



ENGINEERING DEPT.	PRODUCT SPECIFICATION For CS59 Series Mini PCI Express Connector	SPEC.NO.: SPCS029A
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1. SCOPE:

This specification contains the test requirement of subject Connector 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

3. APPLICABLE SERIES NO.: CS59 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")

6.2 P.C. Board Layout: See attached drawings

REVIEWED : David APPROVED : Eisley VERIFIED : Sun .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		0.5A 50V AC (r.m.s)
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 55 mΩ
7.3	Dielectric strength	When applied AC 200 V 1minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Contact retention force	Push pin from insulator base at speed 25±3 mm per minute	More than 0.2 kgf
8.2	Insertion force	Mating speed 25 mm/minute	2.3kgf max.
8.3	Withdrawal force	Unmating speed 25 mm/minute	2.3kgf max.
8.4	Durability	25 mating/unmating cycles	Contact resistance: Less than 40 mΩ

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	Soldering time: 5±0.5 second Soldering pot: 265±5°C	Minimum: 95% of immersed area
9.3	Resistance to soldering heat	Soldering time: 5±0.5 second Soldering pot: 260±5°C	No damage
9.4	Heat aging	125±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)-40 $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ °C , 30 min. (2)Room temp. 10-15 min. (3) 85 $\begin{smallmatrix} +3 \\ -0 \end{smallmatrix}$ °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 + 80°C