

#### SPECIFICATION AND PERFORMANCE

SERIES: 112C-TXAR-R02 FILE: 112C-TXAR-R02\_spec

DATE:

2012/10/25

### Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of 112C-TXAR-R02.

### **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.

MATERIAL AND FINISH		
INSULATOR	Material	Housing: LCP UL 94V-0 Black
CONTACT	Material	Contact: Phosphor Bronze C5210
	Plating	Gold plated overall.
SHELL OR COVER	Material	Fork: Stainless Steel
		Shell: Stainless steel t=0.2mm
	Plating	Tin plated over Nickel.
RATING	Current rating: 0.5A max.	
	Voltage rating: 10V DC	
	Operating Temperature : $-40^{\circ}\!$	
	Storage Temperature : $-40^{\circ}\text{C} \sim + 85^{\circ}\text{C}$	



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ELECTRICAL		
Item	Requirement	Test Condition
Contact Resistance	80mΩ Max.	The T-FLASH SOCKET and T-FLASHCARD
		were mated. Low-level current was applied
		and resistance measurements were taken.
		(20mV Max., 10mA) EIA-RS -364-23A
Insulation Resistance	1000MΩ Min.	Test between adjacent contacts on
		unmated connectors at the potential of
		500V DC. It was applied between all
		contacts.
		EIA-RS-364-21A
Dielectric	1. 500V AC R.M.S. for	The potential was applied between
Withstanding Voltage	one minute.	adjacent contacts of the connector for one
	2. No evidence of	minute.
	flashover or	EIA- RS-364-20A
	breakdown.	

MECHANICAL		
Item	Requirement	Test Condition
Durability	1. Appearance :	Mating and un mating samples for 5000
	No evidence of	cycles at maximum rate of 600 cycles per
	physical damage.	hour.
	2.Contact resistance:	EIA- RS-364-09A
	100m $\Omega$ Max(Finally).	
Vibration	1.Appearance:	The entire frequency range, from 10 to 55
	No evidence of	Hz and return to 10Hz shall be traversed in
	physical damage.	approximately 1 minute.
	2.Open circuit less	This motion shall be applied for 2 hours in
	than 1 microsecond.	each of 3 mutually perpendicular
		directions. (total of 6 hours) Amplitude:
		1.50mm Max.
		EIA-RS-364-28A, Condition I



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Retention Force	100 gf/pin Min.	Apply axial pull out force at the speed rate of 25±3 mm/minute.
		EIA-304-03
Mechanical Shock	Contact Resistance:	Mate connector and subject the following
	100mΩ max	shock conditions. 3 shocks shall be
	Appearance:	applied along 3 mutually perpendicular axes.
	No visual damage	Test pulse: Half Sine
	Discontinuity:	Peak value: 490 m/s <sup>2</sup> (50 G)
	1.0 µsec Max.	Velocity change: 3.44 m/s
		Pulse duration: 11 msec
		EIA-364-27, test condition A

	ENVIRONI	MENTAL
Item	Requirement	Test Condition
Temperature	1.Appearance : No	The specimens shall be subjected to a
Life( Heat )	evidence of physical	temperature of $85^\circ\!$
	damage.	placed in ambient temperature for more
	2.Contact Resistance:	than 3 hours.
	100mΩ Max.(Finally)	MIL-STD-1344A, Method 1005.1
	3.Insulation Resistance:	
	100MΩ Min.	
Temperature	1.Appearance : No	The specimens shall be subjected to a
Life( Cold )	evidence of physical	temperature of -25 $^{\circ}$ C for 96 hours, then
	damage.	placed in ambient temperature for more
	2.Contact Resistance:	than 3 hours.
	100mΩ Max.(Finally)	MIL-STD-1344A, Method 1005.1
	3.Insulation Resistance:	



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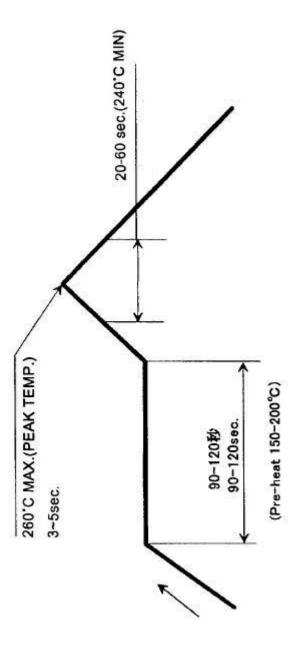
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	100MΩ Min.	
Humidity	1.Appearance : No	The specimens shall be placed in a No
	evidence of physical	evidence of chamber and subjected to a
	damage.	relative humidity of 90% to 95% and a
	2. Contact resistance:	temperature of $40\pm2^{\circ}$ for 96 hours, then
	100mΩ Max.	placed in ambient temperature for more
	3.Insulation resistance:	than 1 hour.
	100MΩ Min.	EIA-RS-364-31A
Salt Spray	Contact resistance:	The specimens shall be subjected to a salt
	100m $\Omega$ Max(Finally).	water spray (concentration: 5±1%) at a
		temperature of $35\pm2^{\circ}$ for 24 hours, then
		placed in ambient temperature for more
		than 1 hour.
		EIA-RS-364-26A

SOLDER ABILITY			
Item	Requirement	Test Condition	
Solder ability	1. Appearance: No	After 5~10 seconds flux deep. Subject	
	evidence of	connector lead to solder bath at 235°C±3°C	
	Physical damage.	for 5±0.5 seconds.	
	2. More than 95%	MIL-STD-202F, Method 208	
	of the solder able		
	area shall be		
	covered with		
	solder.		
Resistance to	No evidence of	The connector shall be tested resistance. To	
Soldering heat	Physical damage.	soldering heat in the following conditions.	
		For RoHS $260^{\circ}$ C $10\pm0.5$ seconds.	



(TEMPERATURE CONDITION GRAPH (TEMPERATURE ON BOARD PATTERN SIDE)



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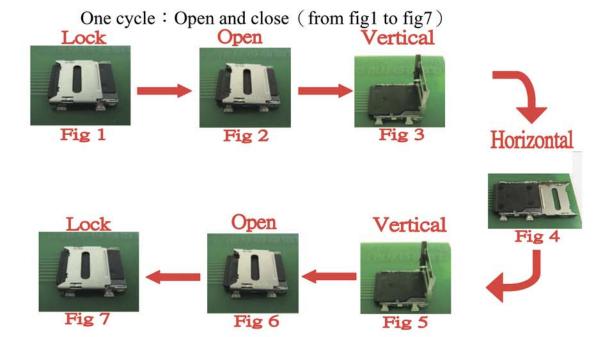
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Commercial standards, specifications and report Open and close the shell with 5000 cycles.

## **Testing Condition**





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# **Testing Result**

Initial Test Condition (3 specimen):







After Test Condition (3 specimen):













Testing Conclusion : No visual damage.