

<b>ENGINEERING DEPT.</b>		<b>PRODUCT SPECIFICATION</b>	<b>SPEC.NO.: SPCI143A</b>
<b>REVISIONS</b>	<b>ECNT116090</b>	<b>For CI63 Connectors</b>	<b>PAGE: 1/4</b>

1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and below standards base on CviLux test procedure

2. APPLICABLE STANDARDS:

MIL - STD - 202	Methods for test of connectors for electronic equipment
MIL - STD - 1344	Test methods for electrical connectors
J-STD-020	Resistance to soldering Temperature for through hole Mounted Devices
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: **CI63\*\*M\*VR0-NH**  
**CI63\*\*S0000**  
**CI63T01\*PP0**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD: 1.6 mm (.063")



REVIEWED : Eisley APPROVED : Clark VERIFIED : Clark .

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**7. ELECTRICAL PERFORMANCE:**

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		2.0A 50V AC/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max. 10 mA max.	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 100 MΩ
7.5	Contact resistance on crimped portion	Crimp the applicable wire on to the terminal measure by dry circuit 20mV Max. 10mA	Less than 10 mΩ

**8. MECHANICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT	
8.1	Terminal crimp Tensile strength	When crimped AWG#28 size wire When crimped AWG#30 size wire	More than 1.0 Kgf More than 0.8 Kgf	
8.2	Pin retention force	Push pin from insulator base at speed 25 ±3 mm per minute	More than 100 gram	
8.3	Terminal retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 0.40 Kgf	
8.4	Terminal insertion force in insulator	Insertion speed 25± 3 mm per minute from housing	Less than 0.50 Kgf	
8.5	Mating & Unmating Force	Speed 25± 3 mm per minute	Mating	2P: Less than 1.84 kgf 3P: Less than 2.14 kgf 4P: Less than 2.45 kgf 5P: Less than 2.76 kgf
			Unmating	2~5P: More than 0.12 kgf
8.6	Durability	Connector shall be subjected to 50 cycles of insertion and withdrawal	Contact resistance: Less than 20 mΩ	

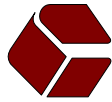
**9. ENVIRONMENTAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current	30°C max.



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	ITEM	TEST CONDITION	REQUIREMENT
9.2	Vibration	1.5 mm 10 - 55 - 10 HZ/minute each 2 hours for X,Y and Z directions	Appearance: No damage Contact resistance: Less than 20 mΩ Discontinuity: 1 micro second max.
9.3	Shock	490m/s <sup>2</sup> {50G}, 3 strokes in each X,Y,Z axes	Appearance: No damage Contact resistance: Less than 20 mΩ Discontinuity: 1 micro second max.
9.4	Solder ability	Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 95% of immersed area
9.5	Resistance to soldering heat	Lead-Free Process for SMT Type: Refer Reflow temperature profile(11.1)	No damage
9.6	Heat aging	85± 2°C, 96 hours	Appearance: No damage Contact resistance: Less than 20 mΩ
9.7	Cold Resistance	-25± 5°C, 96 hours	Appearance: No damage Contact resistance: Less than 20 mΩ
9.8	Humidity	40±2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than 20 mΩ Dielectric strength: Must meet 7.3 Insulation resistance: More than 100 MΩ
9.9	Temperature cycling	One cycle consists of : (1) -55 <sup>+0</sup> <sub>-3</sub> °C , 30 min. (2)Room temp. 10-15 min. (3) 85 <sup>+3</sup> <sub>-0</sub> °C , 30 min. (4)Room temp. 10-15 min. Total cycle: 10 cycle	Appearance: No damage Contact resistance: Less than 20 mΩ



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	ITEM	TEST CONDITION	REQUIREMENT
9.10	Salt spray	Temperature: $35 \pm 3^\circ\text{C}$ Solution: $5 \pm 1\%$ Spray time: $48 \pm 4$ hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than $20\text{ m}\Omega$

10. AMBIENT TEMPERATURE RANGE:  $-25$  to  $+85^\circ\text{C}$

11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste

