



RELIABILITY TEST REPORT

TESTITEM: 1.ELECTRICAL
2.MECHANICAL
3.ENVIRONMENTAL

SERIES NO.: CH11 Series

TEST EQUIPMENT: 1.INSERTION & REMOVAL APPARATUS
2.ELECTRONIC MEASURING APPARATUS
3.ENVIRONMENTAL APPARATUS

DATE OF TESTING: 10 / 15 / 03

TEST DEPART: QA

TESTER: *Pts*

CONTAIN: ATTACHED

REVIEWED: *LTH* APPROVED: *LTH* VERIFIED: *Pts*

I. ELECTRICAL PERFORMANCE :

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
1-1	Contact resistance	Dry circuit of DC 20mV max.100mA max.	Less than 20 mΩ	Sample	20 mΩ max.
				1	6.08 m
				2	7.23 m
				3	6.42 m
				4	7.02 m
				5	6.22 m
1-2	Dielectric strength	When applied AC 1000V 1 minute between adjacent terminal	No change	Sample	1000 V 1 minute
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
1-3	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ	Sample	1000 MΩ min.
				1	60*10 ⁵ MΩ
				2	70*10 ⁵ MΩ
				3	60*10 ⁵ MΩ
				4	80*10 ⁵ MΩ
				5	50*10 ⁵ MΩ

2. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
2-1	Pin retention force	Push pin from insulator base at speed 25±3mm per minute	More than 0.8 Kgf	Sample	0.8Kgf min.
				1	1.56 Kgf
				2	1.77 Kgf
				3	1.62 Kgf
				4	1.52 Kgf
				5	1.58 Kgf

3. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	TEST RESULT	
3-1	Solderability	Soldering time: 5 ±0.5 sec. Soldering pot:230 ±5	Minimum: 90% of immersed area	Sample	90% of Immersed area
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-2	Resistance to soldering heat	Insulator: Glass filled polyester UL 94V-0 Soldering time: 5 ±0.5 sec. Soldering pot:260 ±5	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass

		Insulator: Nylon 6T Max. Infrared Reflow Soldering temperature & time : 230 for 60 sec 260 for 10 sec	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-3	Heat aging	105 ± , 96 hours	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-4	Humidity	40 ± , 90-95%RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	6.18 m
				2	7.33 m
				3	6.46 m
				4	7.16 m
				5	6.42 m
			Dielectric strength: To pass Para 1-2	Sample	Pass para 1-2
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
3-5	Temperature cycling	One cycle consists of: 1. -55 ⁺⁰ ₋₃ , 30 min 2. Room temp. 10-15 min 3. 85 ⁺³ ₀ , 30 min 4. Room temp. 10-15 min	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
				5	Pass
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	6.21 m
				2	7.32 m
				3	6.44 m
				4	7.12 m
				5	6.23 m

3-6	Salt spray	Temperature:35±3° C Solution:5±1% Spray time:48±4hours Measurement must be taken after water rinse	Appearance: No damage	Sample	No damage
				1	Pass
				2	Pass
				3	Pass
				4	Pass
			5	Pass	
			Contact resistance: Less than twice of initial	Sample	< twice of initial
				1	6.13 m
				2	7.33 m
				3	6.48 m
4	7.22 m				
5	6.32 m				

4. AMBIENT TEMPERATURE RANGE

-40 to + 105°C ; + 215°C intermittent (Vapor Phase Solder Reflow) for SMT type.