**ENGINEERING** 

## PRODUCT SPECIFICATION

SPEC.NO.: SPCB029B

DEPT.

For 2.54 mm (.100") Board to Board Connectors of System CB87

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#### 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 MIL - STD - 1344 Methods for test of connectors for electronic equipment

Test methods for electrical connectors

3. APPLICABLE SERIES NO.: CB87 Series

## 4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

#### 5. MATERIALS

See attached drawings

#### 6. ACCOMMODATED P.C.BOARD

1.6 mm (.063")



REVIEWED: Alex APPROVED: David VERIFIED: Jim .



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## 7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		3A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max. 100 mA max.	Less than $20 \text{ m}\Omega$
7.3	Dielectric strength	When applied AC 1000 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than $1000 \text{ M}\Omega$

# 8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute form housing	More than 800 gram
8.2	Single contact insertion force	Measure force to insertion using 0.64 mm square pin at speed 25± 3 mm per minute	800 gram max.
8.3	Single contact withdrawal force	Measure force to withdrawal using 0.64 mm square pin at speed 25± 3 mm per minute	30 gram min.
8.4	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial

## 9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Vibration	1.5 mm 10 - 55 - 10 HZ/minute each 2 hours for X,Y and Z directions	Appearance: No damage Discontinuity: 1 micro second max.
9.2	Solderability	<b>Tin-Lead Process:</b> Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5 °C	Minimum: 90% of immersed area
9.3	Resistance to soldering heat	<b>Tin-Lead Process:</b> Soldering time: 5 ± 0.5 second Soldering pot: 240 ± 5 ° C	No damage
9.4	Heat aging	105± 2°C, 96 hours	No damage

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	ITEM	TEST CONDITION	REQUIREMENT
9.5	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 twice of initial Dielectric strength: To pass para 7-3
9.6	Temperature cycling	One cycle consists of:  (1) -55 +0 °C, 30 min.  (2)Room temp. 10-15 min.  (3) 85 -0 °C, 30 min.  (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
9.7	Salt spray	Temperature: 35± 3°C Solution: 5± 1% Spray time: 48± 4 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE: -40 to + 105°C