

PCI Express Card Edge CONNECTOR, Vertical, DIP Type

1. INTRODUCTION

1.1. PURPOSE

Testing was performed on the Tyco Electronics **PCI Express Card Edge CONNECTOR, Vertical, DIP Type** to determine its conformance to the requirements of Product Specification 108-57859, Revision A.

1.2. SCOPE

This report covers the electrical, mechanical, and environmental performance of the Tyco Electronics **PCI Express Card Edge CONNECTOR, Vertical, DIP Type**.

1.3. CONCLUSION

The Tyco Electronics **PCI Express Card Edge CONNECTOR, Vertical, DIP Type** meets the electrical, mechanical, and environmental performance requirements of Product Specification 108-57859, Revision A.

1.4. PRODUCT DESCRIPTION

The **PCI Express Card Edge CONNECTOR, Vertical, DIP Type** is designed for printed circuit board applications of PC industry.

1.5. TEST SAMPLES

Test specimens were randomly selected from normal current production lots, and the following Product were used for test :

Test Group	Quantity	Description	Part Number
A, B, C, D, E, F, G, H	5 EA.	PCI Express Card Edge CONNECTOR, Vertical, DIP Type	2041238-1

1.6. QUALIFICATION TEST SEQUENCE

Test or Examination	Test Group							
	A	B	C	D	E	F	G	H
	Test Sequence (a)							
Examination of product.	1, 9	1, 8	1, 10	1, 8	1, 8	1, 3	1, 3	1, 3
Low level contact resistance.	3, 7	2, 5, 7	2, 5, 7, 9	2, 5, 7				
Dielectric withstanding voltage.					2, 6			
Insulation resistance.					3, 7			
Mating force.	2, 6							
Unmating force.	4, 8							
Durability.	5	3	3	3				
Reseating.		6	8					
Vibration, random.				6				
Solderability.						2		
Resistance to wave soldering heat.							2	
Temperature life.		4						
Temperature life (Preconditioning).				4				
Thermal shock.			4		4			
Humidity-temperature cycling.			6		5			
Contact current rating/ Temperature rise.								2

NOTE : (a) Numbers indicate sequence in which tests are performed.

(b) Discontinuities shall not take place in this test group, during tests.

Figure 1

2. TEST RESULT

Test Group	Test Description	Requirement	Test Result				Judgment
			Max.	Min.	Ave.	Std. Dev.	
A	Examination of product.	Meets product drawing.	PASSED				Accepted
	Mating Force	117 g/contact pair max	63.69	58.46	61.51	2.03	Accepted
	Low level contact resistance	30 mΩ max.	14.25	10.57	12.35	1.14	Accepted
	Unmating Force	20 g/per contact pair min.	33.57	26.73	29.59	1.97	Accepted
	Durability	No damage	PASSED				Accepted
	Mating Force	117 g/contact pair max	61.38	55.97	58.65	2.44	Accepted
	Low level contact resistance	30 mΩ max.	18.57	14.38	16.84	1.08	Accepted
	Unmating Force	20 g/contact pair min.	35.52	32.42	33.90	0.99	Accepted
	Examination of Product	Meets product drawing.	PASSED				Accepted
B	Examination of product	Meets product drawing.	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	15.60	10.21	12.86	1.92	Accepted
	Durability	No damage	PASSED				Accepted
	Temperature life	No damage	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	20.15	14.57	17.05	1.26	Accepted
	Reseating	No damage	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	22.32	17.42	19.74	1.28	Accepted
	Examination of Product	Meets product drawing.	PASSED				Accepted
C	Examination of product	Meets product drawing.	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	15.34	9.58	12.25	1.42	Accepted
	Durability	No damage	PASSED				Accepted
	Thermal shock	No damage	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	18.37	14.02	16.21	1.17	Accepted
	Humidity-temperature cycling	No damage	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	19.08	15.82	17.59	1.06	Accepted
	Reseating	No damage	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	22.54	17.75	20.59	1.49	Accepted
	Examination of product	Meets product drawing.	PASSED				Accepted
D	Examination of Product	Meets product drawing.	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	15.01	9.15	12.29	1.77	Accepted
	Durability	No damage	PASSED				Accepted
	Temperature life (Preconditioning)	No damage	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	18.36	15.47	16.86	0.84	Accepted
	Vibration, random	No discontinuities of 1 us Or longer duration	PASSED				Accepted
	Low level contact resistance	30 mΩ max.	22.94	18.06	20.58	1.37	Accepted
	Examination of Product	Meets product drawing.	PASSED				Accepted

Test Group	Test Description	Requirement	Test Result				Judgment
			Max.	Min.	Ave.	Std. Dev.	
E	Examination of product	Meets product drawing.	PASSED				Accepted
	Dielectric withstanding Voltage	No breakdown or flashover	PASSED				Accepted
	Insulation Resistance	1000 MΩ Min	PASSED				Accepted
	Thermal shock	No damage	PASSED				Accepted
	Humidity-temperature cycling	No damage	PASSED				Accepted
	Dielectric withstanding Voltage	No breakdown or flashover	PASSED				Accepted
	Insulation Resistance	1000 MΩ Min	PASSED				Accepted
	Examination of Product	Meets product drawing.	PASSED				Accepted
F	Examination of Product	Meets product drawing.	PASSED				Accepted
	Solderability	95% solder coverage min..	PASSED				Accepted
	Examination of Product	Meets product drawing.	PASSED				Accepted
G	Examination of Product	Meets product drawing.	PASSED				Accepted
	Resistance to wave soldering heat	No damage	PASSED				Accepted
	Examination of Product	Meets product drawing.	PASSED				Accepted
H	Examination of Product	Meets product drawing.	PASSED				Accepted
	Contact current rating/ Temperature rise	Less than 30°C temp rise.	PASSED				Accepted
	Examination of Product	Meets product drawing.	PASSED				Accepted