

 ENGINEERING SAMPLE EVALUATION REPORT									
PART NAME: TERMINAL WIRE SNAP ON FEMALE		PART NO: 7S4T-14474-AB 7S4T-14474-BB							
SUBMITTED BY: G. Steinbach		CURRENT MANUFACTURING SITE: TE-Belgium	CHECK APPLICABLE: <table><tr><td>☐</td><td>☒</td><td>☐</td></tr><tr><td>☐</td><td>☒</td><td>☐</td></tr></table>	☐	☒	☐	☐	☒	☐
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FUTURE MANUFACTURING SITE: TE-Belgium		TOOL MOVE: PROCESS CHANGE: MATERIAL/MATERIAL SUPPLIER CHANGE: CAPACITY TOOL:							
SUPPLIER: TE Connectivity		DATE SUBMITTED: 19April2016	MADE TO DRAWING DATED: 3F2T-14474-RA / 20150721						
CHANGE DETAILS: Change from silver plating (3-5µm) over base metal in mating area, to silver plating (3-5µm) over nickel underplate in the mating area. Change from silver plating (0.5µm min.) over base metal in crimp area, to tin plating (2-4µm) over nickel underplate in the crimp area. No USCAR-21 required, since 3F2T-14474-RA/SA already use this design wire barrel & plating and pass USCAR-21. <i>Soy. M, N, O, P data is from Greensboro, NC die.</i>									
APPROVED: REJECTED:	PRODUCT ENGINEERING SIGNATURE*: <i>[Signature]</i>		DATE: <i>5/10/16</i>						
IDENTIFY WITH ☒ REMARKS AFFECTING PRODUCT ENGINEERING CRITICAL REQUIREMENTS									
*By signing this document, you state that you have verified the physical part/s with the drawing/s and agree with key dimensional data, notes and appearance.									

		DESIGN VERIFICATION PLAN AND REPORT				DVPR Number: 21243	
COMPONENT ASSEMBLY Terminal, GET, Female, Silver		PIN 2-1393366-2 2-1393367-2		UPG Number		Plan Date:	
Model Year 2014+		Applications ODD Box		TE Connectivity		Manager Approval <i>[Signature]</i> 5/10/16	
Report Date 19-Apr-2016		Source TE Connectivity		Reporting Engineer G. Steinbach		Dept. Number: 21243	

TEST PLAN										TEST REPORT									
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirement	Test Result	Test Stage	Sample Qty	Sample Type	Timing	Complete	Qty	Type	Phase	Actual Results	NOTES				
Start of USCAR-2, Revision 5 Dated November 2007 Start of Test flow 5.9.3 – Terminal Mechanical Tests																			
A	Terminal to Terminal Engage/Disengage Force (sequence ID A of USCAR2)					PV	10	E	31Mrz16	14Apr16	10	E	PV						
1 a	USCAR-2 5.1.8.3 Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	PV	10	E	31Mrz16	14Apr16	10	E	PV	Test passed	10 Male blades and 10 female terminals				

TEST PLAN				TEST REPORT										NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Stage	Sample		Timing		Samples Tested			Actual Results		
						Qty	Type	Start	Complete	Qty	Type	Phase			
Start of Test Flow 5.9.6 -- Connector System Electrical Test Flow															
M	Vibration/Mechanical Shock (sequence ID M of USCAR2)				PV	10	D	24Mrz14	31Mrz14	10	D	PV	PASSED Test 20130326ACL		
M a	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	24Mrz14	31Mrz14	10	D	PV	PASSED Test 20130326ACL	10pcs-pin 1411169-3 10pcs-pin 1456397-3 (Male term pin 1438299-8 or equivalent)
M b	USCAR-2 5.1.7.4	Connector Cycling / Terminal Cycling	USCAR-2 5.1.7.5	None	TE	PV	10	D	24Mrz14	31Mrz14	10	D	PV	Conditioning	
M c	USCAR-2 5.3.1.3	Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	24Mrz14	31Mrz14	10	D	PV	Current Plating Min = 2.46mcs Max = 3.57mcs New Plating Min = 2.09mcs Max = 2.75mcs	Continuity monitoring, Dry Circuit, Voltage Drop, and terminal visual
M d	USCAR-2 5.4.6.3	Vibration/Mechanical Shock (Components coupled to engine - V2)	USCAR-2 5.4.6.4	No Failures	TE	PV	10	D	24Mrz14	31Mrz14	10	D	PV	No discontinuities exhibited	
M e	USCAR-2 5.3.1.3	Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	24Mrz14	31Mrz14	10	D	PV	Current Plating Min = 2.47mcs Max = 5.97mcs New Plating Min = 2.37mcs Max = 3.68mcs	
M f	USCAR-2 5.3.2.3	Voltage Drop	USCAR-2 5.3.2.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	24Mrz14	31Mrz14	10	D	PV	Current Plating Min = 3.00mcs Max = 7.53mcs New Plating Min = 2.68mcs Max = 4.23mcs	
M g	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	24Mrz14	31Mrz14	10	D	PV	PASSED Test 20130326ACL	

TEST PLAN				TEST REPORT										NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirement (units)	Test Region stability	Test Stage	Sample		Timing		Samples Tested			Actual Results	
							Qty	Type	Start	Complete	Qty	Type	Phase		
N	Thermal Shock (sequence ID N of USCAR2)														
N a	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	06Feb14	17Feb14	10	D	PV	PASSED Test 20130326ACL	10pcs-p/n 1411169-3 10pcs-p/n 1456397-3 (Male term p/n 1438299-8 or equivalent)
N b	USCAR-2 5.1.7.4	Connector Cycling / Terminal Cycling	USCAR-2 5.1.7.5	None	TE	PV	10	D	06Feb14	17Feb14	10	D	PV	Conditioning	
N c	USCAR-2 5.3.1.3	Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	06Feb14	17Feb14	10	D	PV	Current Plating Min = 2.45mcs Max = 4.01mcs New Plating Min = 2.08mcs Max = 2.60mcs	
N d	USCAR-2 5.6.1.3	Thermal Shock Temp Class 3 (125°C)	USCAR-2 5.6.1.4	No Failures	TE	PV	10	D	06Feb14	17Feb14	10	D	PV	No discontinuities exhibited	Continuity Monitoring, Dry Circuit, Voltage Drop, and terminal visual
N e	USCAR-2 5.3.1.3	Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	06Feb14	17Feb14	10	D	PV	Current Plating Min = 2.33mcs Max = 6.35mcs New Plating Min = 2.18mcs Max = 3.25mcs	
N f	USCAR-2 5.3.2.3	Voltage Drop	USCAR-2 5.3.2.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	06Feb14	17Feb14	10	D	PV	Current Plating Min = 2.44mcs Max = 7.88mcs New Plating Min = 2.49mcs Max = 3.79mcs	
N g	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	06Feb14	17Feb14	10	D	PV	PASSED Test 20130326ACL	

TEST PLAN				TEST REPORT										NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Stage	Sample		Timing		Samples Tested			Actual Results		
						Qty	Type	Start	Complete	Qty	Type	Phase			
O		Temp/Humidity (sequence ID O of USCAR2)				PV	10	D	13Feb14	05Mrz14	10	D	PV	PASSED Test 20130326ACL	10pcs-p/n 1411169-3 10pcs -p/n 1456397-3 (Male term p/n 1438298-8 or equivalent)
O a	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	13Feb14	05Mrz14	10	D	PV	PASSED Test 20130326ACL	
O b	USCAR-2 5.1.7.4	Connector Cycling / Terminal Cycling	USCAR-2 5.1.7.5	None	TE	PV	10	D	13Feb14	05Mrz14	10	D	PV	Conditioning	
O c	USCAR-2 5.3.1.3	Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	13Feb14	05Mrz14	10	D	PV	Current Plating Min = 2.51m ς Max = 4.17m ς New Plating Min = 2.13m ς Max = 2.72m ς	
O d	USCAR-2 5.6.2.3	Temp/Humidity Temp Class 3 (125°C)	USCAR-2 5.6.2.4	No Failures	TE	PV	10	D	13Feb14	05Mrz14	10	D	PV	Conditioning	Dry Circuit, Voltage Drop, and Terminal Visual. IR not to be measured.
O e	USCAR-2 5.3.1.3	Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	13Feb14	05Mrz14	10	D	PV	Current Plating Min = 2.15m ς Max = 3.27m ς New Plating Min = 2.10m ς Max = 2.63m ς	
O f	USCAR-2 5.3.2.3	Voltage Drop	USCAR-2 5.3.2.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	13Feb14	05Mrz14	10	D	PV	Current Plating Min = 2.35m ς Max = 3.79m ς New Plating Min = 2.42m ς Max = 2.99m ς	
O g	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	13Feb14	05Mrz14	10	D	PV	PASSED Test 20130326ACL	

TEST PLAN				TEST REPORT										NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Stage	Sample		Timing		Samples Tested			Actual Results		
						Qty	Type	Start	Complete	Qty	Type	Phase			
P		High Temp Exposure (sequence ID P of USCAR2)													
P a	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	24Jan14	05Mrz14	10	D	PV	PASSED Test 20130326ACL	10pcs-pin 1411169-3 10pcs-pin 1456397-3 (Male term pin 1438299-8 or equivalent)
P b	USCAR-2 5.1.7.4	Connector Cycling / Terminal Cycling	USCAR-2 5.1.7.5	None	TE	PV	10	D	24Jan14	05Mrz14	10	D	PV	Conditioning	
P c	USCAR-2 5.3.1.3	Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	24Jan14	05Mrz14	10	D	PV	Current Plating Min = 2.40mcs Max = 3.91mcs New Plating Min = 1.98mcs Max = 2.59mcs	
P d	USCAR-2 5.6.3.3	High Temperature Exposure	USCAR-2 5.6.3.4	No Failures	TE	PV	10	D	24Jan14	05Mrz14	10	D	PV	Conditioning	Dry Circuit, Voltage Drop, and Terminal Visual.
P e	USCAR-2 5.3.1.3	Temp Class 3 (125°C) Dry Circuit Resistance	USCAR-2 5.3.1.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	24Jan14	05Mrz14	10	D	PV	Current Plating Min = 2.11mcs Max = 2.68mcs New Plating Min = 1.99mcs Max = 2.54mcs	
P f	USCAR-2 5.3.2.3	Voltage Drop	USCAR-2 5.3.2.4 $R_{TOTAL} \leq 10m\Omega$	No Failures	TE	PV	10	D	24Jan14	05Mrz14	10	D	PV	Current Plating Min = 4.13mcs Max = 4.84mcs New Plating Min = 3.53mcs Max = 4.76mcs	
P g	USCAR-2 5.1.8.3	Visual Inspection	USCAR-2 5.1.8.4 Inspect for defects	No Defects	TE	PV	10	D	24Jan14	05Mrz14	10	D	PV	PASSED Test 20130326ACL	
End of Test Flow 5.9.6 -- Connector System Electrical Test Flow															