PRODUCT SPECIFICATION

0.8mm PITCH MINI PCI EXPRESS CONNECTOR

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
B1	EC No: **S2011-0490** DATE: **2010 /11/30**	0.8mm PITCH MINI PCI EXPRESS CONNECTOR	**1** of **8**

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PRODUCT SPECIFICATION

1.0 SCOPE

This product specification covers the performance requirements for the 0.8mm PITCH MINI PCI EXPRESS CONNECTOR.

1.1 PRODUCT NAME AND PART NUMBER

Product Name	Series Number
0.8mm PITCH MINI PCI EXPRESS CONNECTOR	48338
0.8mm PITCH MINI-PCI EXPRESS CONNECTOR,SINK TYPE	48344

2.0 APPLICABLE DOCUMENT

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

EIA-364

3.0 REQUIREMENTS

See The Appropriate Sales Drawings. For Information On Dimensions, Materials, Plantings and Markings.
"SD-48338-002, SD-48338-004, SD-48344-001, RSD-48344-001"

4.0 RATINGS

4.1 VOLTAGE

Voltage Rating : 50 VAC

4.2 CURRENT

Current Rating : 0.5 A

4.3 TEMPERATURE

Operating: -40°C to +85°C
Non-Operating: -40°C to +85°C

※ Including terminal temperature rise.

5.0 PERFORMANCE

5.1 TEST REQUIREMENTS AND PROCEDURES SUMMARY

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Examination of Product	Visual inspection	Meets requirements of product drawing. No physical damage.

5.2 ELECTRICAL REQUIREMENTS

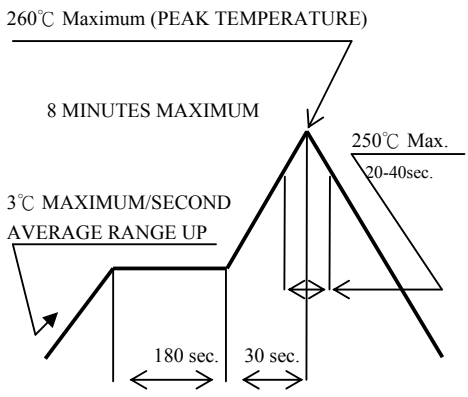
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
2	Contact Resistance (Low Level)	Mate connectors, measure by dry circuit, 20mV Max., 100mA Max. EIA-364-23	55 milliohms Max. (initial) After test : ΔR:20 milliohm Max.
3	Insulation Resistance	Mate connectors, apply 500 V DC between adjacent terminal or ground. EIA-364-21	500 Megohm min.
4	Dielectric Withstanding Voltage	Mate connectors; apply 300V AC for 1 minute between adjacent terminal or ground. EIA-364-20	No breakdown; Current leakage:1 mA MAX.
5	Temperature Rise	Mate connectors and measure the temperature rise of contact when the Maximum AC rated current 0.5A is passed. EIA-364-70	Temperature Rise: 30°C Max.
6	Insertion Loss	A common test fixture for connector characterization shall be used. This is differential insertion loss requirement. EIA-364-101	1dB Max. Up to 1.25 GHz; ≦[1.6*(F-1.25)+1] dB for 1.25 GHz<F≦3.75 GHz (For example, ≦5 dB at F=3.75 GHz)
7	Return Loss	A common test fixture for connector characterization shall be used. This is differential insertion loss requirement. EIA-364-108	≦12dB up to 1.3 GHz; ≦-7dB up to 2 GHz; ≦-4dB up to 3.75 GHz;
8	Next Cross-talk	A common test fixture for connector characterization shall be used. This is differential cross-talk requirement. EIA-364-90	-32dB up to 1.25 GHz; ≦-[32-2.4*(F-1.25)] dB for 1.25 GHz<F≦3.75 GHz (For example, ≦-26 dB at 3.75 GHz)

5.3 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT

9	Mating / Unmating Force	Card mating/Unmating sequence: a.) Insert the card at the angle specified by the manufacturer b.) Rotate the card into position. c.) Reverse the installation sequence to unmated Operation Speed：25.4 ± 3 mm/minute. Measure the force required to mate/Unmate connector. EIA-364-13	Force: 2.3Kgf Max
10	Durability	The sample should be mounted in the tester and fully mated and unmated 50 cycles specified at the rate of 25.4 ± 3 mm/min. EIA-364-09	20 milliohms MAX. (change from initial)
11	Vibration	The electrical load condition shall be 100 mA maximum for all contacts. Subject to a simple harmonic motion having amplitude of 0.76mm (1.52mm maximum total excursion) in frequency between the limits of 10 and 55 Hz. The entire frequency range, from 10 to 55 Hz and return to 10 Hz, shall be traversed in approximately 1 minute. This motion shall be applied for 2 hours in each of three mutually perpendicular directions. EIA-364-28	20 milliohms MAX. (change from initial) & Discontinuity< 1 microsecond
12	Shock (Mechanical)	Subject mated connectors to 50 G's (peak value) half-sine shock pulses of 11 milliseconds duration. Three shocks in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts. EIA-364-27	20 milliohms MAX. (change from initial) & Discontinuity< 1 microsecond
13	Terminal / Housing Retention Force	Apply axial pull out force at the speed rate of 25 ＋/－3 mm/minute on the terminal assembly in the housing	2.5 N Min.
14	Nail / Housing Retention Force	Apply axial pull out force at the speed rate of 25 ＋/－3 mm/minute on the terminal assembly in the housing	2.5 N Min.

15	Thermal Shock	Mate module and subject to follow condition for 10 cycles. 1 cycles: -55 +0/-3 □, 30 minutes +85 +3/-0 □, 30 minutes EIA-364-32	20 milliohms MAX. (change from initial) & Visual: No Damage
16	Cyclic Temperature and Humidity	Mate module and subject to 5 cycle. Between 25℃ +/- 3℃ at 80% +/- 3% RH. and 65℃ +/- 3℃ at 50% +/- 3% RH. dwell time of 1 hour; ramp time of 0.5 hours. 24 cycles. (EIA-364-31, Test condition A)	20 milliohms MAX. (change from initial) & Visual: No Damage
17	Temperature life	Subject mated connectors to temperature life at 85℃±3℃ for 96 hours. Measure Signal. (EIA-364-17, Test condition A)	20 milliohms MAX. (change from initial) & Visual: No Damage
18	Salt Spray	Subject mated/unmated connectors to 5% salt-solution concentration,35℃± 2℃for 48 hours. (EIA-364-26,Test condition B)	20 milliohms MAX. (change from initial) & Visual: No Damage
19	Solderability	Subject the test area of contacts into the flux for 5-10 sec. And then into solder bath, Temperature at 245 ±5℃, for 4-5 sec. (EIA-364-52)	Solder able area shall have minimum of 95% solder coverage.
20	Hand soldering	Hand Soldering: Temperature:360±5□, 3 sec.	Visual: No Damage

21	Resistance To Soldering Heat	INFRARED REFLOW CONDITIONS  (preheat temperature:150~200℃ MAXIMUM) TEMPERATURE CONDITION GRAPH (TEMPERATURE ON BOARD PATTERN SIDE)	Appearance : No damage after 1 time of reflow

6.0 PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE

Test Item	Test Group										
	A	B	C	D	E	F	G	H	I	J	K
Examination of Product				1,10	1,5		1,9	1,3		1,3	
Contact Resistance (Low Level)	1,5	1,4		2,7	2,4	1,7	2,8				
Insulation Resistance				3,8		2,5	3,6				
Dielectric Withstanding Voltage				4,9		3,6	4,7				
Temperature Rise						4					
Insertion Loss											1
Return Loss											2
Next Cross-talk											3
Mating / Unmating Force	2,4										
Durability	3										
Vibration		2									
Shock (Mechanical)		3									
Terminal / Housing Retention Force									1		
Nail / Housing Retention Force									2		
Thermal Shock				5							
Cyclic Temperature and Humidity				6							
Temperature life							5				
Salt Spray					3						
Solderability			1								
Hand soldering										2	
Resistance To Soldering Heat								2			
Sample Size*	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**

All Test samples need to be PCB mounted.