

**1. Scope**

This specification covers the pitch 2.54mm series Pin Header connectors.

**2. Applicable documents**

The following documents form a part of this specification to the extent specified herewith. In the event of conflict between the requirements of the specification and the product drawing, the product drawing shall take precedence.

In the event of conflict between the requirements of the specification and the referenced documents, this specification shall take precedence.

**3. Ordering information**

Refer to the drawing.

**4. Connector dimensions**

Refer to the drawing.

**5. Material**

Housing: Thermoplastic (UL 94V-0)

Color :Black

Contacts terminal: Copper alloy

Plating:Gold plated

**6. Accommodated P.C.B layout**

Refer to the drawing.

**7. Rating**

Operating voltage(Max.) 250V AC/DC

Current rating(Max.) 3.0A DC

Temperature range-operating -40°C -- +105°C(Including terminal temperature rise)

**8. Test condition**

The test and measurement, unless otherwise specified, shall be carryout at a temperature of 15 to 35 °C, Relative humidity of 30 to 60%, and atmospheric pressure of 86 to 106 kPa.

However, when any doubt arises on the judgment value it , the test and measurement shall be carry out at a temperature of 20 ± 2 °C, relative humidity of 30 to 60%, and atmospheric pressure of 86 to 106 kPa.

Appearance: By looking, there shall not be any abnormality such as deformity, exfoliation of plating, etc, which can reduce performance. No defect such as cracks scratches or blemishes.

**9. Performance**

Test item	Requirement		Test Condition
<b>Electrical Performance</b>			
Contact Resistance	20 mΩ (Max.)		Mate applicable connectors, measure by dry circuit, 20mV MAX., 10mA.
Insulation Resistance	1000 MΩ (Min.)		Mate applicable connectors, apply 500V DC between adjacent terminals or ground. (E1A - 364 - 21C)
Withstand voltage	No breakdown and flashover		Mate applicable connectors, apply 600V AC for 1 minute between adjacent terminal or ground. (EIA - 364 - 20B)
<b>Mechanical Performance</b>			
Pin Retention Force	0.8kgf (Min.) per contact		Apply axial push force at a speed of 25±3mm/minute on the contact pin assembled in the base housing
Durability	Contact Resistance	30 mΩ Max.	Mate connector up to 100 cycles repeatedly at a rate of 500 cycles/ hour. After which test the contact resistance
<b>Environmental Performance and others</b>			
Heat resistance	Appearance	No Damage	105 ± 2 °C in temperature 96hours. After testing connector shall be left alone for 1 to 2 hours in a room ambient.
	Contact Resistance	30 mΩ Max.	
Cold resistance	Appearance	No Damage	-40 ± 2 °C in temperature 96hours. After testing connector shall be left alone for 1 to 2 hours in a room ambient.
	Contact Resistance	30 mΩ Max.	
Humidity	Appearance	No Damage	Mated connector shall be placed in a humidity chamber on the following conditions. Temperature: 40±2°C Relative humidity: 90~95% Duration : 96 Hours (EIA - 364 - 31B)
	Contact Resistance	30 mΩ Max.	
	Withstand voltage	No Breakdown	
Temperature Cycling	Appearance	No Damage	Mated connector shall be set to temperature cycling for 5 cycles of which 1 cycle consists of: 1>. -40°C ± 3°C ~ 30 minutes 2>. +105°C ± 3°C ~ 30 minutes
	Contact Resistance	30 mΩ Max.	

Test item	Requirement		Test Condition
Salt Spray	Appearance	No Damage	Mated connector shall be placed in a salt spray chamber on the following conditions. Salt Solution Density : $5 \pm 1\%$ Temperature : $35 \pm 2 \text{ }^\circ\text{C}$ Duration : 0.025 $\mu\text{m}$ (1 $\mu\text{''}$ ): 8H; 0.038 $\mu\text{m}$ (1.5 $\mu\text{''}$ ): 12H; 0.075 $\mu\text{m}$ (3 $\mu\text{''}$ ): 24H; 0.150 $\mu\text{m}$ (6 $\mu\text{''}$ ): over 48H.
	Contact Resistance	30 m $\Omega$ Max.	
Solderability	95% of immersed area must show no voids nor pin holes		Immerse fluxed soldered section of contact pin into a solder bath for 4~5 sec, temperature: $245 \pm 5 \text{ }^\circ\text{C}$
Resistance to soldering heat (Wave soldering)	Appearance	No Damage	Sample mounted on PCB and subject to wave soldering, Wave Soldering Temperature: $260 \text{ }^\circ\text{C}$ for 10 Sec
Resistance to soldering heat (Reflow)	Appearance	No Damage	Pass Jack through IR machine for 3 cycles of the following reflow profile: Peak Temperature $260 \text{ }^\circ\text{C}$