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 speci- fication shall take precedence.

3. **Ordering information**

Refer to the drawing.

4. **Connector dimensions**

Refer to the drawing.

5. **Material**

Housing: Themoplastic (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	Standards	Requirement
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 VDC 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 and Withdrawal Force	Insertion Force	3.57kgf Max.	Mate and Un-mate connector (male to female) at a rate of 20 mm (1 ± ¼ inch) per minute. (EIA-364-13)
	Withdrawal Force	1.02kgf Min.	
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)
Vibration (Random)	1). No discontinuities of 1 microsecond or longer duration 2). Shall meet visual requirement, show no physical damage.		Frequency : 10-55-10Hz Amplitude: 1.5mm (Max.) and 10G(Max.) Sweep time 1 minute Duration: 2 hrs in each X,Y,Z axes total 6 hrs (EIA 364-28, test condition VII.)
Environmental Performance and others			
Temperature Rise	30℃ Max.		Mate connectors : measure the temperature rise at the rated current (1.5A). (EIA 364-70 Method B)
Humidity	Dielectric strength	No Breakdown at 500V AC	Subject mated connectors to 60 cycles temperature between: –25℃ to +65℃ with 90 to 95% RH (EIA 364-31)
	Insulation Resistance	1000 MΩ	
	Visual	No Damage	
Thermal Shock	Dielectric strength	No Breakdown at 500V AC	Subject mated connectors to 10 cycles between –55℃ to +85 ℃ (EIA 364-32)
	Insulation Resistance	1000 MΩ	
	Visual	No Damage	
Salt Spray	100 mΩ (Max.) In final contact resistance.		5±1% salt solution duration 12 hours. Temperature:35±2 ℃ Connectors detached. (EIA 364-26A)
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 235±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 taisin 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	1,7	1,6	1,8	1,5	1,4	1,3
1	Low Level Contact Resistance	3,5	2,5		2,4		
2	Insulation Resistance			3,6			
3	Dielectric Strength			4,7			
4	Temperature Rise			2		2	
5	Insertion and Withdrawal Force	2,6					
6	Durability	4					
7	Vibration		3				
8	Humidity			5			
9	Thermal Shock		4				
10	Salt Spray				3		
11	Solderability					3	
12	Resistance To Solder Heat						2