DYNAMIC D-1000 SERIES CONNECTOR

1. Introduction

1.1 Purpose

This document provides the qualification summary of TE Connectivity Dynamic D-1000 connectors, with extend product of pre-tin contacts.

1.2 Scope

This specification covers the electrical, mechanical, and environmental performance of Dynamic D-1000H connectors. Testing was performed from 2020/05/21 to 2020/06/05.

1.3 Conclusion

Based on the test results, the parts in the sample list meet the performance requirements of Product Specification, 108-137366 Rev. B.

1.4 Product Description

Testing part	Testing part description	Mating housing	Mating contact
1-2372488-7	Dynamic D1000, HDR ASSY (H-TYPE)34POS, Pre-Tin	1-2333134-7	1871303-1

2. Qualification Test Sequence

	Test Group									
	1	2	3	4	5	6	7	8	9	10
	Test sequence									
Test Examination										
Confirmation of product	1	1	1	1,3	1,3	1,3	1	1	1	1
Termination Resistance							2,5	2,6	2,4	2,6
Dielectric withstanding voltage										4,8
Insulation Resistance										3,7
Temperature rising					2					
Vibration (High Frequency)							3			
Physical Shock							4			
Connector Mating Force								3		
Connector Unmating Force								4		
Contact Insertion Force				2						
Contact Mating Force per PIN		2								
Contact Unmating Force per PIN		3								
Crimping tensile strength	2									
Durability								5		
Housing Locking Strength			2							
Panel Locking Strength										
Humidity-temperature cycling										5
Thermal Shock									3	
Salt Spray										
Contact Retention Force						2				
Temperature life										
Industrial SO_2										
Post Retention Force										
Solderability										
Resistance to Solder Heat										

Test or Examination	Test Group						
	11	12	13	14	15	16	17
	Test Sequence						
Test Examination							
Confirmation of product	1,4	1	1	1	1	1,3	1
Termination Resistance	2,5	2,4	2,4				
Dielectric withstanding voltage							
Insulation Resistance							
Temperature rising							
Vibration (High Frequency)							
Physical Shock							
Connector Mating Force							
Connector Unmating Force							
Contact Insertion Force							
Contact Mating Force per PIN							
Contact Unmating Force per PIN							
Crimping tensile strength							
Durability							
Housing Locking Strength							
Panel Locking Strength							2
Humidity-temperature cycling							
Thermal Shock							
Salt Spray	3						
Contact Retention Force							
Temperature life		3					
Industrial SO_2			3				
Post Retention Force				2			
Solderability					2		
Resistance to Solder Heat						2	

Notes:

a. Numbers indicate the sequence in which the tests are performed.

b. Test arrangement

Testing part	Testing part description	Test group	Plating
1-2372488-7	Dynamic D1000, HDR ASSY (H-TYPE) 34POS, Pre-Tin	8,10,11,13	Tin Plating

3. Test result

Group	Sequence	Test items	Requirements	Test data	Result
Group 8	1	Examination of Product	Meets requirements of product drawing and Specification 114-5377	No physical damage	Accept
	2	Termination Resistance (Low Level)	10mΩ Max. (Initial)	2.3~5.6mΩ	Accept
	3	Connector Mating Force	100 N Max.	58.7~68.6N	Accept
	4	Connector Unmating Force	0.58NX POS. Min.	1.26~2.23N	Accept
	5	Durability (Repeated Mate / Unmating)	No physical damage	No physical damage	Accept
	6	Connector Mating Force	100 N Max.	45.9~60.9N	Accept
	7	Connector Unmating Force	0.29NX POS. Min. (34Pos)	0.89~1.06N	Accept
	8	Termination Resistance (Low Level)	20mΩ Max. (Final)	2.8~6.3mΩ	Accept
	9	Examination of Product	Meets requirements of product drawing and Specification 114-5377	No physical damage	Accept

Group	Sequence	Test items	Requirements	Test data	Result
Group 10	1	Examination of Product	Meets requirements of product drawing and Specification 114-5377	No physical damage	Accept
	2	Termination Resistance (Low Level)	10mΩ Max. (Initial)	3.1~6.8mΩ	Accept
	3	Insulation Resistance	1000MΩ Min.	>99900 MΩ	Accept
	4	Dielectric withstanding Voltage	Neither creeping discharge nor flashover shall occur. Current leakage: 0.5 mA Max.	No breakdown Current leakage: 0.019~0.026mA	Accept
	5	Humidity-Temperature Cycling	Dielectric Strength; Insulation resistance; Termination resistance (Final)	Refer to sequence8 Refer to sequence7 Refer to sequence6	Accept
	6	Termination Resistance (Low Level)	20mΩ Max. (Initial)	2.6~6.7mΩ	Accept
	7	Insulation Resistance	100MΩ Min.	>99900 MΩ	Accept
	8	Dielectric withstanding Voltage	Neither creeping discharge nor flashover shall occur. Current leakage: 0.5 mA Max.	No breakdown Current leakage: 0.023~0.031mA	Accept

Group	Sequence	Test items	Requirements	Test data	Result
Group 11	1	Examination of Product	Meets requirements of product drawing and Specification 114-5377	No physical damage	Accept
	2	Termination Resistance (Low Level)	10mΩ Max. (Initial)	2.9~5.1mΩ	Accept
	3	Salt Spray	No corrosion influence performance Termination Resistance (Final)	Refer to sequence 4 Refer to sequence 5	Accept
	4	Examination of Product	Meets requirements of product drawing and Specification 114-5377	No corrosion impact on performance	Accept
	5	Termination Resistance (Low Level)	20mΩ Max. (Final)	1.7~9.3mΩ	Accept

Group	Sequence	Test items	Requirements	Test data	Result
Group 13	1	Examination of Product	Meets requirements of product drawing and Specification 114-5377	No physical damage	Accept
	2	Termination Resistance (Low Level)	10mΩ Max. (Initial)	2.5~5.3mΩ	Accept
	3	Industrial Gas (SO2)	No physical damage Termination Resistance (Final)	Refer to sequence 4 Refer to sequence 5	Accept
	4	Examination of Product	Meets requirements of product drawing and Specification 114-5377	No corrosion impact on performance	Accept
	5	Termination Resistance (Low Level)	20mΩ Max. (Final)	3.33~7.4mΩ	Accept