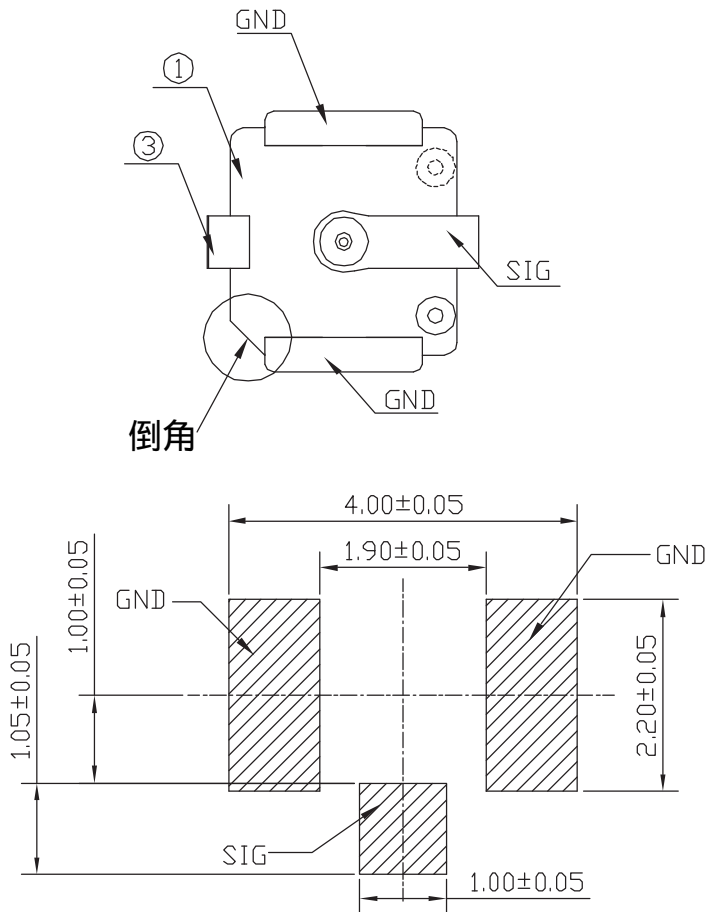
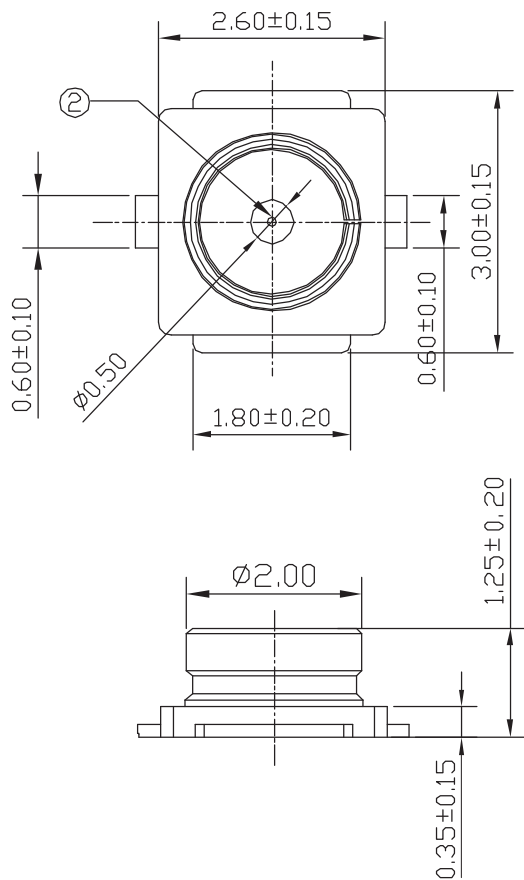


RoHS



RECOMMENDED PC BOARD PATTERN DRAWING

NOTES:

1.ELECTRICAL CHARACTERISTICS:

1.1 CURRENT RATING: 0.5A Max;

1.2 IMPEDANCE: 50OHM NOMINAL.

2.MECHANICAL CHARACTERISTICS:

2.1 OPERATING TEMP. -40° TO 90°;

2.2 VSWR UP TO 3 GHz: 1.3MAX;

3GHz TO 6GHz: 1.3MAX;

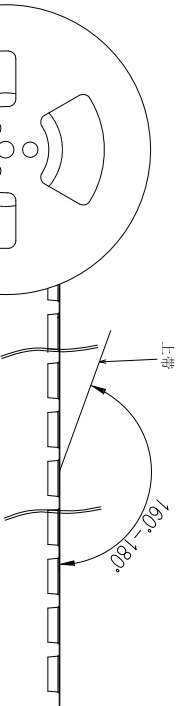
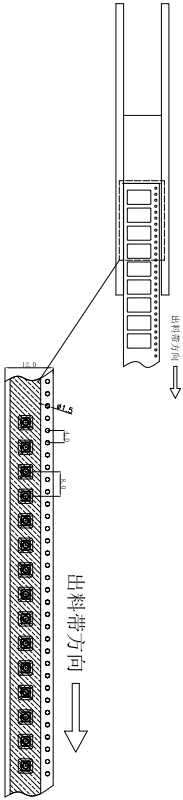
2.3 DURABILITY: 30CYCLES.

3	CONTACT	磷青铜	Ni UNDER PLATE, Au PLATED AT CONTACT AREA	1	包圆端子镀金 不加倒角 FOR RF1N0016-C05-RF 加倒角 FOR RF1N0016-C06-RF
			Ni UNDER PLATE, Ag PLATED AT CONTACT AREA	1	包圆端子镀银 不加倒角 FOR RF1N0016-C04-RF
2	CONTACT	黄铜	Ni UNDER PLATE, Au PLATED AT CONTACT AREA	1	抽引端子 FOR RF1N0016-C04/C05/C06-RF
1	HOUSING	LCP UL94V-0	N/A	1	包圆端子镀金、包圆端子镀银 不加倒角 FOR RF1N0016-C04/C05-RF
				1	包圆端子镀金 加倒角 FOR RF1N0016-C06-RF
项次	名称	说明	电镀规格	数量	备注

发放部门	
行政部	
业务部	
采购部	
工程部	
品保部	
生产部	

深圳市富港科技有限公司									
视图							MINI天线头座		
标 记	处 数	更改文件号		签 字	日 期	图样标记	重量	比例	IF-0203
设 计	王振钊	日 期	18.06.07	标准化	日 期				
校 对	李攀进	日 期	18.06.07	审 定	日 期				
工 艺		日 期							
审 核	罗观彬	日 期	18.06.07			共 页	第 页		

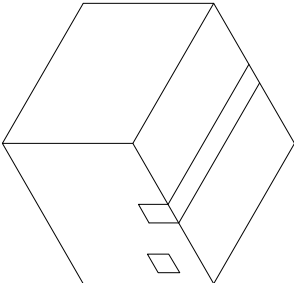
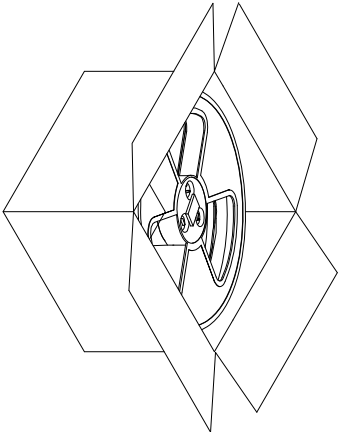
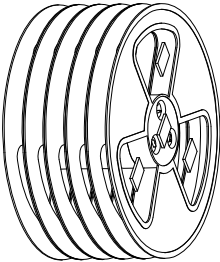
产品装箱示意图



物料标签

供应商		客户订单	
规格型号			
物料编码			
装卸数量			
生产日期			

- 注：
1. 纸箱为K=K材质
 2. 外箱表面清洁.
 3. 此箱需通过我司IQC相关测试标准。
 4. 每盘装5000PCS,
 5. 每箱装10盘 ，5000*10=50000PCS
 6. 未注明公差±0.2mm



深圳市富港科技有限公司			
视图		包装图	
设计	李攀进	日期	19.09.04
校对		日期	
工艺		日期	
审核	罗观彬	日期	19.09.04
IF-0203			

发放部门	
行政部	
业务部	
采购部	
工程部	
品保部	
生产部	

DOCUMENT NAME: PRODUCT SPECIFICATION	SUBJECT: RF I BOARD END CONNECTOR	DOCUMENT NO: SPEC-1001			
		PAGE	3 OF 8	REV	A

1. SCOPE

This product described in this paper is a SMT Type Micro Coaxial RF Receptacle, whose part name in our comply is USS RF REC. It is special for micro strip-to -Coaxial adapter in RF circuit, such as Mobile Phone, Wireless Net, Mini PCI, Bluetooth, PDA, GPS, Electric Measurement Instruments and so on.

2. REQUIREMENT

2.1. PRODUCT DIMENSION

Product shall be intermateable with industry standard product of opposite gender. This connector shall have the dimensions as shown in Drawing .

2.2. PCB/PANEL LAYOUT

The recommended PCB layout are shown in Drawing .

2.3. BILL OF MATERIAL

The bill of material and product number of Connectors are described in Drawing .

2.4. MECHANICAL & ELECTRICAL CHARACTERISTIC

The connector shall have the mechanical and electrical performance as described in **Table I**.

2.5. PACKAGING

Parts shall be packaged according to requirements specified in purchase order for safe delivery. Connector container and the packing specification are shown in Drawing .

2.6. HARMFUL MATERIAL CONTROL

Harmful material controls please follow the **Doc. No. QW-QA-10**.

3. PERFORMANCE AND TEST DESCRIPTION

3.1. REQUIREMENT

Product is designed to meet electrical, mechanical, and environmental performance requirements specified in **Table I**.

3.2. TEST CONDITION

Unless otherwise specified, all tests shall be performed at ambient environmental conditions:

3.2.1 Temperature: **15°C~35°C**

3.2.2 Humidity: **50±2% R**.

3.2.3 Atmospheric Pressure: **650 mmHg to 800 mmHg**.

3.3. SAMPLE SELECTION

Test samples shall be selected at random from current production. No test samples shall be reused. Each group shall be containing **10** test samples.

DOCUMENT NAME: PRODUCT SPECIFICATION	SUBJECT: RF I BOARD END CONNECTOR	DOCUMENT NO: SPEC-1001			
		PAGE	4 OF 8	REV	A

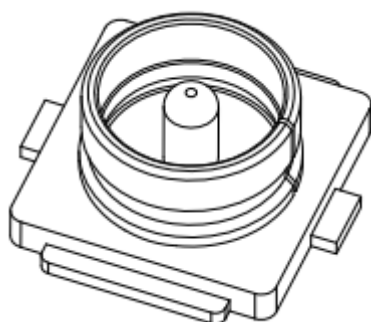
3.4 TEST SEQUENCE

Products qualification test sequence as shown in **Table II**.

4. QUALITY ASSURANCE PROVISIONS

CCT is responsible for the quality of the part as it is delivered to customer. The failing lots will be return or other supplier action.

5. PRODUCT PICTURE



6. Technical Parameters

6.1	Rated Voltage	60VAC (R.M.S)
6.2	Frequency Range	0~6GHz
6.3	Character Impedance	50Ω
6.4	Operate Temperature	-40℃~90℃
6.5	Operate Humidity	90% MAX

7. Electric Performance

7.1	Dielectric Resistance	500MΩ
7.2	Dielectric Withstand Voltage	200VAC 1Min
7.3	Contact Resistance	
7.3.1	Signal Contact	Initial: 20mΩ max
7.3.2	Ground Contact	Initial: 20mΩ max

7.4 VSWR

≦ 3GHz	3~6GHz
1.3max	1.4max

7.4.1 Test Method(Refer to the FIG2):

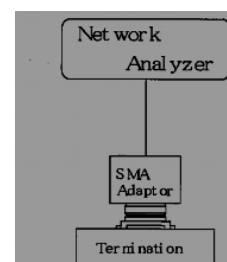
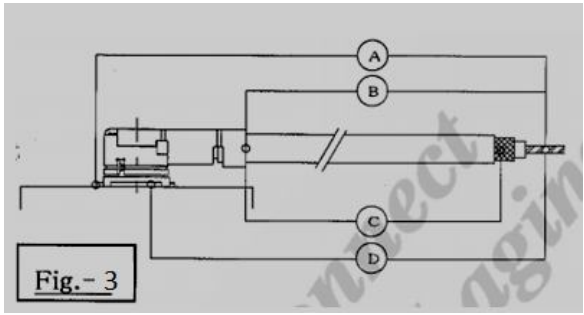
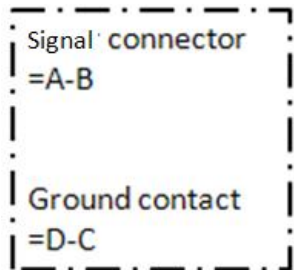
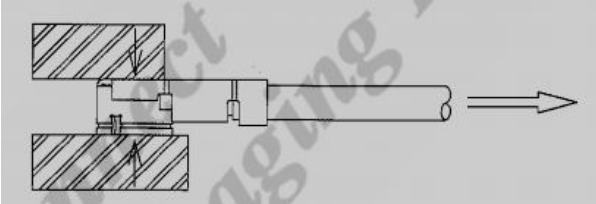


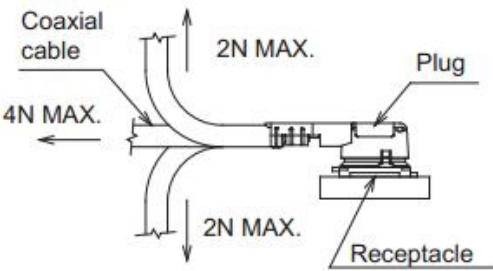
FIG2

DOCUMENT NAME: PRODUCT SPECIFICATION	SUBJECT: RF I BOARD END CONNECTOR	DOCUMENT NO: SPEC-1001			
		PAGE	5 OF 8	REV	A

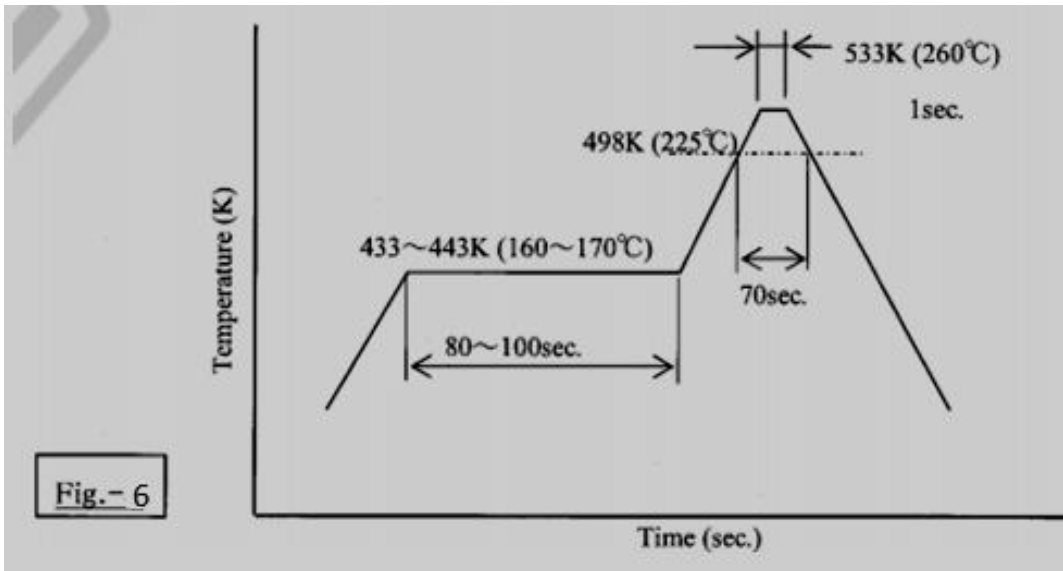
Table I: Performance Requirements

Items	Test Conditions	Specifications
1. Contact Resistance	<p>Solder the receptacle connector to the test board and mate the plug connector together, then measure the contact resistance as shown in Fig3 by the four terminal methods. Apply the low level conditions in accordance with MIL-STD-202G, Method 307.</p> <p>Open circuit voltage : 20 mV MAX Circuit current : 10 mA MAX</p>  <p>Fig.- 3</p>	<p>[Signal contact] Initial : 20mΩ MAX After testing : ΔR20 mΩ max</p> <p>[Ground contact] Initial : 20mΩ MAX After testing : ΔR20 mΩ MAX</p> 
2. Insulation Resistance	Mate the receptacle and plug connector together, and then apply DC 100V between the signal contact and the ground contact in accordance with MIL-STD-202G, Method 302.	Initial :500MΩ MIN After testing :100 MΩ MIN
3. Dielectric Withstanding Voltage	Mate the receptacle and plug connector together, and then apply AC 200V rms between the signal contact and the ground contact for a minute in accordance with MIL-STD-202G, Method 301.	No creeping discharge, flashover, no insulator breakdown shall occur.
4. VSWR	Measure the VSWR as shown in FIG2 by the network analyzer. Frequency: 100M~6GHz	1.3MAX. at 0.1~3GHz 1.4MAX .at 3~6GHz
5. Un-mating force	Solder the receptacle connector to the test board and mate the plug connector, then measure the un-mating force at speed 25 ± 3mm/minutes along by the push-pull machine.	[Total un-mating force] Initial :4N MIN After 30 :2N MIN
6. Crimp strength	<p>Pull the cable as shown in Fig4 at speed 25 ± 3mm/minutes by tensile strength machine.</p>  <p>Fig 4</p>	8N MIN

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7. Durability	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.	[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1
8. Contact resistance with force on the cable	<p>Apply force on the cable as shown in Fig5 During the testing, run 100mA DC to check electrical discontinuity.</p>  <p style="text-align: center;">Fig5</p>	<p>[Appearance] No abnormality [Electrical discontinuity] No electrical discontinuity grater than $1 \mu s$ shall occur. [Contact Resistance] Shall meet Table I.1</p>
9. Vibration	<p>Apply the following vibration to the mating connector. During the testing, run 100mA DC to check electrical discontinuity. Frequency: 10Hz → 100 Hz → 10Hz/approx 20 minutes. Half amplitude, Peak value of acceleration : 1.5mm/s^2 (6G) Directions, cycle: 3 mutually perpendicular direction, 3 cycles about each direction.</p>	<p>[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1 [Electrical discontinuity] No electrical discontinuity grater than $1 \mu s$ shall occur.</p>
10. Shock	<p>Apply the following vibration to the mating connector. During the testing, run 100mA DC to check electrical discontinuity. Peak value of acceleration: 735 m/s^2 (75G) Duration : 11msec Wave Form : half sinusoidal Direction, cycle : 6 mutually perpendicular direction, 3cycle about each direction.</p>	<p>[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1 [Electrical discontinuity] No electrical discontinuity grater than $1 \mu s$ shall occur.</p>
11. Humidity (Steady State)	<p>Apply the following environment to the mating connector in accordance with MIL-STD-202G, Method 103, Condition B. Temperature : $313 \pm 2\text{K}$ ($40 \pm 2^\circ\text{C}$) Humidity : 90~95%RH Duration : 96 hours</p>	<p>[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1 [Insulation Resistance] Shall meet Table I.2 [Dielectric Withstanding Voltage] Shall meet Table I.3.</p>
12. Thermal Shock	<p>Apply the following environment to the mating connector in accordance with MIL-STD-202G, Method 107G, Condition A. Temperature : 218K (-55°C) → 358K (85°C): 30min Transition time : 5min. MAX No. of cycles : 5 cycles</p>	<p>[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1 [Insulation Resistance] Shall meet Table I.2 [Dielectric Withstanding Voltage] Shall meet Table I.3.</p>

DOCUMENT NAME: PRODUCT SPECIFICATION	SUBJECT: RF I BOARD END CONNECTOR	DOCUMENT NO: SPEC-1001			
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13. High Temperature Life	Apply the following environment to the mating connector Temperature : $363 \pm 2K$ ($90 \pm 2^{\circ}C$) Duration : 96 hours	[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1 [Insulation Resistance] Shall meet Table I.2 [Dielectric Withstanding Voltage]
14. H ₂ S Gas	Apply the following environment to the mating connector Temperature : $313 \pm 2K$ ($40 \pm 2^{\circ}C$) Relative Humidity : $80 \pm 5\%RH$ Duration : 96 hours	[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1 [Insulation Resistance] Shall meet Table I.2 [Dielectric Withstanding Voltage]
15. Salt Water Spray	Apply the following environment to the mating connector in accordance with MIL-STD-202G, Method 101E, Condition B. Temperature : $308 \pm 2K$ ($35 \pm 2^{\circ}C$) Relative Humidity : $95 \sim 98\%RH$ Salt water density : $5 \pm 1\%$ (by weight) Duration : 96 hours	[Appearance] No abnormality [Contact Resistance] Shall meet Table I.1
16. Solder ability	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.	More than 95% of the dipped surface shall be wet and less than 5% of the pinhole than shall not gather at a point.
17. Soldering Heat Resistance	(1) Reflow part : $533 \pm 0/-5K$ ($260 \pm 0/-5^{\circ}C$) Peak 498K MIN. ($225^{\circ}C$ MIN) 70sec. MIN (2) Pre-heat part: $433 \sim 443K$ ($160 \sim 170^{\circ}C$) 80~100sec * Refer to reflow temperature profile.(Fig6) * The number of reflow is within 2 times.	No abnormality adversely affecting the performance shall not occur.
	 <p>Fig. - 6</p>	