1. Scope

This specification outlines the performance, testing, and quality requirements for RJ45 Modular Plug connectors.

Applicable Product Models:FMP27 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

Shell： Copper Alloy/gold plating or nickel plating

6. Rating

Operating voltage(Max.):125V DC

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

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

7. 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	In an environment with an ambient temperature of 23 ±2°C and a relative humidity of 65±5%,contact resistance between the plug and socket. (IEC-60603-7)	Contact Resistance：20mΩ Max.
3	Insulation Resistance	Under an ambient temperature of 23±2°C and a relative humidity of 65±5%, apply 500V DC between adjacent pins for 1 minute. (IEC-60603-7)	500 MΩ min. Initial
4	Dielectric withstanding Voltage	Under an ambient temperature of 23±2°C, apply 1000V AC between adjacent pins for 1 minute. (IEC-60603-7)	No Breakdown
		Mechanical Requirement	
5	Mating and Unmating force	Pair the samples and press down the latching mechanism at a maximum speed of 10 mm/s. Each test cycle consists of one insertion and one removal action, with 50 total cycles required. (IEC60603-7)	Both insertion and removal forces must be within the 30N range.

6	Durability	Pair the samples and perform 750 insertion/removal cycles at an operating speed of 10 mm/s. (IEC60603-7)	Appearance: Nodamage
			Contact resistance range

Environment Performance AND Others

7	High/Low Temperature Cycling Test	Cool down to -40°C in 1.5 hours, hold for 2.5 hours; then heat up to 85°C in 1.5 hours, hold for 2.5 hours. Repeat this cycle for a total duration of 72 hours. (TIA 568-C.2)	No Breakdown
8	Salt Spray	Salt Mist Concentration: 5%; pH Value: 6.8 ±0.45; Spray Rate: 1.0~2.0 (ml/80 cm²/h); Relative Humidity (RH): ≥85%; Inclination Angle of Test Specimen: 15°~45°; Test Duration: 24 hours. (GB/T 2423.17)	Appearance: Nodamage