



MULTIPOINT IDC TERMINAL

1. INTRODUCTION

1.1 Purpose

This document provides the qualification summary of MULTIPOINT IDC TERMINAL.

1.2 Scope

This specification covers the electrical, mechanical, and environmental performance of MULTIPOINT IDC TERMINAL.

1.3 Conclusion

Based on the test results, all meet the requirements according to Product Specification 108-140330.

1.4 Product Description

Name	Remarks
MULTIPOINT IDC TERMINAL	

1.5 Test Samples

Samples were taken randomly from current production. The following samples were used

Product Part Number	Description	Test Group
2347805-2	MULTIPOINT IDC TERMINAL 2POSN	1,2,5,7,10,11
2347805-4	MULTIPOINT IDC TERMINAL 4POSN	1,5,7,10,11
2347805-5	MULTIPOINT IDC TERMINAL 5POSN	1,2,3,4,5,6,7,8,9,10,11

1.6 Test Wires

The following wires were used

Wire size	Test Group	Wire content
AWG24	1,2,3,5,6,7	UL20276 Type
AWG26	1,2,3,4,5,6,7,8,9	ETFE-0.2

1.7 Qualification Test Sequence and Test result

TEST OR EXAMINATION	TEST GROUP												
	1	2	3	4	5	6	7	8	9	10	11		
	TEST SEQUENCE (a)												
Examination of Product	1	1,6	1,6	1,11	1	1	1,3	1,10	1,3	1,3	1,3		
Micro section	2												
Termination Resistance (Low Level)		2,5	2,5	2,8				2,7					
Dielectric withstanding Voltage				4,9				4,8					
Insulation Resistance				3,10				3,9					
Temperature Rising					2								
Vibration			3										
Physical Shock			4										
Bending of the wire		3											
Wire pull out force						2							
Press in force							2						
Thermal Shock								5					
Humidity-Temperature Cycling								6					
Cold				5									
Mixed Flowing Gas				7									
Temperature Life		4		6									
Salt Spray									2				
Reflow Solderability										2			
Reflow resistance to soldering heat											2		
Judgement	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed	Passed		

Figure 2



NOTE

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

2. SUMMARY OF TEST RESULTS:

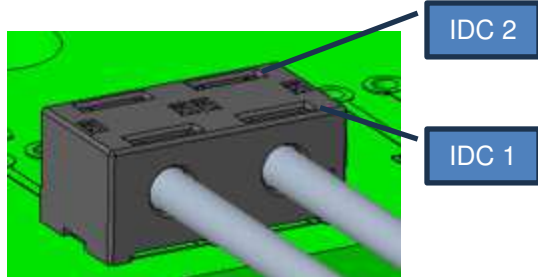
Test Group	Test Item	Set	N	Test Result				Requirement	Judge ment
1	Initial examination of products	2	2	No physical damage				Meets requirements of product drawing	Passed
	Micro Section		2	Good, Refer to Fig.4				Visual Inspection	Passed
2	Initial examination of products	3(2PO SN) 3(5PO SN)	6	No physical damage				Meets requirements of product drawing	Passed
	Contact Resistance		21		Max.	Min.	Ave.	Max.10mΩ	Passed
				AWG24	1.88	1.46	1.69		
				AWG26	2.58	1.85	2.07		
	Bending of the wire		6	No breakdown or flashover				No damage likely to impair function No discontinuities greater than $t > 1\mu s$	Passed
	Temperature Life		6	No physical damage				No damage likely to impair function	Passed
	Contact Resistance		21		Max.	Min.	Ave.	$\Delta 5m\Omega$	Passed
				AWG24	1.41	-0.49	-0.27		
				AWG26	3.81	0.00	1.57		
	Final examination of products		6	No physical damage				No damage likely to impair function	Passed
3	Initial examination of products	5	5	No physical damage				Meets requirements of product drawing	Passed
	Contact Resistance		25		Max.	Min.	Ave.	Max.10mΩ	Passed
				AWG24	2.77	2.17	2.43		
				AWG26	2.83	1.65	2.03		
	Vibration		5	No breakdown or flashover				No damage likely to impair function No discontinuities greater than $t > 1\mu s$	Passed
	Physical Shock		5	No breakdown or flashover				No damage likely to impair function No discontinuities greater than $t > 1\mu s$	Passed
	Contact Resistance		25		Max.	Min.	Ave.	$\Delta 5m\Omega$	Passed
				AWG24	3.80	-0.58	0.26		
				AWG26	0.78	-0.62	-0.04		
	Final examination of products		5	No physical damage				No damage likely to impair function	Passed
4	Initial examination of products	5	5	No physical damage				Meets requirements of product drawing	Passed
	Contact Resistance		25		Max.	Min.	Ave.	Max.10mΩ	Passed
					2.48	0.70	1.40		
	Insulation Resistance		20	Min. 50GΩ				Not less than 100MΩ	Passed

	Dielectric withstanding Voltage		20	No breakdown or flashover				No breakdown or flashover	Passed
	Cold		5	No damage likely to impair function				No damage likely to impair function	Passed
	Temperature Life		5	No damage likely to impair function				No damage likely to impair function	Passed
	Mixed Flowing Gas		5	No damage likely to impair function				No damage likely to impair function	Passed
	Contact Resistance		25	Max.	Min.	Ave.	Δ5mΩ	Passed	
				1.93	-1.39	-0.29			
	Dielectric withstanding Voltage		20	No breakdown or flashover				No breakdown or flashover	Passed
	Insulation Resistance		20	Min. 50G Ω				Not less than 100MΩ	
Final examination of products	5	No physical damage				No damage likely to impair function	Passed		
5	Initial examination of products	3(2PO SN) 3(4PO SN)	3	No physical damage				Meets requirements of product drawing	Passed
	Temperature Rising	3(5PO SN)	3	Refer to Fig.5				Refer to Fig.5	Passed
6	Initial examination of products	2	2	No physical damage				Meets requirements of product drawing	Passed
	Wire pull out force		10		Max.	Min.	Ave.	Reference	Passed
				AWG24	31.54	26.89	29.32		
	AWG26		23.71	19.25	21.51				
7	Initial examination of products	5(2PO SN) 5(4PO SN)	5	No physical damage				Meets requirements of product drawing	Passed
	Press in force	5(5PO SN)	5	Refer to Fig.6				Reference	Passed
8	Initial examination of products	5	5	No physical damage				Meets requirements of product drawing	Passed
	Contact Resistance		25	Max.	Min.	Ave.	Max.10mΩ	Passed	
				3.41	2.40	2.76			
	Insulation Resistance		20	Min. 58G Ω				Not less than 100MΩ	Passed
	Dielectric withstanding Voltage		20	No breakdown or flashover				No breakdown or flashover	Passed
	Thermal Shock		5	No damage likely to impair function				No damage likely to impair function	Passed
	Humidity-Temperature Cycling		5	No damage likely to impair function				No damage likely to impair function	Passed
	Contact Resistance		25	Max.	Min.	Ave.	Δ5mΩ	Passed	
				0.52	-0.34	0.08			

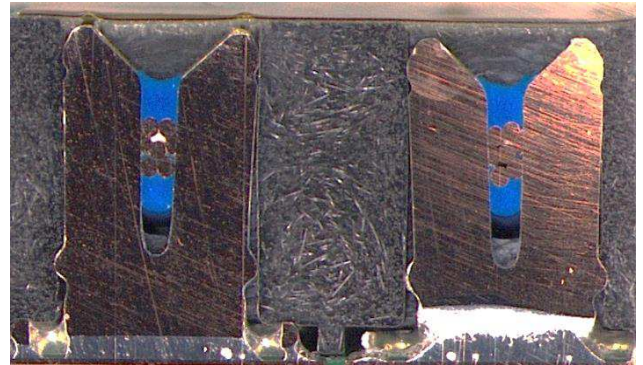
	Dielectric withstanding Voltage		20	No breakdown or flashover			No breakdown or flashover	Passed
	Insulation Resistance		20	Min. 119GΩ			Not less than 100MΩ	Passed
	Final examination of products		5	No physical damage			No damage likely to impair function	Passed
9	Initial examination of products	5	5	No physical damage			Meets requirements of product drawing	Passed
	Contact Resistance		25	Max. 2.95	Min. 2.48	Ave. 2.76	Max.10mΩ	Passed
	Salt Spray			No damage likely to impair function			No damage likely to impair function	Passed
	Contact Resistance		25	Max. 0.96	Min. -0.14	Ave. 0.27	Δ5mΩ	Passed
	Visual and dimensional examination			No physical damage			No damage likely to impair function	Passed
10	Initial examination of products	5(2PO SN)	5	No physical damage			Meets requirements of product drawing	Passed
	Reflow Solderability	5(4PO SN)	5	No damage likely to impair function			Wet solder coverage 95% Min	Passed
	Final examination of products	5(5PO SN)	5	No physical damage			No damage likely to impair function	Passed
11	Initial examination of products	5(2PO SN)	5	No physical damage			Meets requirements of product drawing	Passed
	Reflow resistance to soldering heat	5(4PO SN)	5	No damage likely to impair function			No damage likely to impair function	Passed
	Final examination of products	5(5PO SN)	5	No physical damage			No damage likely to impair function	Passed

Figure 3

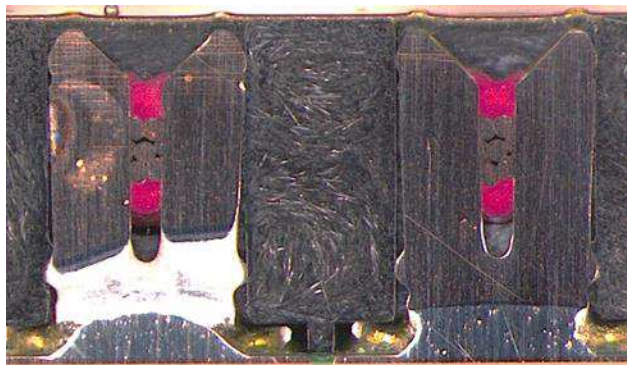
•Micro Section :



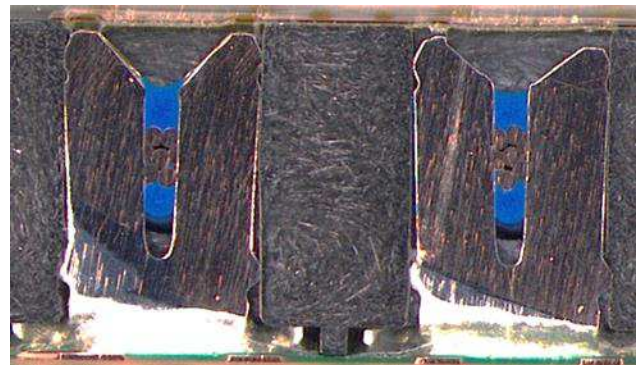
IDC 1(AWG24)



IDC 1(AWG26)



IDC 2(AWG24)



IDC 2(AWG26)

Figure 4

•Current rating [A] :Temperature rising: 30°C MAX

POSN	2	2	4	4	5	5
AWG	24	26	24	26	24	26
Temperature rise at rated current [°C] (Applied current: A)	20.0 (4.2)	19.5 (3.8)	20.1 (3.6)	19.5 (3.2)	19.5 (3.5)	19.3 (3.2)
Judgement	Passed					

Figure 5-1

•Current rating [A] : Ambient temperature: 25°C Temperature rising: 100°C

POSN	2	2	4	4	5	5
AWG	24	26	24	26	24	26
Temperature rise at rated current [°C] (Applied current: A)	63.5 (7.8)	64.7 (7)	64.3 (6.7)	63.8 (6.1)	64.0 (6.6)	64.1 (5.9)
Judgement	Passed					

Figure 5-2

•Press in force :

POSN	AWG	N	Max [N]	Min [N]
2	24	5	208.6	194.8
2	26	5	164.2	156.6
4	24	5	411.9	403.6
4	26	5	330.1	326.4
5	24	5	516.7	505.6
5	26	5	416.5	405.7

Figure 6