

1. Scope

This specification covers the USB series product.

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: Refer to the drawing.

Terminal: Copper alloy

Plating: Gold in contact area, tin on tail

Shell: Copper alloy

Plating: Nickel plated

6. Accommodated P.C.B layout

Refer to the drawing.

7. Rating

Operating voltage(Max.) 30V DC/AC

Current rating(Max.) 1.5A

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

8. Performance

Test item	Requirement	Procedure
Electrical Performance		
Contact Resistance	30 mΩ Max.	Mate connectors: apply a maximum voltage of 20 mV and a current of 100 mA. (EIA-364-23)
Insulation Resistance	1000 MΩ Min.	Un-mate & un-mount connectors: apply a voltage of 500 V DC between adjacent terminals and between terminals to ground. (EIA-364-21)
Dielectric Strength	No breakdown; Current leakage 0.5mA Max.	Un-mate connectors: apply a voltage of 500 V AC for 1 minute between adjacent terminals and between terminals to ground. (EIA 364-20)

Test item	Standards	Requirement
Mechanical Performance		
Insertion Force	35N Max.	Mate connector (male to female) at a rate of 12.5 mm (0.5 ± ¼ inch) per minute. (EIA-364-13)
Withdrawal Force	10N Min.	Un-mate connector (male to female) at a rate of 12.5 mm (0.5 ± ¼ inch) per minute. (EIA-364-13)
Durability	Shall meet visual requirement, show no physical damage.	Mate and Un-mate Connector assemblies for 1,500 cycles at maximum rated of 200 cycles per hour. (EIA-364-09)
Environmental Performance and others		
Temperature life	30℃ Max.	Subject mated connectors to temperature Life at 85 ℃ for 250 hours (EIA 364 – 17A-87, test condition 2 Method A.)
Humidity	168 Hours minimum (seven complete cycles).	Subject mated connectors to 60 cycles temperature between: -25℃ to +65℃ with 90 to 95% RH (EIA 364-31, test condition A. method III.)
Thermal Shock	The USB connectors under test must be mated.	Subject mated connectors to 10 cycles between -55℃ to +85℃ (EIA 364-32, test condition I.)
Salt Spray	After 8 hour salt-spray test, No rust and oxidation	5±1% salt solution duration 8 hours. Temperature:35±2 ℃ Connectors detached. (EIA- 364-26, test condition B.)
Solderability	The surface of the portion to be soldered shall at least 95% covered with new solder coating.	Connector terminal tails in solder: (held at 215±5℃) up to 0.5mm from the bottom of the housing for 5± 0.5 sec. (EIA 364-52)

Test item	Standards	Requirement
Resistance To Solder Heat	No mechanical defect on housing or other parts.	Dip connector terminal tain solder; Temperature: 230℃±5℃ Immersion duration: 5 ± 1 sec. (MIL-STD-202F, Method 210A, Test Condition B.)

9. Test sequences identification

Number of test samples	Group Amount	5	5	5	5	5	5
	Test Description	A	B	C	D	E	F
Test Item	Examination of Product	1,6	1,5	1,5	1,7	1,7	1
1	Low Level Contact Resistance	2,5	2,4	2,4			2
2	Insulation Resistance				2,5	2,5	
3	DWV				3,6	3,6	
4	Durability		3				
5	Insertion and Withdrawal Force	3,4					
6	Thermal Shock				4		
7	Humidity					4	
8	Temperature life			3			
9	Solderability						3