**ENGINEERING** 

# PRODUCT SPECIFICATION

SPEC.NO.: SPCB016B

DEPT.

For 2.00 mm (.079") Board to Board Connectors of System CB74

**PAGE: 1/4** 

#### 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.: CB74 Series

### 4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

#### 5. MATERIALS

See attached drawings

### 6. ACCOMMODATED P.C.BOARD

 $0.8 \text{ mm} (.031'') \sim 1.6 \text{ mm} (.063'')$ 



REVIEWED: <u>Alex</u> APPROVED: <u>David</u> VERIFIED: <u>Jim</u>.



ENGINEERING	PRODUCT SPECIFICATION	SPEC.NO.:	SPCB016B
DEPT.	For 2.00 mm (.079") Board to Board Connectors of System CB74	PAGE:	2/4

# 7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		1A 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 MΩ

## 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 400 gram
8.2	Single contact insertion force	Measure force to insertion using 0.46 mm square pin at speed 25± 3 mm per minute	600 gram max.
8.3	Single contact withdrawal force	Measure force to withdrawal using 0.46 mm square pin at speed 25± 3 mm per minute	20 gram min.
8.4	Durability	Connector shall be subjected to 50 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	Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C  Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area



**ENGINEERING** 

DEPT.

# **PRODUCT SPECIFICATION**

For 2.00 mm (.079") Board to Board Connectors of System CB74 SPEC.NO.: SPCB016B

**PAGE: 3/4** 

	ITEM	TEST CONDITION	REQUIREMENT
9.3	Resistance to soldering heat	DIP Type Tin-Lead Process:	No damage
		Soldering time: 5 ± 0.5 second	
		Soldering pot: 240 ± 5°C	
		<b>DIP Type Lead-Free Process</b>	
		Soldering time: 5 ± 0.5 second	
		Soldering pot: 260 ± 5°C	
		SMT Tin-Lead Type Process:	
		Refer Reflow temperature profile(11.1)	
		Soldering time: 10 second Max.	
		Soldering pot: 230 ± 5 °C	
		SMT Type Lead-Free Process:	
		Soldering time: 20 second Max.	
		Soldering pot: 250~260°C	
		Refer Reflow temperature profile(11.2)	
9.4	Heat aging	105± 2°C, 96 hours	No damage
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 +3 °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	Appearance: No damage Contact resistance: Less than twice of initial
		rinse	

**ENGINEERING** 

## PRODUCT SPECIFICATION

DEPT.

For 2.00 mm (.079") Board to Board Connectors of System CB74 SPEC.NO.: SPCB016B

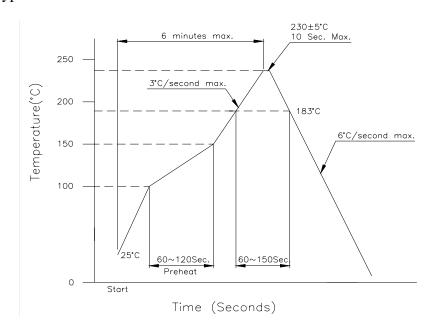
**PAGE: 4/4** 

## 10. AMBIENT TEMPERATURE RANGE:

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

## 11. Recommended IR Reflow Temperature Profile:

## 11.1 Using Typical Solder Paste



## 11.2 Using Lead-Free Solder Paste

