Products pecification

1. Scope

A.This specification covers the performance, tests and quality requirements for the Type.C plug and Receptacle connector.

Applicable Product Models:FUS6228 series.

2. Applicable document

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. Materials and Plating

A. Housing： PA9T (UL 94V-0),Black;
B. Contacts : Copper Alloy/ Gold Plated on contact and Tin Plated on tai;
C. Shell : Stainless steel/ Nickel Plated.

4. Applicable P.C.B. Layout

Refer to the drawing

5. Rating

A.Voltage: 5V DC/AC (RMS. max)

B.Current: 5Amps for total Vbus/Gnd pins; 1.25Amps for CC Pin,0.25 Amps. for all other contact

C.Operating temperarure:-25°C ~ +85°C

6 Performance requirement and test description

The product shall be designed to meet the electrical, mechanical. All tests shall be performed at ambient environmental conditions.

7. Performance

Test Item	Requirement	Test Condition
Appearance of product	Meets requirements of Product drawing, NO Breakdown	Visual inspection. (EIA-364-18)
Electrical Performance		
Contact resistance	50mΩ max for shield (initial) 40mΩ max for other (initial) 10mΩ max change for post test	Subject mated contacts assembled in housing to 20mV max open circuit at 100mA max. (EIA-364-23B)
Dielectric withstanding voltage	No flashover& spark over & excess leakage & breakdown	Test voltage 100V AC between adjacent contacts of mated and unmated connector assemblies for one minute. Interval of shield case and contacts too, in the same way . (EIA-364-20B)
Insulation resistance	Initial:100 MΩ min. Final(post test) 100 MΩ min.	Test voltage 100±10V DC between adjacent contacts of mated and unmated connector assemblies interval of shield case and contacts too in the same way. (EIA-364-21C)

Mechanical Performance

Mating force	0.5~2Kgf .	Measure force necessary to mate connector assemblies at maximum rate of 30cycles/min. (EIA-364-13)
Unmating force	0.8~2Kgf .	Measure force necessary to mate connector assemblies at maximum rate of 30cycles/min. (EIA-364-13)
Durability	Mating force: 0.5~2Kgf Unmating force: 0.8~2Kgf Contact resistance:10mΩ max change for post test appearance :no breakdown	Mate and unmated connector assemblies for 10,000 cycles at. Cycle rate of 500 cycles per hour if done (EIA-364-09)
Solder-ability	Solder tails shall pass 95% min coverage	Solder temperature:265±5°C Duration:15±0.5sec . (EIA-364-52)
Resistance to soldering heat	No physical damage shall occur	Pre heat:150~180°C,90±30sec. Heat:230°C min. , 35±5sec Peak temp.: 265°C max. Duration:2 cycles
Thermal shock	Contact resistance:10mΩ max Change for post test	Mated connector -55±3°C(30minutes),+85±2° C(30minutes) Perform this 1 cycle ,repeat 10 cycles (EIA-364-32C) condition 1
Humidity life	Withstand voltage: no breakdown Insulation resistance:100 MΩ Min. Contact resistance:10mΩ max. change for post test Appearance :no breakdown	Mated connector 25~65°C, 90~95% RH, 1 cycle:24 hours, 4cycles (EIA-364-31B)

Environmental & Other Performance

Temperature life (heat aging)	Withstand voltage: no breakdown Insulation resistance:100 MΩ Min. Contact resistance:10mΩ max. change for post test Appearance :no breakdown	Mated connector to 105±2°C for 120 hours upon completion of the exposure period, test 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-364-17B)
Salt spray	Contact resistance:10 mΩ max change for post test appearance: by visual inspection terminal without noticeable rust	Subject mated connectors to 35±2°C and 5±1% salt condition for 48 hours. After test, rinse the sample with water and recondition the room temperature for 1 hour (EIA-364-26B)

8. Test Sequence

Test Item	Test Group									
	1	2	3	4	5	6	7	8		
1.Appearance	1，8	1，9	1，9	1，9	1，9	1，5	1，3	1，3		
2.Low level contact resistance	2，5	2，8	2，6	2，6	2，6	2，4				
3.Dielectric Withstanding Voltage	4，7		4，8	4，8	4，8					
4.Insulation Resistance	3，6		3，7	3，7	3，7					
5.Mating Force		3，6								
6.Un-mating Force		4，7								
7.Durability		5								
8.Solder-ability							2			
9.Resistance to soldering heat								2		
10.Thermal shock				5						
11.Humidity life			5							
12.Temperature life					5					
13.Salt spray						3				