

**DRAGON CITY INDUSTRIES LTD.**

**技术特性规格书**  
**Specifications**

**RS 系列**

**RS-Series**

**Product Name: RCA JACK**

**Model No: RS-101,RS-101G, RS-103, RS-103G, RS-104, RS-105A,  
RS-115G, RS-181, RS-201, RS-204, RS-209, RS-211, RS-212,  
RS-213, RS-234, RS-262, RS-281, RS-311, RS-313, RS-314,  
RS-315A, RS-325, RS-334, RS-401, RS-402, RS-487A, RS-404,  
RS-409, RS-413, RS-414, RS-482, RS-484, RS-601, RS-604,  
RS-609, RS-813**

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1. Scope 适用范围

This specs is suitable for AV pin jack, which is suitable for input/output of audio/video signal, used as connection part.

本技术特性规格书，适用于 AV 型同芯插座。产品适用于音频、视频信号的输入输出，作接插使用。

2. Construction 外观尺寸

The external dimensions of this product and its internal tolerances are based on relevant drawings.

本产品外形及内部结构配合（公差）尺寸，均以图纸为准。

3. Material 材料

Refer to the material sheet showed in the drawing.

均以图纸所列材料为准。

4. Applied environment 使用环境

- (1) Temperature 温度: -40~70° C
- (2) Relative humidity 相对湿度: <90%(40° C)
- (3) PH value PH 值: PH6~8

5. Electrical properties 电气性能指标

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
5.1.	Rating load 额定负荷	DC 50V .	0.2A	
5.2	Dielectric strength 耐压（抗电强度）	AC 500V(50~60Hz) 1min 2mA	No abnormality, no breakdown, no over arc. 无异常、无击穿、飞弧	
5.3	Contact resistance 接触电阻	Frequency: 1000Hz; Current < 100mA; Voltage: 20mV 频率在 100Hz 情况下， 电流 < 100mA, 电压: 20mV	≤ 20m Ω	
5.4	Insulation resistance 绝缘电阻	DC 500V	≥ 100M Ω	

6. Mechanical properties 机械性能指标

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
6.1	Insertion force 插入力	Use standard plug. Measure it after 3 times of insertion. 使用标准插头，插入 3 次后测定。	3~25N	
	Extraction force 拔出力	Use standard plug. Measure it after 3 times of extraction. 使用标准插头，拔出 3 次后测定。	3~25N	

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
6.2	Terminal strength 端子强度	Apply 10N static load, 1min in any direction. 加入 10N 的静负荷, 1min, 任何方向。	Appearance: no deforming and loosing 外观: 无变形、松动	
			Contact resistance: $\leq 30\text{ m}\Omega$ 接触电阻: $\leq 30\text{ m}\Omega$	
			Insulation resistance: $\geq 100\text{ M}\Omega$ 绝缘电阻: $\geq 100\text{ M}\Omega$	
			Voltage withstanding: AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧	
6.3	Mechanical life 机械寿命	Inserting and extracting 1000 times without load at the speed of 10~20 cycles per minute. 在无负荷情况下插拔 1000 次, 插拔速度: 10~ 20 次/min	Appearance: no deforming and loosing 外观: 无变形、松动	
			Contact resistance: $\leq 30\text{ m}\Omega$ 接触电阻: $\leq 30\text{ m}\Omega$	
			Insulation resistance: $\geq 100\text{ M}\Omega$ 绝缘电阻: $\geq 100\text{ M}\Omega$	
			Voltage withstanding: AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧	
			Insertion force: $\leq 30\text{ N}$ 插入力: $\leq 30\text{ N}$	
			Extraction force: 3~25N 拔出力: 3~25N	

7. Soldering properties 焊接性能

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
7.1	Solder-ability 可焊性试验	Solder bath method ; Temperature: $235^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Flux dipping time 3 seconds Time: $3 \pm 0.5\text{ s}$ 使用焊槽法: 温度: $235 \pm$ $5^{\circ}\text{C}$ ; 时间: $3 \pm 0.5\text{ s}$	Dipping time $\leq 3\text{ s}$ 焊接润滑时间 $\leq 3\text{ s}$	
			Solder covered surface $\geq 95\%$ 接线端沾锡面积 $\geq 95\%$	

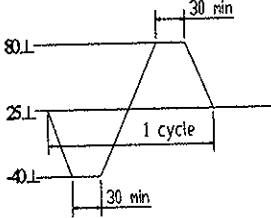
No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
7.2	Soldering withstanding 耐焊性试验	Solder bath method : Temperature: 260° C ± 5° C Flux dipping time 3 seconds Time: 10 ± 1s 使用焊槽法: 温度: 260 ± 5° C; 时间: 10 ± 1s	Appearance: no deforming and loosening 外观: 无变形、松动	
			Contact resistance: ≤ 30 m Ω 接触电阻: ≤ 30 m Ω	
			Insulation resistance: ≥ 100M Ω 绝缘电阻: ≥ 100M Ω	
			Voltage withstanding: AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧	
			Insertion force: ≤ 30N 插入力: ≤ 30N	
			Extraction force: 3 ~ 25N 拔出力: 3 ~ 25N	

8. Environment properties 环境性能

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
8.1	Heat withstanding 耐热性	Temperature: 80 ± 2° C, keep 120 hours and measure after one hour recovery in standard atmospheric conditions. 温度在 80 ± 2° C, 保持 120h 在标准大气条件下, 恢复 1h 测试。	Appearance: no deforming and loosening 外观: 无变形、松动	
			Contact resistance: ≤ 30 m Ω 接触电阻: ≤ 30 m Ω	
			Insulation resistance: ≥ 100M Ω 绝缘电阻: ≥ 100M Ω	
			Voltage withstanding: AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧	
			Insertion force: ≤ 30N 插入力: ≤ 30N	
			Extraction force: 3 ~ 25N 拔出力: 3 ~ 25N	
			Terminal robustness: 10N, 1min, Appearance: no deforming and damage. 端子强度: 10N, 1min 外观: 无变形、无损伤	

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
8.2	Humidity withstanding 耐湿性	Temperature: $55 \pm 2^{\circ} \text{C}$ , Relative humidity: 90~95% Time: 120 hours Measure after one hour recovery in standard atmospheric conditions. 温度: $55 \pm 2^{\circ} \text{C}$ , 相对湿度: 90~95% 时间: 120h 在标准大气条件下, 恢复 1h 测试。	Appearance: no deforming and loosing 外观: 无变形、松动 Contact resistance: $\leq 30 \text{ m}\Omega$ 接触电阻: $\leq 30 \text{ m}\Omega$ Insulation resistance: $\geq 100 \text{ M}\Omega$ 绝缘电阻: $\geq 100 \text{ M}\Omega$ Voltage withstanding: AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧 Insertion force: $\leq 30 \text{ N}$ 插入力: $\leq 30 \text{ N}$ Extraction force: 3~25N 拔出力: 3~25N Terminal robustness: 10N, 1min, Appearance: no deforming and damage. 端子强度: 10N, 1min 外观: 无变形、无损伤	
8.3	Vibration withstanding 耐振性	Frequency: 10~55Hz Double amplitude: 1.5mm In 3 intersectional axis, 2 hours each axis, total 6 hours. 频率: 10-55Hz 双振幅: 1.5mm 三个互相垂直的轴线上, 每个轴线 2h, 总共 6h 振动。	Appearance: no deforming and loosing 外观: 无变形、松动 Contact resistance: $\leq 30 \text{ m}\Omega$ 接触电阻: $\leq 30 \text{ m}\Omega$ Insulation resistance: $\geq 100 \text{ M}\Omega$ 绝缘电阻: $\geq 100 \text{ M}\Omega$ Voltage withstanding: AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧 Insertion force: $\leq 30 \text{ N}$ 插入力: $\leq 30 \text{ N}$ Extraction force: 3~25N 拔出力: 3~25N	

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
8.4	Shock withstanding 耐冲击	Acceleration: $9.81\text{m/s}^2$ (100G) Sustaining repulse: 6ms In 3 intersection axis, 6 surfaces, 3 shocks each surface, total 18 times of shock. 加速度 $9.81\text{m/s}^2$ (100G) 持续脉冲: 6ms 三个互相垂直的轴线上, 六个面, 每个面冲击 3 次, 总共 18 次冲击。	Appearance: no deforming and loosing 外观: 无变形、松动	
			Contact resistance: $\leq 30\text{m}\Omega$ 接触电阻: $\leq 30\text{m}\Omega$	
			Insulation resistance: $\geq 100\text{M}\Omega$ 绝缘电阻: $\geq 100\text{M}\Omega$	
			Voltage withstanding : AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧	
			Insertion force: $\leq 30\text{N}$ 插入力: $\leq 30\text{N}$	
			Extraction force: 3~25N 拔出力: 3~25N	
			Terminal robustness: 10N, 1min, Appearance: no deforming and damage. 端子强度: 10N, 1min 外观: 无变形、无损伤	
8.5	Cold withstanding 耐寒性	Temperature: $-40\pm 3^\circ\text{C}$ , Time: 120hours Measure after one hour recovery in standard atmospheric conditions. 温度: $-40\pm 3^\circ\text{C}$ , 时间: 120h 在标准大气条件下, 恢复 1h 测试。	Appearance: no deforming and loosing 外观: 无变形、松动	
			Contact resistance: $\leq 30\text{m}\Omega$ 接触电阻: $\leq 30\text{m}\Omega$	
			Insulation resistance: $\geq 100\text{M}\Omega$ 绝缘电阻: $\geq 100\text{M}\Omega$	
			Voltage withstanding : AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧	
			Insertion force: $\leq 30\text{N}$ 插入力: $\leq 30\text{N}$	
			Extraction force: 3~25N 拔出力: 3~25N	
			Terminal robustness: 10N, 1min, Appearance: no deforming and damage. 端子强度: 10N, 1min 外观: 无变形、无损伤	

No. 序号	Items 项目	Technical conditions 技术条件	Technical requirements 技术要求	Memo 备注
8.6	Temperature cycle 温度循环	<p>Decrease from 25°C to -40°C in 30 minutes; then increase from -40°C to 80°C to complete one cycle. Total 200 cycles. Measure after 24 hours of recovery in standard atmospheric conditions.</p> <p>在 30min 内温度从 25°C 减少到 -40°C; 在 30min 温度再从 -40°C 增加到 80°C 为一个循环, 共循环 200 次。在标准大气条件下, 恢复 24h 后测试。</p> 	<p>Appearance: no deforming and loosening 外观: 无变形、松动</p> <p>Contact resistance: <math>\leq 30\text{ m}\Omega</math> 接触电阻: <math>\leq 30\text{ m}\Omega</math></p> <p>Insulation resistance: <math>\geq 100\text{M}\Omega</math> 绝缘电阻: <math>\geq 100\text{M}\Omega</math></p> <p>Voltage withstanding : AC500V, 2 mA, 1min, no breakdown, no over arc. 耐压: AC500V, 2 mA, 1min 无击穿、无飞弧</p> <p>Insertion force: <math>\leq 30\text{N}</math> 插入力: <math>\leq 30\text{N}</math></p> <p>Extraction force: 3~25N 拔出力: 3~25N</p> <p>Terminal robustness: 10N, 1min, Appearance : no deforming and damage. 端子强度: 10N, 1min 外观: 无变形、无损伤</p>	