

**.040II/.070II Hybrid I/O Connector MK-II for Wire-To-Board Termination****1. INTRODUCTION**

## 1.1. Purpose

Testing was performed on the product extension of .040II/.070II Hybrid I/O Connector MK-II for Wire-to-Board Termination to determine If It meets the requirements of Product Specification, 108-5342-3.

## 1.2. Scope

This report covers partial mechanical performance requirements of the .040II/.070II Hybrid I/O Connector MK-II for Wire-to-Board Termination.

## 1.3. Conclusion

The .040II/.070II Hybrid I/O Connector MK-II for Wire-to-Board Termination meets the performance requirements of Product Specification, 108-5342-3.

## 1.4. Product Description

This connector has been designed for use of automotive wire-to-board connector.

## 1.5. Test Samples

Samples were taken randomly from current production per Figure 1.

Part Number	Description
175265-1	.040II receptacle contact (tin)
175269-1	.070II receptacle contact (tin)
1438794-1	.040II/.070II Hybrid I/O connector 10 position plug assembly
638207-6	.040II/.070II Hybrid I/O connector 10 position plug assembly
917989-6	.040II/.070II Hybrid I/O connector 22 position plug assembly
2-638211-6	.040II/.070II Hybrid I/O connector 32 position cap assembly
9-638211-6	.040II/.070II Hybrid I/O connector 32 position cap assembly
9-776629-6	.040II/.070II Hybrid I/O connector 32 position cap assembly
9-776631-2	.040II/.070II Hybrid I/O connector 32 position cap assembly
9-776633-8	.040II/.070II Hybrid I/O connector 32 position cap assembly
9-776635-1	.040II/.070II Hybrid I/O connector 32 position cap assembly

Figure 1

**2. TEST CONTENTS**

Item Number	Test Item	Requirement	Judgement
2.1	Confirmation of Product	No detrimental cracks, flows or deformations.	Acceptable
2.13	Connector Mating Force	10 position: 69 N maximum. 12 position: 69 N maximum. 16 position: 69 N maximum. 22 position: 88.3 N maximum. 26 position: 98.1 N maximum.	Acceptable
2.14	Connector Unmating Force	10 position: 69 N maximum. 12 position: 69 N maximum. 16 position: 69 N maximum. 22 position: 88.3 N maximum. 26 position: 98.1 N maximum.	Acceptable
2.14	Housing Locking Strength	98 N minimum.	Acceptable
2.22	Handling Ergonomics	No abnormalities allowed in manual mating/unmating handling.	Acceptable
2.30	Self-Tapping Hole Evaluation	Screw properly, no crack, use 4kgf*cm with M3 X 6 screw.	Acceptable

Figure 2

**3. TEST SEQUENCE**

Test Item	Test Group		
	Test Sequence		
Confirmation of Product	1	1	1
Connector Mating Force	2		
Connector Unmating Force	3		
Housing Locking Strength	3		
Handling Ergonomics		2	
Self-Tapping Hole Evaluation			2

Figure 3

**4. TEST RESULT**

Test Group	Test Item	Unit	N	Test Result	Requirement	Judgement	
1	Confirmation of Product		16	Acceptable	No detrimental cracks, flows or deformations	Acceptable	
	Connector Mating Force	10 position	N	30	40.82 max	69 max	Acceptable
		22 position	N	30	80.23 max	88.3 max	Acceptable
	Connector Unmating Force	10 position	N	15	29.6 max	69 max	Acceptable
		22 position	N	15	81.56 max	88.3 max	Acceptable
	Housing Locking Strength	10 position	N	15	306.3 min	98 min	Acceptable
22 position		N	15	230.7 min	98 min	Acceptable	
2	Handling Ergonomics		16	Acceptable	No abnormalities allowed in manual mating / unmating handling.	Acceptable	
3	Self-Tapping Hole Evaluation		16	Acceptable	Screw properly, no crack, use 4kgf*cm with M3 X 6 screw.	Acceptable	

Figure 4