



SPECIFICATION AND PERFORMANCE

Series	112J-TXAR-R01	File	112J-TXAR-R01_spec_2	Date	2024/05/07
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Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of below

Part Name	Description
112J-TDAR-R01	Micro SD Socket, Push-Push Type, Reel, H=1.85mm, w/switch, (w/Logo), 10u" Gold Plated
112J-TAAR-R01	Micro SD Socket, Push-Push Type, Reel, H=1.85mm, w/switch, (w/Logo), Gold Flash

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIALS		
NO.	PART NAME	DESCRIPTION
1	Housing	LCP+35%GF, Color: Black
2	Slider	LCP+35%GF, Color: Black
3	Contact	Phosphor Bronze Alloy (C5210) Contact area: Gold flash or Gold 10 u" Solder area: Gold flash All under-plated Ductile Nickel 50 u"(Min.)
4	Shell	Stainless SUS304, Gold Flash on Solder Area under 12u" Nickel (Min.)
5	Drag Link	Stainless SUS304 or SUS130M
6	Spring	Piano wire

RATING	
Rated Current	0.5A (Max.)/(1PIN)
Rated Voltage	100V AC/DC
Operating Temperature	-40°C to +90°C
Storage Temperature	-40°C to +90°C
Durability	10,000 Cycles

ELECTRICAL		
Item	Requirement	Test Condition
Contact Resistance	Initial:	Solder connectors on PCB and mate them

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	50 mΩ (Max)	together, measure by applying closed circuit current of 10mA maximum at open circuit voltage of 20mV (max). (JIS C5402 5.4)
Insulation Resistance	Initial: 1000 MΩ(Min).	Apply 500V DC between adjacent contacts, or contact and ground. (MIL-STD-202 METHOD 302)
Dielectric Withstanding Voltage	No breakdown	Mate connectors; apply 500V AC (rms.) between two adjacent for 1minute. (Trip current:1mA) (MIL-STD-202 METHOD 301)

MECHANICAL

Item	Requirement	Test Condition
Contact Retention Force	2.5N per pin (Min.)	Place a connector on the push-pull machine, then apply a force on a contact head and push the contact to the opposite direction of the contact insertion at the speed of 25 ± 3mm/min. (EIA364-29)
Durability	Finish 1.Contact Resistance: 80mΩ (Max) 2.No Damage	Solder connectors on PCB, then place them on the pull-push machine, and repeat mating and un-mating 10,000cycles repeatedly at a rate of 400~600 cycles/hour. (EIA364-09)
Vibration	Finish 1. No electrical discontinuity more than 0.1μs. 2 .No Damage 3. Contact Resistance: 80mΩ (Max)	Mate dummy card and subject to the following vibration conditions, for a period of 30 minutes in each of 3 mutually perpendicular axis, passing DC 1 mA during the test. Amplitude: 1.52 mm P-P or 19.6 m/s ² Frequency: 10-55-10Hz Shall be traversed in 1minute. (MIL-STD-202 METHOD 201)
Shock	Finish 1. No electrical discontinuity more than 0.1μs. 2 .No Damage 3. Contact Resistance: 80mΩ (Max)	Solder connectors on PCB and mate them together, subject to he following shock conditions, 3 shocks shall be period along 3 mutually perpendicular axis, passing DC 1mA current during the test. 1 axis, plus-minus direction, core 3times.(total:18times) 490m/s ² (MIL-STD-202 METHOD 213)
Card Insertion / Eject Force	9.8N(Max)	Push the card at the speed rate 25 ± 3 mm/minute.
Card Release Force	2N+/-1N	From the state of the card lock, Pull the card at the speed rate 25 ± 3 mm/minute.
Push in strength	No Damage	The card inserted in positive and the opposite

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		direction and the load of 19.6N is added
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ENVIRONMENTAL

Item	Requirement	Test Condition
Humidity	Finish 1. Contact Resistance: 80mΩ (Max) 2. Insulation Resistance: 100MΩ (Min)	Humidity storage at +40°C with 90~95% RH for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned for 1 of 2 hrs, then 10 mating cycles while. (EIA364-31)
Temperature Cycle	Finish 1. Contact Resistance: 80mΩ (Max) 2. Insulation Resistance: 100MΩ (Min)	Stage Temp Time t1 -55°C 30 min t2 -55~+90°C 3 min t3 +90°C 30 min t4 +90~-55°C 3 min Test time: 6 cycles (JIS C0025)
Heat Resistance	Finish 1. Contact Resistance: 80mΩ (Max) 2. Insulation Resistance: 100MΩ (Min)	Solder connectors on PCB and mate them together, expose to 90 ± 20°C for 96hrs. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 of 2hrs, after which the specified measurements shall be performed. (MIL-STD-202 METHOD 108)
Cold Resistance	Finish 1. Contact Resistance: 80mΩ (Max) 2. Insulation Resistance: 100MΩ (Min)	Solder connectors on PCB and mate them together, expose to -55 ± 30°C for 96hrs. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 of 2hrs, after which the specified measurements shall be performed. (EIA364-59)
Salt Spray	Finish 1. Contact Resistance: 80mΩ (Max) 2 .No Damage	5 ± 1% salt solutions, at 35 ± 2°C duration 48 hours. Connectors detached (MIL-STD-1344)

SOLDER ABILITY

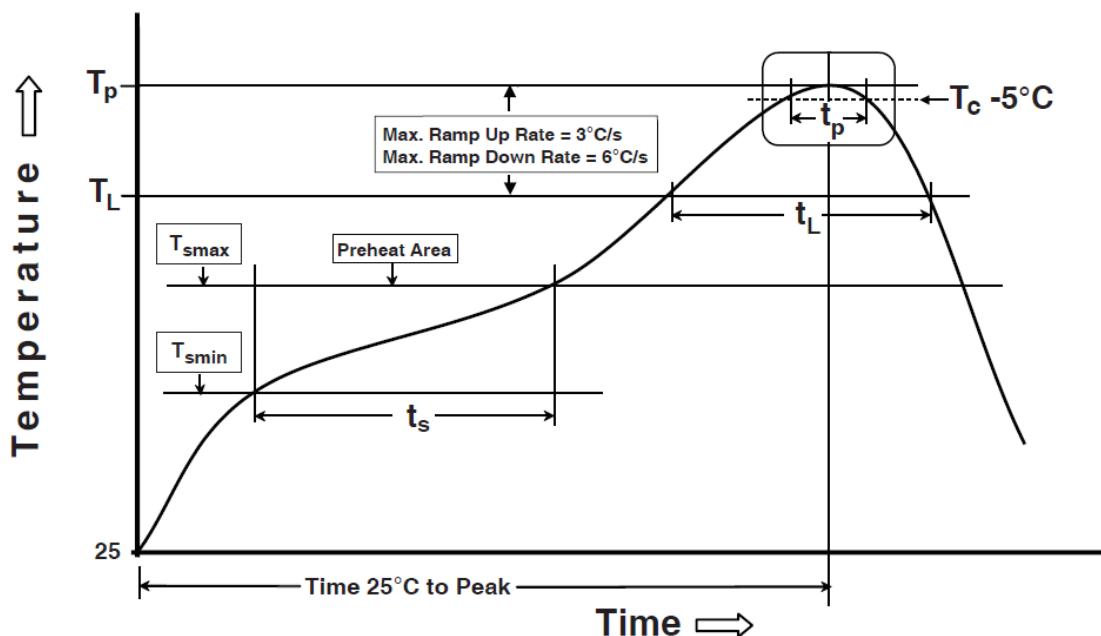
Item	Requirement	Test Condition
Solder ability	95%of immersed area must show no voids, pin holes.	Dip solder tails into the molten solder(held at 230±5°C) up to 0.5mm from the tip of tails for 3±0.5 seconds. (MIL-STD-202 METHOD 208)
Resistance to soldering heat	No melting, cracks or functional damage allowed	All connectors designed for PCB soldering within this specification must be able to

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		withstand the heat from solder oven according to the graph below. The cycle should be repeated twice. (MIL-STD-202 METHOD 210)
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Reflow Profile



Preheating temperature: 150 ~ 200°C, 60~120 seconds

Liquidus temperature (TL): 217°C, 60~150 seconds

Peak temperature: 260°C

Time within 5 °C of peak temperature (Tc): 255°C, 30seconds