



# **General Plating**

## **TABLE- 1 (Tin-Plated)**

Plating Code	Top Plating Thickness	Under Plating Thickness	Area	Match Type
	$30\mu$ " Tin Min.	Reflow Plated	Overall	Crimp clip terminal
	$80\mu$ " Tin Min.	$30 \mu$ " Nickel Min.	Overall	Crimp clip terminal
1	$100\mu$ " Tin Min.	$30 \mu$ Nickel Min.	Overall	Solder tail terminal & Board in terminal
	$120\mu$ " Tin Min.	30 μ Nickel Min.	Overall	Square or round pin
	$120\mu$ " Tin	$50 \mu$ Nickel Min.	Overall	SMT type terminal

## **TABLE-2 (Gold -Plated)**

Plating Code	Top Plating Thickness	Under Plating Thickness	Area	Match Type
	$0.8\mu$ " Gold Min.	$50\mu$ " Nickel Min.	Overall	Square or round pin
2	$1.2\mu$ " Gold Min.	$30\mu$ . INICKET WIIII.		Other type
3	$15\mu$ " Gold Min.	50 μ" Nickel	Overall	All type
4	$30\mu$ " Gold Min.	50 μ" Nickel	Overall	All type
5	$50\mu$ " Gold Min.	50 μ" Nickel	Overall	All type
7	$3 \mu$ " Gold Min.	50 μ" Nickel	Overall	All type
8	$80\mu$ " Gold Plated over	$50\mu$ " Nickel	Overall	CP35
9	$5\mu$ " Gold Plated over	50 μ" Nickel	Overall	All type
A	Selective $1.2\mu$ " Gold Flash	$50\mu$ " Nickel	Contact Area	All type
В	Selective 15 $\mu$ " Gold	$50 \mu$ " Nickel	Contact Area	All type
С	Selective 30 $\mu$ " Gold	50 μ" Nickel	Contact Area	All type



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D	Selective $10 \mu$ " Gold	50 μ" Nickel	Contact Area	All type
Е	Selective $50 \mu$ " Gold	$50\mu$ " Nickel	Contact Area	All type
F	Selective 80 $\mu$ " Gold	$50\mu$ " Nickel	Contact Area	CP35
G	Selective $5 \mu$ " Gold	50 μ" Nickel	Contact Area	CCF
I	Selective 15 $\mu$ " Gold	$1.2\mu$ " Gold Flash Plated over $50\mu$ " Nickel	Contact Area	All type
J	Selective 30 $\mu$ " Gold	$1.2\mu$ " Gold Flash Plated over $50\mu$ " Nickel	Contact Area	All type
K	Selective 5 $\mu$ " Gold	$80\mu$ " Nickel	Contact Area	All type

### SOLDERABILITY:

TEST ITEM	TEST CONDITION	PROCESS	TEST REQUIREMENT
Coldovobility	Soldering time: 5±0.5 Second Soldering pot: 230±5°C	Sn - Pb Process	Minimum:
Solderability	Soldering time: 3±0.5 Second Soldering pot: 245±5°C	Lead Free Process	95% of immersed area

**ENGINEERING** 

#### PRODUCT SPECIFICATION

SPEC.NO.: SPCB016B

DEPT.

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

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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 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> .



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## 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 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: $5 \pm 0.5$ second Soldering pot: $230 \pm 5$ °C Lead-Free Process: Soldering time: $3 \pm 0.5$ second Soldering pot: $245 \pm 5$ °C	Minimum: 90% of immersed area



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	ITEM	TEST CONDITION	REQUIREMENT
9.3	Resistance to soldering	DIP Type Tin-Lead Process:	No damage
	heat	Soldering time: $5 \pm 0.5$ second	
		Soldering pot: 240 ± 5 °C	
		DIP Type Lead-Free Process	
		Soldering time: $5 \pm 0.5$ 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 <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.	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

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DEPT.

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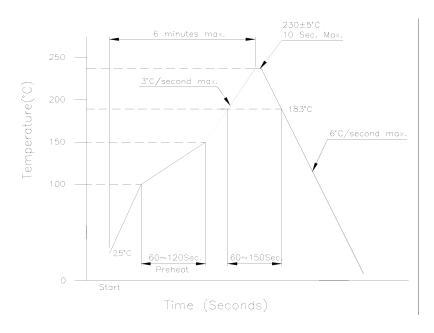
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### 10. AMBIENT TEMPERATURE RANGE:

-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

