

1. Scope

This specification covers the performance, tests and quality requirements for the RJ45 Connector

Applicable Product Models:FRJ45251 series.

2. Applicable documents

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this 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 (UL94V-0)

Terminal: Copper Alloy

Plating:Selective gold plated on contact area and matte tin plated on tails area

6. Accommodated P.C.B layout

Refer to the drawing.

7. Rating

Operating voltage(Max.):125V AC

Current rating(Max.) :1.5A allowable current to be applied

Temperature range-operating: -40°C -- +85°C

8. Performance

Serial Number	Test item	Procedure	Requirement
1	Examination Of Product	Visual inspection. (EIA-364-18)	Meets requirements of product Drawing. No physical damage.

ELECTRICAL REQUIREMENT

2	Contact Resistance	Subject mated contacts assembled housing to 20 mV maximum 100 mA .Measured from plug side to PCB side. (EIA-364-23)	30 mΩ MAX
3	Insulation Resistance	Mated connectors with 500±10% VDC between adjacent contacts or ground. (EIA-364-21)	Minimum initial resistance: 500 MΩ
4	Dielectric withstanding Voltage	Mated connectors with 1000±5% VAC for 6 seconds 1.0mA between adjacent contacts or ground. (EIA-364-20)	No Breakdown

MECHANICAL REQUIREMENT

5	Solder ability	Place the connector on the P.C.Board,then immerse the solder pin up to the surface of the borard in the solder bath at Solder Temp: (EIA-364-52)	Without deformation of case or excessive lossen.
6	Resistance to Soldering Heat	Will pin/shielding shell immersed in to the solder groove iron foot, 260±5°C temoeratur, time for 5±0.5s.	Pin/iron feet more than 95% tin, no bubble,virtual welding phenomenon, glossiness is good
7	Mating and Un-mating Force	Insert connector (male to female) at a rate of 12.5±3 mm per minute. (EIA -364-13)	2.2kgf Max

8	Durability	<p>Operation Speed: 10 to 20 cycle/min. Durability Cycles: 750 Cycles. (EIA-364-09)</p>	Appearance: Nodamage
			Contact Resistance: 30 mΩ MAX
9	Plug Retention Force	Put the connector and plug in a vertical position, hang a 3kgf object at the bottom of the plug for 60s±5s.	3kgf Min
10	Prompt break test	<p>1. Hang up a 8 poundspoise on the pothook 2. Swing angle: 360 degree 3. Speed : 3circles/minute 4. Time: 2 minutes clockwise 3circle and counter-clockwise 3circle) 5. Mate up the Plug and Jack for 750 times before test 6. Blade height : 5.89~5.92mm 7. Instrument: microsecond grade, 0.1microsecond</p>	Within 2 minutes all the contact point without open up

ENVIRONMENT PERFORMANCE AND OTHERS

11	Humidity	<p>At a temperature of 40±2°C and relative humidity of 90% - 95% for 96 hours. Then, be left alone for 1 to 2 hours in a room ambient and test in the time. (EIA-364-31)</p>	<p>Meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification Test Sequence</p>
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12	Heat Resistance	Mated connectors and expose to 85 °C for 96 hours, Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. (EIA-364-17)	Meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification Test Sequence
13	Cold repistance Test	Put it in an environment with a temperature of -40 ± 3 °C for 96 hours, then take it out and place it in normal humidity and room temperature for 1 to 2 hours and then test the contact impedance (excluding the resistance of the Crystal head and RJ45 jack).	Meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification Test Sequence
14	Salt Spray	The solution was $5\pm 1\%$ NaCl solution with a PH of 6.5-7.2 Liquid, continuous spray. The test temperature is 35 ± 2 °C,sprayThe fog lasts 24 hours. (EIA-364-26B)	Meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification Test Sequence