified, all tests and measurements shall be performed under the following condition in accordance with MIL-STD-202G

Temperature/温度-----288k~308k (15℃~35℃)

Relative Humidity/相对湿度-----45~75%R. H.

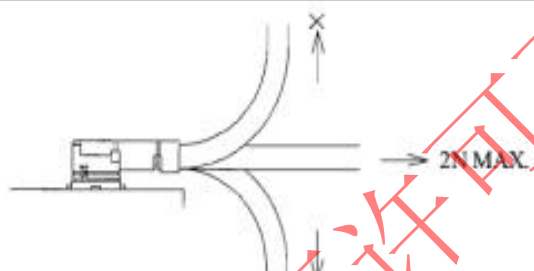
6.1 Electrical Performance/电气特性

Items 项目	Test conditions 测试条件	Specification (规格)
1. Contact resistance 接触阻抗	Solder the receptacle connector to the test board and mate the plug connector together, then measure the contact resistance as shown in Fig. 1 by the four terminal method. Apply the low level condition in accordance with MIL-STD-202G, Method 307. Open circuit voltage/开放电压: 20mV MAX. Circuit current/试验电流: 10mA MAX. 将母端焊接到测试板, 将公端装到母端上, 然后根据 Fig. 2 的四端测试方法, 根据标准 MIL-STD-202G, 方法 307, 加载低功率测试条件:	[Inner Contact] Initial : 20mΩ Max. After testing: ΔR20mΩ Max. [Ground contact] Initial : 20mΩ Max. After testing: ΔR20mΩ [中心端子]: 初态 25mΩ Max. 测试后: ΔR25mΩ Max. [接地端子] 初态 : 25mΩ Max. 测试后: ΔR25mΩ Max.
		
2. Insulation Resistance 绝缘阻抗	Mate the plug and receptacle connector together, and then apply DC 100V between the inner contact and the ground contact in accordance with MIL-STD-202G, Method 302. 将公端和母端配在一起, 在中心端子和接地端子之间, 加上 DC 100V 电压, 根据 MIL-STD-202G, 方法 302.	Initial : 500mΩ Min. After testing: 100MΩ Min. 初态: 500MΩ Min. 末态: 100MΩ Min.
3. Dielectric Withstanding Voltage /耐电压	Mate the receptacle and plug connector together, then apply AC 200V <u>rms</u> between the inner contact and the ground contact for a minute in accordance with MIL-STD-202G, Method 301. 将公端和母端配在一起, 在中心端子和接地端子之间, 加上 AC 200V <u>rms</u> 电压, 根据 MIL-STD-202G, 方法 301.	No creeping 的 discharge, flashover, no insulator breakdown shall occur; 没有沿面放电, 空中放电, 绝缘击穿发生;

4. VSWR/驻波比	Measure the VSWR as shown in Fig.-2 by the network analyzer. Frequency: 100M~6GHz 用网络分析仪, 如图 Fig.-2, 在频段 100M~6GHz, 测驻波比	Plug connector 1.3Max. at 0.1~3GHz 1.5Max. at 3~6GHz Receptacle connector 1.3Max. at 0.1~3GHz 1.4Max. at 3~6GHz
		

6.2 Mechanical Performance/机械特性

Items 项目	Test conditions 测试条件	Specification (规格)
1. Unmating Force 拔出力	Solder the receptacle connector to the test board and mate the plug connector, then measure the un-mating force at speed 25 ± 3 mm/minutes in parallel with the mating axis by the push-pull machine. 将母端连接器焊到测试板上, 然后将线端连接器装上, 用拉力机沿着配合中心测试拔出力, 拔出速度 25 ± 3 mm/分钟	[Total unmating force:] Initial : 4N MIN. After 30: 2N MIN. [综合拔出力] 初态: 4N MIN. 30次插拔后: 2N MIN.
2. Crimp strength 引张强度	Pull the cable as shown in Fig.-3 at speed 25 ± 3 mm/minutes by tensile strength machine. and measure the Retention force. 如图 Fig.-3 所示, 用推拉力机, 以速度 25 ± 3 mm/分钟来拉;	8N MIN. 8N 最小.
3. Durability 耐久性	Mate and un-mate the receptacle connector (soldered to the test board) and plug connector 30 cycles at speed 25 ± 3 mm/minutes along the mating by the push-pull machine. 将母端连接器焊到板子上, 用公端连接器, 用推拉力机, 以速度 25 ± 3 mm/分钟速度, 插拔 30 次;	[Appearance] No bnormality [Contact Resistance] Shall meet 6.1.1 [外观]: 无异常现象; [接触阻抗]: 符合 6.1.1;

Items 项目	Test conditions 测试条件	Specification (规格)
4. Contact resistance with force on the cable 负重下接触阻抗	Apply force on the cable as shown in Fig. -4. During the testing, run 100mA DC to check electrical discontinuity. 如图 Fig. -4 所示, 在线上施加一定的力, 测试中, 用 100mA DC 电流, 确认通电连续性;	[Appearance] No abnormality [Electrical discontinuity] No electrical discontinuity grater than 1us shall occur/ [Contact Resistance] Shall meet 6.1.1 [外观]: 无异常现象; [通电连续性]: 瞬断现象不超过 1u 秒 [接触阻抗]: 符合 6.1.1;
	 Fig. -4	
5. Vibration / 耐振动 性	Apply the following vibration to the mating connector. During the testing, run 100Ma DC to check electrical discontinuity. Frequency: 10HZ->100Hz->10Hz/ approx 20munites. Half amplitude, Peak value of acceleration: 1.5mm or 59m/s2(6G) Direction, cycle: 3 mutually perpendicular direction, 3 cycles about each direction. 将下面的振动加载到配合好的连接器上; 测试过程中, 用 100Ma DC 电流测试通电连续性; 频率变化: 10HZ->100Hz->10Hz/ 20 分钟左右; 半振幅, 峰值加速度: 1.5mm or 59m/s2(6G)	[Appearance] No abnormality [Contact Resistance] Shall meet 6.1.1 [Electrical discontinuity] No electrical discontinuity grater than 1us shall occur. [外观]: 无异常现象; [接触阻抗]: 符合 6.1.1 [通电连续性]: 瞬断现象不超过 1u 秒
6. Shock / 耐冲击	Apply the following vibration to the mating connector. During the testing, run 100Ma DC to check electrical discontinuity. Peak value of acceleration : 735m/s2(75G) Duration : 11msec Wave Form : half sinusoidal Directions, cycle: 6mutually perpendicular direction, 3 cycles about each direction. 将下面的振动加载到配合好的连接器上. 测试过程中, 用 100Ma DC 来测试通电 连续性; 峰值加速度: 735m/s2(75G) 周期: 11msec 波形: 半正弦波 方向, 循环: 6 相互垂直方向, 每个方向往复 3 次;	[Appearance] No abnormality [Contact Resistance] Shall meet 6.1.1 [Electrical discontinuity] No electrical discontinuity grater than 1us shall occur. [外观]: 无异常现象; [接触阻抗]: 符合 6.1.1 通电连续性: 瞬断<=1us

6.3 Environmental Performance/耐环境性能

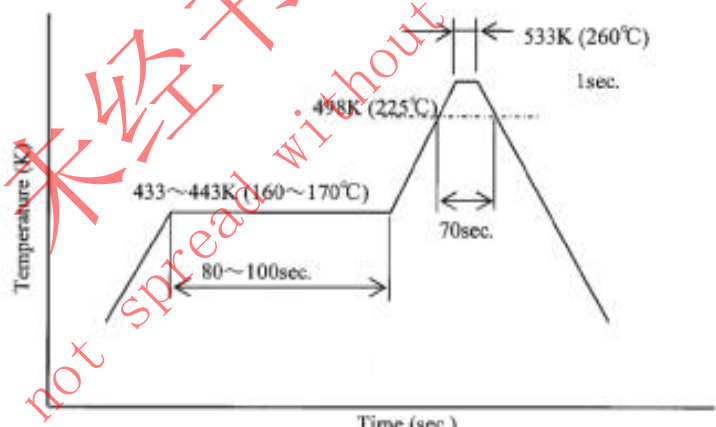
Items 项目	Test conditions 测试条件	Specification (规格)
1. Humidity (Steady State) 温度 (恒温恒湿)	Apply the following environment to the mating connector in accordance with MIL-STD-202G, Method 103, Condition B. Temperature : $313 \pm 2K (40 \pm 2^{\circ}C)$ Humidity : 90~95%RH 持续时间 : 96 hours 将下面的环境条件加到配合好的连接器上, 根据标准 MIL-STD-202G, 方法 103, 条件 B. 温度 : $313 \pm 2K (40 \pm 2^{\circ}C)$ 湿度 : 90~95%RH 方向 : 96 hours	[Appearance] No abnormality [Contact Resistance] Shall meet 6.1.1. [Insulation Resistance] Shall meet 6.1.2 [Dielectric Withstanding Voltage] Shall meet 6.1.3. [外观]: 无异常现象; [接触阻抗]: 符合 6.1.1 [绝缘阻抗]: 符合 6.1.2 [耐电压]: 符合 6.1.3
2. Thermal Shock 热冲击	Apply the following environment to the mating connector in accordance with MIL-STD-202G, Method 107G, Condition A Temperature: $218K (-55^{\circ}C)$: 30min. $\rightarrow$ $358K (85^{\circ}C)$: 30min. Transition time: 5min, MAX. No. of cycles: 5 cycles 将下面的环境条件加到配合好的连接器上, 根据标准 MIL-STD-202G, 方法 107G, 条件 A. 温度: $218K (-55^{\circ}C)$: 30 分钟, $358K (85^{\circ}C)$: 30 分钟; 转换时间: 至少 5 分钟; 循环次数: 5 次	[Contact resistance] Shall meet 6.1.1. [Insulation Resistance] Shall meet 6.1.2. [Dielectric Withstanding Voltage] Shall meet 6.1.3. [接触阻抗]: 符合 6.1.1 [绝缘阻抗]: 符合 6.1.2 [耐电压]: 符合 6.1.3
3. High Temperature Life 高温寿命	Apply the following environment to the mating connector. Temperature : $363 \pm 2K (90 \pm 2^{\circ}C)$ Duration : 96 hours 将下面的环境条件加到配合好的连接器上. 温度: $363 \pm 2K (90 \pm 2^{\circ}C)$ 持续时间: 96 小时	[Appearance] No abnormality [Contact Resistance] Shall meet 6.1.1 [Insulation Resistance] Shall meet 6.1.2. [外观]: 无异常现象; [接触阻抗]: 符合 6.1.1 [绝缘阻抗]: 符合 6.1.2

Items 项目	Test conditions 测试条件	Specification (规格)
4. H2S Gas	Apply the following environment to the mating connector. Temperature : $313 \pm 2K (40 \pm 2^{\circ}C)$ Relative Humidity: $80 \pm 5\%RH$ Gas : $H_2S \ 3 \pm 1 \text{ ppm}$ Duration : 96 hours 将下面的环境条件加到配合好的连接器上。 温度: $313 \pm 2K (40 \pm 2^{\circ}C)$ 相对湿度: $80 \pm 5\%RH$ 气体浓度: $H_2S \ 3 \pm 1 \text{ ppm}$ 持续时间: 96 小时	[Appearance] No abnormality [Contact Resistance] Shall meet 6.1.1 [外观]: 无异常现象; [接触阻抗]: 符合 6.1.1
5 Salt Water Spray 盐雾测试	Apply the following environment to the mating connector. MIL-STD-202G, Method 101E, Contition B. Temperature : $308 \pm 2K (35 \pm 2^{\circ}C)$ Relative Humidity: $95 \pm 98\%RH$ Salt water density: 5 ± 1 (by weight) Duration : 48 hours 将下面的环境条件加到配合好的连接器上, 根据标准 MIL-STD-202G, 方法 101E, Method 101E, 条件 B. 温度: $308 \pm 2K (35 \pm 2^{\circ}C)$ 相对湿度: $95 \pm 98\%RH$ 盐水浓度: 5 ± 1 重量比 持续时间: 48 小时	[Appearance] No abnormality [Contact Resistance] Shall meet 6.1.1 [外观]: 无异常现象; [接触阻抗]: 符合 6.1.1

6.4 Others/其他

Items 项目	Test conditions 测试条件	Specification (规格)
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1. Solder ability 焊接性	Dip the solder tine of the contacts in the solder bath at $518 \pm 5K (245 \pm 5^{\circ}C)$ for 5 ± 0.5 seconds after immersing the tine in the flux of RMA type for 5 to 10 seconds 将焊接脚沾上助焊剂 5-10 秒后, 浸入温度 $518 \pm 5K (245 \pm 5^{\circ}C)$ 的锡槽中, 时间 5 ± 0.5 秒,	More than 95% of the dipped surface shall be wet and less than 5% of the pinhole that shall not gather at a point. 95%以上表面焊接上, 小于 5% 的针孔聚锡;
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Items项目	Test conditions测试条件	Specification(规格)
2. Soldering Heesistance 耐焊接热	Reflow temperature profile. Fig-5 The number of reflow is within 2 times. Metal mask size. Fig-6 回流焊温度曲线. Fig-5 循环次数为 2 次 金属掩膜尺寸	Abnormality adversely affecting the performance shall not occur. 影响功能的不正常现象发生不可以发生;
 Fig-5		

7: Test sequence and sample quantity/试验顺序及验证数量

[illegible]

+

样品出货检验报告Sample inspection report

要求Requires:

1. 供应商名称 Supplier nam 深圳健海通天线技术有限公司
2. 天线的物料编码、型号、检测数量、检测日期 Antenna material code, model, testing quantity, testing date
3. 外观检测: 金手指是否脏污、破损, 端子是否有变形、标签是否相符、辅材是否漏贴、颜色是否相符
Appearance inspection: whether the connecting finger is dirty or damaged, whether the label is consistent, whether the RF plug is deformed, whether the auxiliary materials are missing, and whether the color is consistent
4. 尺寸检测: 线材长度、线体规格、天线尺寸等 Size detection: wire length, wire size, antenna size etc
5. 电气测试: 短路、开路、天线拉拔力、电压驻波比或回损 等Electrical test: short circuit, open circuit, antenna pull test ,VSWR or RL , etc

深圳健海通天线技术有限公司

出货检验记录

客户	康冠	项目名称	32A21UDT		客户料号	6150-040011-2T000001		颜色
订单号	/							黑
出货数量	5	抽样计划	AQL	AC	RE	不良率	判定	
抽样数	5	检查抽样标准	0.4	1	2	0	OK	
			1.0	2	3	0	OK	
检验项目:								
尺寸 (单位: MM)								
项目	标准	样本1	样本2	样本3	样本4	样本5	判定	
1	49.88±1mm	49.7	49.9	49.80	49.8	49.8	OK	
2	19.25±1mm	19.2	19.1	19.2	19.1	19.2	OK	
3	400±4mm	400	400	401	400	401	OK	
4	13±0.5mm	13.2	13.1	13.1	13	13.1	OK	
5								
6								
7								
8								
外观:								判定
塑胶件	表面平整清洁, 无缺料、无披锋、划痕、变形、缩水等现象							/
金属片	表面平整清洁, 无划痕、压伤、变形、缺料、少孔、偏位等现象							/
PCB	表面平整清洁, 无划痕、压伤、露铜、破损、外形不良等现象							OK
组装件	弹片与壳料不可有间隙 (0.30MM以内)、变形、缺料等现象							/
可靠性:								判定
性能检测	检测性能无断线, 性能无偏差等							OK
盐雾测试	测试后表面无色差, 油墨无脱落, 无变形、氧化等							OK
附着力测试	测试面积油墨脱落小于等于5%							OK
良品数: 5	不良描述: /							
不良数: 0								
包装检验	/							
其它	/							
说明: 对需检测的产品如在此中有不需要的检测项目用 "/" 表示								

检验员:

日期:

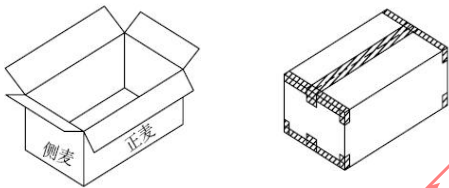
审核:

包装说明 PACKING SPECIFICATION

包装要求说明 Description of packaging requirements:

- 1.最小包装袋上面需贴物料卡 /环保标签
The material card/environmental label should be affixed on the smallest packaging bag
- 2.装箱前需在纸箱底部放置一块纸隔板， 封箱前需放置一块纸隔板
A paper partition should be placed at the bottom of the carton before packing, and a paper partition should be placed before sealing
- 3.纸箱封箱方式采用“工”字型， 上下相同
The carton sealing method adopts the "I" font, the top and bottom are the same
- 4.一个纸箱内容不能混装两种及两种以上物料 （如物料不足装满纸箱， 需用填充物料填充）
The contents of a carton cannot be mixed with two or more materials (if the material is not enough to fill the carton, it needs to be filled with filling materials)
- 5.除LVDS屏线两端插头需用珍珠棉包扎再真空包装外其他普通机内线材小包装使用封口热压处理保证密封效果。（注意：包装袋需包装良好的密封性， 我司IQC将装袋的密封效果作为来料检验项目， 发现有破损漏气的， 一律拒收处理！）
Except for the plugs at both ends of the LVDS screen cable, which need to be wrapped with pearl cotton and then vacuum-packed, other small packages of ordinary wires in the machine are sealed and heat-pressed to ensure the sealing effect. (Note: The packaging bag needs to be well sealed. Our IQC takes the sealing effect of the bag as an incoming inspection item. If it is found to be damaged and leaking, it will be rejected!)
- 6.装箱前在包装箱内放置大防水袋（防水袋厚度要适中， 避免在使用过程中有破损不良）， 放置适量干燥剂， 物料装入防水袋后， 防水袋封口需用橡皮筋等扎紧
Before packing, place a large waterproof bag in the packing box (the thickness of the waterproof bag should be moderate to avoid damage during use), and place an appropriate amount of desiccant. After the material is put into the waterproof bag, the waterproof bag should be sealed with a rubber band. Waterproof bag for sealing

装箱数量Qty（装箱适量根据物料实际长度大小填写实装数量）：



10.包装箱尺寸/材质要求 Packing box size/material requirements

项目 ITEM	单位 (Unit)	规格说明 pefications
尺寸Size	mm	480×280×300mm
材质说明Material Description		K=K BC 坑≥6mm
特性要求 Feature requirements	定量 (g/m ²)	K=K: 200/120/100/120/160
	耐破强度 (kgf/cm ²)	K=K>13.5 (1323kPa)
	边压强度	K=K>5500
	交货水分	≤14% (GB/T 6544-2008) 快速水分测定仪

- a.单箱重量不超过 20KG The weight of each container does not exceed 20KG
- b.所有线材（不分SKD、整机用料）纸箱内空不得超过10mm，如超过需要放置填充物（如EPS、珍珠棉片等） For all wires (regardless of SKD and materials used for the whole machine), the empty space in the carton shall not exceed 10mm. If the empty space exceeds 10mm, fillers (such as EPS and pearl cotton sheets) shall be placed.
- c.CKD/SKD纸箱堆码统一要求为5，包装要求详见附件《KTC 线材包装管理通知》 The unified stacking requirement for CKD/SKD cartons is 5. Please refer to the attached Notice on KTC Wire Packaging Management for packing requirements.

11.纸箱正唛\侧唛 标识卡 Carton front label\side label\identification card

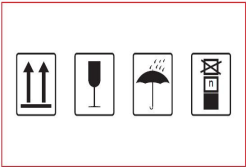
- a.正唛内容Positive mark content:
- b.侧唛内容Side Mark Content:
- 标签部分：①物料标识卡（按采购协议说明内容格式）②环保标签（可以采用直接印刷方式）③月份标签④合格物料标签⑤其他特殊要求标签
- Label part: ①Material identification card (in accordance with the content format of the purchase agreement) ②Environmental protection label (direct printing method can be used) ③Month label ④Qualified material label ⑤Other special requirement labels

12.部分标签内容格式Partial label content format

1.物料标识卡 Material identification card:

***（公司名称）物料标识卡	
订单号 (P/O)	
客户名称 (Customer)	
客户料号 (Customer P/N)	
品名规格 (Description)	
供应商料号: (Supplier P/N)	
箱号 (Carton Number)	
数量 (Quantity)	
检验员 (Inspector)	
装箱日期 (Packed Date)	

2.储存运输标识（统一印刷在纸箱两侧面左上角位置） Storage and transportation signs (printed uniformly on the upper left corner of both sides of the carton)



3.月份标签Month label

List of hazardous substances test reports

[illegible]

注：

- 1、材料清单：填写组成物料的所有“均质材料的名称+型号”。
- 2、SRM系统报告编号：填写深圳康冠科技集团供应链管理系统（网址：<https://scm.ktc.cn>）-供应商管理-有害物质检测报告模块下对应合格的报告编号。（该报告编号是贵司上传环保报告后系统自动生成的：供应商代码+流水号，如果系统无对应的报告，则需新增上传相应的报告）
- 3、报告类型：需根据SRM系统报告编号对应的报告类型进行填写。
- 4、表格行数可根据实际需求自行增减。