



Table of Contents
PPAP Package for:
Tyco Electronics Mexico S de RL de

(TE Connectivity Part Number: 1456987-3)

17/May/2019

Section A	<u>Nondisclosure Agreement</u>
Section # 1	<u>Design Records</u>
Section # 2	<u>Engineering Change Documents</u>
Section # 3	<u>Customer Engineering Approval</u>
Section # 4	<u>Design FMEA</u>
Section # 5	<u>Process Flow Diagrams</u>
Section # 6	<u>Process FMEA</u>
Section # 7	<u>Control Plan</u>
Section # 8	<u>Measurement Systems Analysis Studies</u>
Section # 9	<u>Dimensional Results</u>
Section # 10	<u>Material, Performance Test Results</u>
Section # 11	<u>Initial Process Study</u>
Section # 12	<u>Qualified Laboratory Documentation</u>
Section # 13	<u>Appearance Approval Report</u>
Section # 14	<u>Sample Product</u>
Section # 15	<u>Master Sample</u>
Section # 16	<u>Checking Aids</u>
Section # 17	<u>Records Of Compliance with Customer-Specific Requirements</u>
Section # 18	<u>Part Submission Warrant</u>
Section # 18a	<u>Bulk Material Requirements</u>



Nondisclosure Agreement

If a nondisclosure agreement has been reached with your company, it will be included on the following page(s). Please review the terms of this agreement to ensure that further actions associated with information contained within this PPAP package do not violate these terms.

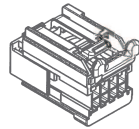
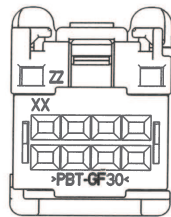
If a nondisclosure agreement HAS NOT been reached, certain documents deemed confidential by TE Connectivity will not be included in this PPAP package. These documents include but are not limited to the Design FMEA, the Process Flow Diagram, the Process FMEA and the Control Plan. These documents can be reviewed by you company but cannot be retained.



Section 1

Design Records

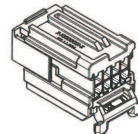
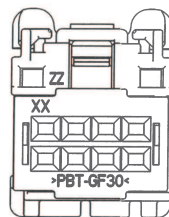
KEYING OPTION
A



SCALE 2:1

(SHOWN WITH CPA)

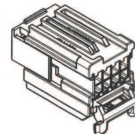
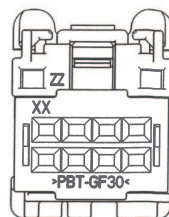
KEYING OPTION
C



SCALE 2:1

(SHOWN WITH CPA)

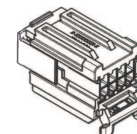
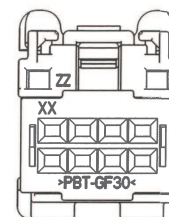
KEYING OPTION
D



SCALE 2:1

(SHOWN WITH CPA)

KEYING OPTION
E



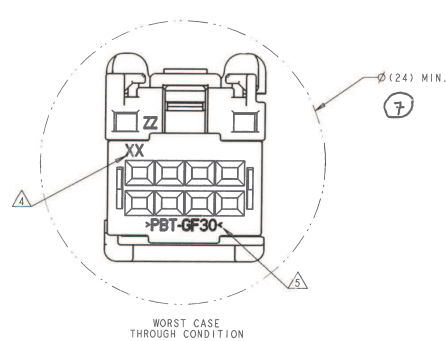
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(SHOWN WITH CPA)

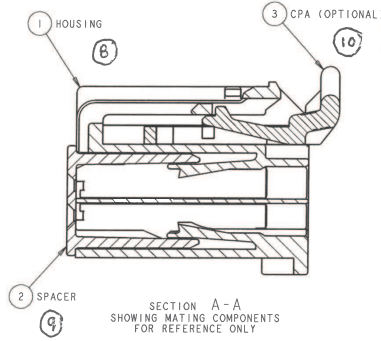
REVISIONS

REV	DATE	DESCRIPTION	BY	APPV
D1	24/02/2012	REVISED PER ECO-12-003443	DO	RL
D2	24/02/2014	REVISED PER ECO-13-019739	DO	RL
D3	09/02/2014	REVISED PER ECO-14-014459	DO	RL

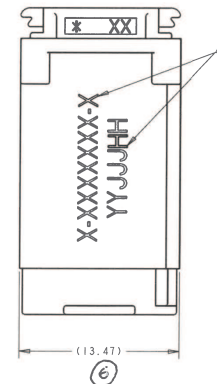
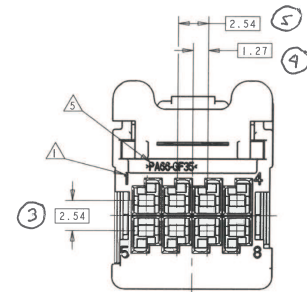
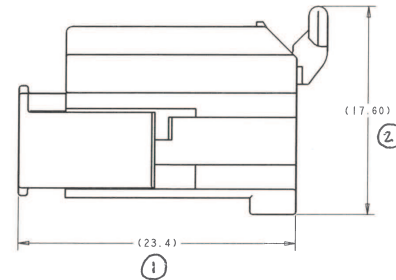
1. CIRCUIT IDENTIFICATION NUMBERS LOCATED AS SHOWN.
2. SPACER AND CPA ARE SHIPPED IN PRE-ASSEMBLED POSITION.
3. PART NUMBER AND DATE CODE.
4. CAVITY ID.
5. MATERIAL SPECIFICATION.
6. PACKING: CONNECTOR ASSEMBLIES BULK PACKED IN CARDBOARD BOX



WORST CASE THROUGH CONDITION



SECTION A-A
SHOWING MATING COMPONENTS
FOR REFERENCE ONLY



PARTS LIST				
ITEM NO	DESCRIPTION	MATERIAL	COLOR	QTY REQ'D PER ASSY
1	CPA	>PBT-GF20<	RED	3
2	SPACER	>PBT-GF30<	RED	2
3	HOUSING; KEY E	>PA66-GF35<	BLACK	1
4	HOUSING; KEY D	>PA66-GF35<	BLACK	1
5	HOUSING; KEY C	>PA66-GF35<	BLACK	1
6	HOUSING; KEY A	>PA66-GF35<	BLACK	1
REVISION OF EACH ASSY NO (WHEN BLANK, USE DWG REVISION)				
WEIGHT OF EACH ASSY NO (g)				

Digitally signed
by Sanyo
Catalanada
Date: 2019.01.17
01:01:44 +0700

THIS DRAWING IS A CONTROLLED DOCUMENT.		DATE: 2019.01.17	
DRAWN BY: S. VESTAL		DATE: 2019.01.17	
CHECKED BY: S. STRAUSS		DATE: 2019.01.17	
APPROVED BY: S. STRAUSS		DATE: 2019.01.17	
PRODUCT SPEC		APPLICATION SPEC	
MATERIAL		WEIGHT	
SEE TABLE		CUSTOMER DRAWING	

TE Connectivity

2X4 POSITION
GET, FEMALE CONNECTOR,
ASSEMBLY

SIZE: 00779

REVISIONS



Section 2

Engineering Change Documents



Product Change Notification

Current Date: 19-Jul-2018

TE Connectivity

Product Change Notification: P-18-016097

PCN Date: 17-JUL-18

TE would like to inform you of the following change(s) to the listed TE Connectivity Product. In case of any further questions about this change(s), please contact your TE Connectivity Sales Engineer. Affected part, drawing and/or specification numbers are listed on the attached sheet(s).

General Product Description:

One Roof - Connectors stage

Description of Changes

Dear Customer, TE Connectivity Automotive Business Unit is in the fourth phase of a process Consolidation Project in the Empalme Campus, the objective is to consolidate Plant 1 (Molding & Mechatronics) and Plant 4 (Assembly) into a single building, in the same industrial park. The fourth phase involves migration of TE4 Connector Assembly processes to TE2 One Roof Building. As part of our ongoing activities to provide our customers the highest quality products, this will drive to a Vertical Integration, Safety Systems improvements, Warehouse optimization, and excellent customer experience. The building is being prepare to start moving in September 2018 through December 2018.

Other attachments:

[TE Empalme Consolidation](#)

Reason for Changes:

Dear Customer, we hereby inform you about a transfer of tools and/or processes. The transfer follows a strict procedure, which fully maintains quality, ability to supply and form-fit-function of the concerned products. The new manufacturing location operates under a certified quality management system in accordance with standard automotive requirements. A TE-internal release test based on the relevant part specifications will be executed before delivery. Upon request, a PPAP Level 2 will be available if it concerns a transfer of a tool which produces a finished TE-product. A PPAP Level 1 will be available if it concerns a component of a TE-product, where the production location of the finished TE-product remains unchanged. If you require such a PPAP, please notify the responsible TE Sales Contact within 14 calendar days after receipt of this PCN

Estimated Dates:

Last Order Date (Obsolete Parts Only):	First Date To Ship (Changed Parts Only):
	02-NOV-2018
Last Ship Date (Obsolete Parts Only):	Last Date for Mixed Shipments: (Changed Parts Only):
	No Mixed Shipments

Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
1-1326132-0	NO					
1-1326327-1	NO					
1-1326328-2	NO					
1-1326727-9	NO					
1-1411001-0	NO					
1-1437855-9	NO		"108525A"			
1-1438454-1	NO					
1-1438726-6	NO					
1-1438726-7	NO					
1-1456315-1	NO					
1-1456315-2	NO					
1-1456315-5	NO					
1-1456426-1	NO					
1-1456426-2	NO					
1-1456426-5	NO					
1-1456426-6	NO					
1-1587041-4	NO					
1-1924067-2	NO					
1-1924067-3	NO					
1-1924067-4	NO					
1-1924067-5	NO					
1-1924067-6	NO					
1-1924067-9	NO					
1-1924337-3	NO					
1-1924939-6	NO					
1-1924940-1	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
1-1924940-3	NO					
1-1924940-7	NO					
1-1924940-8	NO					
1-1924941-0	NO					
1-1924941-2	NO					
1-1924941-3	NO					
1-1924941-4	NO					
1-1924941-5	NO					
1-1924941-8	NO					
1-1924943-7	NO					
1-1924943-8	NO					
1-1924944-1	NO					
1-1924944-5	NO					
1-1924944-7	NO					
1-2035363-0	NO					
1-2098067-3	NO					
1-2098067-4	NO					
1-2098067-5	NO					
1-2098067-6	NO					
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1-2272975-1	NO					
1-2296697-1	NO					
1-2296697-2	NO					
1-2300499-1	NO					
1-2300499-2	NO					
1-2309436-1	NO					
1-638514-0	NO					
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1-638514-5	NO					
1-638514-6	NO					
1-776905-1	NO					
1-776905-2	NO					
1-776905-3	NO					
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1326110-1	NO					
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1326122-3	NO					
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1326136-2	NO					
1326140-1	NO					
1326140-3	NO					
1326226-1	NO					
1326226-2	NO					
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1326328-5	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
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1326339-7	NO					
1326339-8	NO					
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1326353-3	NO					
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1326362-3	NO					
1326362-7	NO					
1326509-1	NO					
1326729-1	NO					
1326942-3	NO					
1326964-1	NO					
1411001-1	NO		"V23542-G1508-A115"			
1411001-6	NO					
1411001-7	NO					
1411001-8	NO					
1411001-9	NO					
1411169-1	NO					
1411169-3	NO					
1411169-4	NO					
1411367-1	NO					
1432654-1	NO		"VATS-0022"			
1437882-8	NO		"109640A", "X109640A"			
1438031-1	NO		"V23542-G1516-A101"			
1438082-1	NO					
1438083-1	NO					
1438122-1	NO					
1438156-1	NO					
1438156-3	NO					
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1438426-1	NO					
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1438454-1	NO					
1438521-1	NO					
1438545-1	NO					
1438726-2	NO					
1438759-1	NO					
1438761-6	NO					
1438766-1	NO					
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1438794-2	NO					
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1438841-1	NO					
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1438848-1	NO					
1438975-2	NO					
1443966-1	NO					
1452187-1	NO					
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1456016-2	NO		"130025602404"			
1456016-3	NO		"130025602405"			
1456016-4	NO		"130025602406"			
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1456315-2	NO					
1456315-3	NO					
1456315-5	NO					
1456315-6	NO					
1456315-9	NO					
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1456471-2	NO					
1456471-4	NO					
1456471-5	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
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1456602-2	NO					
1456867-3	NO					
1456950-2	NO					
1456987-1	NO					
1456987-3	NO					
1456987-4	NO					
1456987-5	NO					
1456987-7	NO					
1456989-1	NO					
1456989-2	NO					
1456989-3	NO					
1456989-4	NO					
1488107-1	NO					
1488573-1	NO					
1488750-1	NO					
1488846-4	NO					
1488846-6	NO					
1488903-1	NO					
1557052-1	NO					
1557636-1	NO					
1557667-1	NO					
1587041-1	NO					
1587255-1	NO					
1587268-4	NO					
1587270-5	NO					
1587392-7	NO					
1587392-8	NO					
1642407-5	NO					
1670118-1	NO					
1670120-1	NO					
1670120-2	NO					
1718981-1	NO					
1732120-1	NO					
1732120-2	NO					
1732510-3	NO					
174971-2	NO					
174973-2	NO					
174975-2	NO					
174979-2	NO					
179678-6	NO					
179679-6	NO					
179680-5	NO					
179681-6	NO					
184000-1	NO					
184002-1	NO					
184004-1	NO					
184006-1	NO					
184006-2	NO					
184008-1	NO					
184010-1	NO					
184012-1	NO					
184014-1	NO					
184016-1	NO					
184020-1	NO					
184022-1	NO					
184032-1	NO					
184034-1	NO					
184042-1	NO					
184042-2	NO					
184046-1	NO		"EM3604-000", "AMP-0-0184046-1"			
184050-2	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
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184116-1	NO					
184116-2	NO					
184124-1	NO					
184207-1	NO					
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184212-2	NO					
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184216-1	NO					
184220-1	NO					
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184254-1	NO					
184270-1	NO					
184292-1	NO					
184305-1	NO					
184311-1	NO					
184315-1	NO					
184322-1	NO					
184328-1	NO					
184334-1	NO					
184340-1	NO					
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184344-1	NO					
184346-1	NO					
184346-2	NO					
184349-1	NO					
184355-1	NO					
184355-2	NO					
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184375-1	NO					
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184392-2	NO					
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184393-2	NO					
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184400-1	NO					
184401-1	NO					
184406-1	NO					
184408-1	NO					
184408-2	NO					
184409-1	NO					
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184452-1	NO					
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1924292-6	NO					
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1924337-2	NO					
1924337-3	NO					
1924346-1	NO					
1924346-3	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
1924484-1	NO					
1924639-1	NO					
1924639-2	NO					
1924779-1	NO					
1924900-1	NO					
1924900-4	NO					
1924939-1	NO					
1924940-1	NO					
1924940-5	NO					
1924940-6	NO					
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1924941-2	NO					
1924941-4	NO					
1924941-5	NO					
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1924941-7	NO					
1924941-8	NO					
1924941-9	NO					
1924942-1	NO					
1924942-2	NO					
1924942-3	NO					
1924942-6	NO					
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1924944-1	NO					
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1924944-4	NO					
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2-1326327-8	NO					
2-1438083-1	NO					
2-1438454-1	NO					
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2035024-2	NO					
2035037-1	NO					
2035037-2	NO					
2035239-1	NO					
2035360-1	NO					
2035360-3	NO					
2035360-5	NO					
2035363-1	NO					
2035363-2	NO					
2035363-3	NO					
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2035363-5	NO					
2035363-6	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
2035363-7	NO					
2098067-1	NO					
2098067-2	NO					
2098067-3	NO					
2098067-4	NO					
2098067-5	NO					
2098067-6	NO					
2098067-7	NO					
2098198-5	NO					
2098256-7	NO					
2098269-1	NO					
2098269-4	NO					
2098401-2	NO					
2098407-1	NO					
2098489-1	NO					
2098491-1	NO					
2098541-1	NO					
2098541-5	NO					
2098541-6	NO					
2098557-1	NO					
2098557-4	NO					
2098557-7	NO					
2098559-5	NO					
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2098559-8	NO					
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2098627-2	NO					
2098633-1	NO					
2098641-1	NO					
2098641-2	NO					
2098641-5	NO					
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2098966-6	NO					
2098966-7	NO					
2138045-1	NO					
2138046-3	NO					
2138046-6	NO					
2138047-3	NO					
2138144-1	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
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2138250-1	NO					
2138251-1	NO					
2138252-1	NO					
2138260-1	NO					
2138274-1	NO					
2138281-2	NO					
2138314-1	NO					
2138314-5	NO					
2138314-7	NO					
2138338-5	NO					
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2138731-1	NO					
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2272431-3	NO					
2272926-2	NO					
2272926-3	NO					
2272975-1	NO					
2272975-5	NO					
2272975-7	NO					
2272975-9	NO					
2286018-1	NO					
2287729-2	NO					
2288276-1	NO					
2288276-2	NO					
2289050-1	NO					
2289050-2	NO					
2291594-1	NO					
2296701-1	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
2296701-6	NO					
2297354-1	NO					
2306639-1	NO					
2306984-1	NO					
2309644-1	NO					
2309644-3	NO					
2309644-4	NO					
2311107-1	NO					
2320479-1	NO					
2324011-1	NO					
3-1326328-4	NO					
3-1326339-5	NO					
3-1326339-6	NO					
3-1326339-7	NO					
3-1326727-2	NO					
3-1326727-3	NO					
3-1326729-3	NO					
3-1437287-4	NO		"0941972R01"			
3-1437854-1	NO		"103625"			
3-1438640-2	NO					
3-1438640-5	NO					
3-1438640-7	NO					
3-1438640-9	NO					
3-1438841-8	NO					
3-1924939-1	NO					
3-1924939-4	NO					
3-1924939-5	NO					
3-2098269-1	NO					
3-2098269-2	NO					
3-2098269-3	NO					
3-2098269-6	NO					
3-2098269-7	NO					
3-2098269-8	NO					
3-2098922-3	NO					
3-2203654-2	NO					
3-2203654-4	NO					
3-2203654-5	NO					
3-638517-0	NO					
3-776729-0	NO					
4-1326339-1	NO					
4-1326339-5	NO					
4-1326339-7	NO					
4-1437287-0	NO		"0944252L01"			
4-1437287-5	NO		"130025602401"			
4-1437287-6	NO		"130025602402"			
4-1437287-7	NO		"130025603205"			
4-1437290-5	NO		"4001753201"			
4-1437290-6	NO		"4001753202"			
4-1437290-7	NO		"4001753203"			
4-1438083-3	NO					
4-1438083-4	NO					
4-1438640-5	NO					
4-1454396-1	NO		"108104D"			
4-1454396-7	NO		"X109732A"			
4-1456426-1	NO					
4-1456426-2	NO					
4-1488991-1	NO					
4-1488991-2	NO					
4-1587041-6	NO					
4-1924067-1	NO					
4-1924067-2	NO					
4-1924292-1	NO					
4-1924939-2	NO					
4-1924939-3	NO					
4-1924939-5	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
4-1924939-7	NO					
4-1924939-8	NO					
4-1924939-9	NO					
4-2098269-2	NO					
4-2098269-5	NO					
4-2098269-6	NO					
4-2098541-1	NO					
4-2098541-2	NO					
4-2098557-1	NO					
4-2098641-1	NO					
4-2098641-2	NO					
4-2138685-1	NO					
4-2203542-7	NO					
4-2203542-8	NO					
4-2203654-2	NO					
4-2203654-6	NO					
4-2203654-7	NO					
4-2203654-8	NO					
4-2203654-9	NO					
4-2272003-1	NO					
4-2272003-2	NO					
4-2272003-4	NO					
4-2272003-5	NO					
4-2272004-1	NO					
4-2272004-2	NO					
4-2272005-1	NO					
4-2272005-2	NO					
4-2272173-1	NO					
4-2272173-2	NO					
4-2272173-3	NO					
4-776728-0	NO					
4-776728-1	NO					
4-776728-2	NO					
4-776728-3	NO					
414946-1	NO					
5-1326339-0	NO					
5-1419166-6	NO					
5-1419167-6	NO					
5-1419168-8	NO		"V23542-G1516-D101"			
5-1437287-0	NO		"1300279"			
5-1437854-0	NO		"104055"			
5-1438082-1	NO					
5-1438841-9	NO					
5-1924939-0	NO					
5-1924939-1	NO					
5-1924939-4	NO					
5-1924939-5	NO					
5-1924939-6	NO					
5-1924939-7	NO					
5-2098269-0	NO					
5-2138685-5	NO					
5-2203541-6	NO					
5-2203541-7	NO					
5-2203542-0	NO					
5-2272352-5	NO					
5-2306984-6	NO					
5-2306984-7	NO					
6-1419166-1	NO		"V23542-G1404-A107"			
6-1419166-2	NO		"V23542-G1404-A108"			
6-1419167-1	NO		"V23542-G1416-A107"			
6-1924939-5	NO					
6-1924939-9	NO					
6-2098922-6	NO					
6-2203541-3	NO					
6-2203541-5	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
6-2203541-6	NO					
6-2203542-1	NO					
6-2203542-2	NO					
6-2203542-8	NO					
6-2203542-9	NO					
6-2309433-1	NO					
6-776728-8	NO					
6-776728-9	NO					
6-776729-0	NO					
6-776729-3	NO					
6-776729-4	NO					
6-776729-5	NO					
638014-1	NO					
638079-1	NO					
638082-1	NO					
638097-2	NO					
638113-1	NO					
638116-1	NO					
638119-1	NO					
638137-1	NO					
638141-1	NO					
638143-1	NO					
638147-1	NO					
638151-1	NO					
638157-1	NO					
638199-2	NO					
638207-6	NO					
638207-8	NO					
638245-1	NO					
638245-2	NO					
638286-2	NO					
638392-1	NO					
638392-2	NO					
638392-3	NO					
638393-1	NO					
638393-3	NO					
638393-5	NO					
638393-7	NO					
638394-1	NO					
638394-4	NO					
638394-5	NO					
638397-1	NO					
638444-9	NO					
638514-1	NO					
638514-8	NO					
638517-5	NO					
638518-5	NO					
638518-8	NO					
638817-3	NO					
638817-4	NO					
638817-8	NO					
638817-9	NO					
638818-2	NO					
638832-3	NO		"1000012806-0001"			
638849-7	NO					
638939-5	NO					
7-1326728-8	NO					
7-1326728-9	NO					
7-2098922-2	NO					
7-2203541-2	NO					
7-2203541-3	NO					
7-2203541-4	NO					
7-2203541-5	NO					
7-2203542-0	NO					
7-776728-0	NO					

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number(s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
7-776728-1	NO					
7-776729-2	NO					
7-776729-4	NO					
7-776729-5	NO					
776728-1	NO					
776729-1	NO					
776793-1	NO					
776793-2	NO					
776905-1	NO					
776905-8	NO					
776932-1	NO					
776932-3	NO					
776932-4	NO					
9-1419157-6	NO		"V23542-G1410-A107"			
9-1419166-0	NO		"V23542-G1408-A101"			
9-1438082-2	NO					
9-1454396-3	NO		"X109644C"			
917981-1	NO					
917981-2	NO					
917981-6	NO					
917989-1	NO		"0-0917989-1"			
917989-2	NO					
917989-6	NO					
917992-1	NO					
917992-6	NO					



Section 3

Customer Engineering Approval



Section 4

Design FMEA

See Section A for nondisclosure conditions.

The Design FMEA, if included, is a Class II confidential document belonging to TE Connectivity. A class II document may not be further distributed and is subject to the conditions of the nondisclosure agreement.



Section 5

Process Flow Diagram

See Section A for nondisclosure conditions.

The Process Flow Diagram, if included, is a Class II confidential document belonging to TE Connectivity. A class II document may not be further distributed and is subject to the conditions of the nondisclosure agreement.



Section 6

Process FMEA

See Section A for nondisclosure conditions.

The Process FMEA, if included, is a Class II confidential document belonging to TE Connectivity. A class II document may not be further distributed and is subject to the conditions of the nondisclosure agreement.



Section 7

Control Plan

**See Section A for nondisclosure conditions.
The Control Plan, if included, is a Class II confidential document
belonging to TE Connectivity. A class II document may not be
further distributed and is subject to the conditions of the
nondisclosure agreement.**



Section 8

Measurement System Analysis



DATA - GRR ATTRIBUTE STUDY

Empalme Site

DATE:	15-Mar-19	Work Center:	8567
REQUEST:	Mario Baidon	NUM. Gage-Fixture	49814608
QUALITY ENGINEER:	Mario Baidon	OPERATOR 1	-OPERATOR 1
MANUFACTURE ENGINEER	Josue Garcia	OPERATOR 2	-OPERATOR 2
PLANT:	Plant 2	OPERATOR 3	-OPERATOR 3
SPC TECHNICIAN:	Alejandro Rodriguez	Standard Record	2019-0449
PART NUMBER:	1456987-3		
COMMENT General:	Vision System 49814608		

Known Population				-OPERATOR 1			Expert	-OPERATOR 2			Expert	-OPERATOR 3			Expert	OPER VS OPER	OPER VS SAMPLE
# ID	Num Sample	DETAILS	Standard	Try #1	Try #2	Try #3	Result	Try #1	Try #2	Try #3	Result	Try #1	Try #2	Try #3	Result	Agree	Agree
1	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
2	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
3	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
4	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
5	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
6	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
7	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
8	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
9	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
10	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
11	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
12	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
13	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
14	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
15	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
16	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
17	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
18	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
19	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
20	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
21	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
22	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
23	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
24	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
25	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
26	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
27	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
28	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
29	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
30	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
31	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK



DATA - GRR ATTRIBUTE STUDY

Empalme Site

DATE:	15-Mar-19	Work Center:	8567
REQUEST:	Mario Baidon	NUM. Gage-Fixture	49814608
QUALITY ENGINEER:	Mario Baidon	OPERATOR 1	-OPERATOR 1
MANUFACTURE ENGINEER	Josue Garcia	OPERATOR 2	-OPERATOR 2
PLANT:	Plant 2	OPERATOR 3	-OPERATOR 3
SPC TECHNICIAN:	Alejandro Rodriguez	Standard Record	2019-0449
PART NUMBER:	1456987-3		
COMMENT General:	Vision System 49814608		

Known Population				-OPERATOR 1			Expert	-OPERATOR 2			Expert	-OPERATOR 3			Expert	OPER VS OPER	OPER VS SAMPLE
# ID	Num Sample	DETAILS	Standard	Try #1	Try #2	Try #3	Result	Try #1	Try #2	Try #3	Result	Try #1	Try #2	Try #3	Result	Agree	Agree
32	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
33	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
34	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
35	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
36	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
37	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
38	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
39	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
40	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
41	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
42	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
43	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
44	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
45	4	WRONG KEY	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
46	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
47	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
48	1	GOOD SAMPLE	YES	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	YES	YES	YES	ACCEPTED	OK	OK
49	3	CLOSED TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK
50	2	MISSING TPA	NO	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	NO	NO	NO	ACCEPTED	OK	OK

Final comments of the study:

SPC Technician: Must be sent to answer to request, quality engineer and manufacture engineer.



REPORT GRR ATTRIBUTE

DATE	15-Mar-19	ID - EQUIPMENT
STANDAR RECORD	2019-0449	49814608
Work Center:	8567	
RESULT	ACCEPTED	

Operators

Inspected total

Agreement

95% UCL

Calculated Score

95% LCL

% OPER VS OPER			% OPER VS SAMPLE		
-	-	-	-	-	-
OPERATO R 1	OPERATOR 2	OPERATO R 3	OPERATO R 1	OPERATOR 2	OPERATO R 3
50	50	50	50	50	50
50	50	50	50	50	50
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
94.18%	94.18%	94.18%	94.18%	94.18%	94.18%

Total Inspected

□ coincidencias

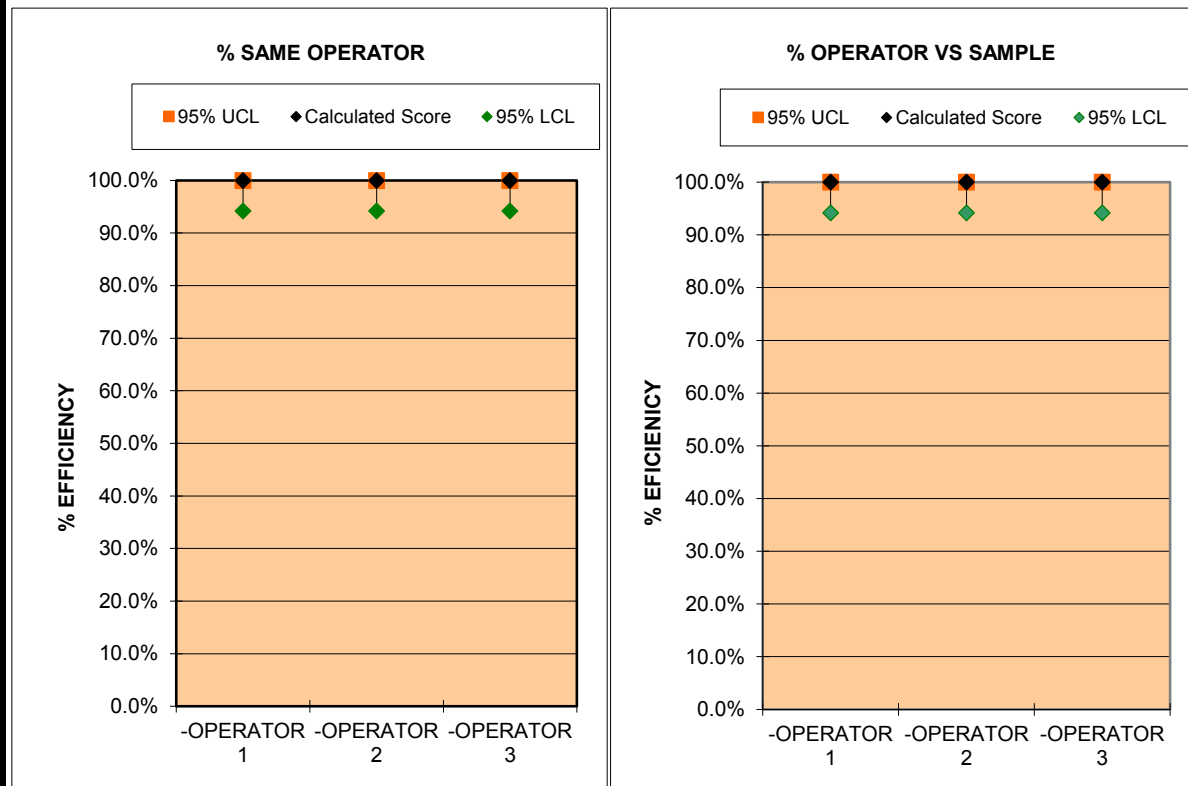
95% UCL

Calculated Score

95% LCL

Screen % Effective Score	
	50
	50
	100.0%
	100.0%
	94.18%

Screen % Effective Score vs Standard	
	50
	50
	100.0%
	100.0%
	94.18%



Section 9

Dimensional Results



Production Part Approval

DIMENSIONAL TEST RESULTS



TE Connectivity-Empalme is accredited by ANSI-ASQ National Accreditation Board for ISO/IEC 17025 under a defined calibration and/or testing scope.

Organization: TE Connectivity				Part Number: 1456987-1/1456987-3/1456987-5/1456987-7						
Supplier/Vendor Code: N/A				Part Name: 2 X 4 POSITION GET, FEMALE CONNECTOR, ASSEMBLY						
INSPECTION FACILITY: TE Connectivity Empalme Metrology lab				Design Record Change Level: DWG. C-1456987 REV. D3						
				Engineering Change Documents: N/A						
				# Folio: 44364 Page 1 of 1						

Item	Dim./Spec.	Spec. / Limits tol + tol -	Units	Organization Measurement Results (Data)						Ok	Not Ok	Instrument # ID
				SAMPLE 1	SAMPLE 2	SAMPLE 3	SAMPLE 4	SAMPLE 5	SAMPLE 6			
1	23.4	REFERENCE	mm.	23.46	23.44	23.45	23.46	23.48	23.45	✓		LMMC-010
2	17.60	REFERENCE	mm.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3	2.54	BASIC	mm.	2.539	2.537	2.539	2.529	2.543	2.538	N/A	N/A	LMMC-010
	2.54	BASIC	mm.	2.536	2.534	2.532	2.522	2.538	2.530	N/A	N/A	
	2.54	BASIC	mm.	2.539	2.531	2.535	2.530	2.536	2.528	N/A	N/A	
	2.54	BASIC	mm.	2.530	2.533	2.520	2.535	2.523	2.531	N/A	N/A	
4	1.27	BASIC	mm.	1.253	1.288	1.253	1.274	1.264	1.276	N/A	N/A	LMMC-010
	1.27	BASIC	mm.	1.256	1.273	1.260	1.270	1.264	1.249	N/A	N/A	
5	2.54	BASIC	mm.	2.534	2.527	2.535	2.526	2.535	2.529	N/A	N/A	LMMC-010
	2.54	BASIC	mm.	2.542	2.534	2.538	2.535	2.540	2.532	N/A	N/A	
	2.54	BASIC	mm.	2.527	2.530	2.536	2.527	2.535	2.529	N/A	N/A	
	2.54	BASIC	mm.	2.532	2.539	2.530	2.535	2.532	2.537	N/A	N/A	
	2.54	BASIC	mm.	2.530	2.522	2.527	2.529	2.531	2.526	N/A	N/A	
	2.54	BASIC	mm.	2.541	2.531	2.539	2.527	2.539	2.529	N/A	N/A	
6	13.47	REFERENCE	mm.	13.481	13.477	13.490	13.489	13.464	13.474	✓		LMMC-010
7	24	MINIMUM	mm.	OK	OK	OK	OK	OK	OK	✓		
8	HOUSING		visual	OK	OK	OK	OK	OK	OK	✓		
9	SPACER		visual	OK	OK	OK	OK	OK	OK	✓		
10	CPA (OPTIONAL)		visual	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
11	CIRCUIT IDENTIFICATION NUMBERS LOCATED AS SHOWN.			OK	OK	OK	OK	OK	OK	✓		
12	SPACER AND CPA ARE SHIPPED IN PRE-ASSEMBLED POSITION.			OK	OK	OK	OK	OK	OK	✓		
13	PART NUMBER AND DATE CODE.			OK	OK	OK	OK	OK	OK	✓		
14	CAVITY ID.			OK	OK	OK	OK	OK	OK	✓		
15	MATERIAL SPECIFICATION.			OK	OK	OK	OK	OK	OK	✓		
16	PACKING : CONNECTOR ASSEMBLIES BULK PACKED IN CARDBOARD BOX.			OK	OK	OK	OK	OK	OK	✓		

CONCLUSION:			
TOTAL # OF FEATURES	90		
LESS BASIC DIMENSIONS	72		
LESS REFERENCE DIMENSIONS	12		
REPORTED DIMENSIONS	6		
# DIMENSIONS IN TOLERANCE	6		
# DIMENSIONS OUT OF TOLERANCE	0		
% DIMENSION IN TOLERANCE	100.00 %		
% DIMENSION OUT OF TOLERANCE	0.00 %		

March 2006 CFG-1003

AEF004J-EG Rev: J

SIGNATURE	TITLE	DATE
Daniel Zazueta	Metrology Chief	January 22, 2019



Section 10

Material, Performance Test Results

219678149

Certificate of Analysis

Customer:	Product Number	: 55558828
	Product Name	: ULTRAMID® A3EG7 BLACK 23189 POLYAMIDE
TE CONNECTIVITY CORPORATION 719 PEGG RD, BLDG 253 GREENSBORO NC 27409-9672	Vehicle	:
	Batch/Lot	: 0207494953
Attention:	Manuf.Date	: Sep-14-2018
FAX:	Shipped Date	: Sep-17-2018
Cust Prod: 702661-9	Shipped Quantity	: 20,412.000 KG
Cust Prod Name: ULT.A3EG7 BK23189	Delivery Date	: Sep-18-2018
Cust P.O.: 2705678146	Order Number	: 116337334 000010
Cust P.O. Line: 1	Delivery Note	: 129486338 000010

Inspection Certificate 3.1 according to EN 10204

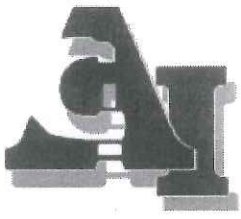
Characteristic	Result	UOM	-----Specification-----		Test Method
			Minimum	Maximum	
Ash / Filler Content	33.967	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.05	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	138	ml/g	130	160	ISO 307

Comments :

Results shown are the means of individual test values determined on samples taken during production of the lot specified.

This product is approved for the following specifications:

MS-DB41 CPN 2224
MS-DB41 CPN 3695
M5600
M53122



Ames Industries, Inc.

2999 Elizabethtown Rd.

Hershey, PA 17033

(717) 533-3400 Fax (717) 533-7686

CERTIFICATE OF CONFORMANCE

Company: **TE CONNECTIVITY CORPORATION**

A1694

PO Number **SA 2550063932**

P/N **2-1419170-0-B1** Rev 3 D01 Part Description **2 X 4 GET FEMALE SPACER**

Quantity Shipped

150,000

Raw Material No. / Description / Supplier

1-703566-3 / VALOX 508-R RD6C017 RED / SABIC

Lot Number

25306-0005534045

WE CERTIFY THAT THE ABOVE PART NUMBER MEETS THE REQUIREMENTS OF THE
APPLICABLE TE CONNECTIVITY CORPORATION PRODUCT PRINT AND SPECIFICATIONS.
COMPLIANCE WAS CERTIFIED BY THE UNDERSIGNED QUALITY ASSURANCE MANAGER.

Q.A. Signature:

Kevin Chabala

Date:

8/23/2017



Section 11

Initial Process Studies

Fit, form and function will not be affected, CPK is not applicable also because the dimensional plane not showing any special characteristics.

Section 12

Qualified Laboratory Documentation



CERTIFICATE OF ACCREDITATION

ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

TE Connectivity - Empalme

**Carretera Internacional Km. 1969 Guad-Nog. Km.2
Sonora, C.P. 85340, Mexico**

has been assessed by ANAB and meets the requirements of international standard

ISO/IEC 17025:2017

while demonstrating technical competence in the fields of

**CALIBRATION, TESTING
and DIMENSIONAL MEASUREMENT**

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

ACT-1173

Certificate Number


ANAB Approval

Certificate Valid Through: 05/03/2021
Version No. 005 Issued: 05/02/2019



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

TE Connectivity - Empalme

Carretera Internacional Km.1969 Guad-Nog. Km.2,
Sonora, C.P. 85340, Mexico
Daniel Zazueta 011-622-225-1174

CALIBRATION / DIMENSIONAL MEASUREMENT / TESTING

Valid to: **May 3, 2021**

Certificate Number: **ACT-1173**

TESTING

Mechanical Testing

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Force (0 to 200) lbf	Equipment Manual	Wiring Harnesses, Plastic and Metal Automotive Components	Force Gag
Mass (0 to 4) kg	Equipment Manual	Plastic and Metal Automotive Components	Scales
Moisture Content 45 g (50 to 200) °C	Work Instruction AEW021T-LB, Equipment Manual	Plastic Automotive Components	Ohaus MB 45 Moisture Analyzer
Melt Flow Rate	Work Instruction AEW022T-LB based on ASTM D1238, Equipment Manual	Plastic Automotive Components	Extrusion Plastometer Oven

DIMENSIONAL MEASUREMENT

Dimensional Measurement

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method and/or Equipment
Dimensional Measurement 1D	Up to 50 mm	0.0030 mm	Digital Height Indicator ASME Y14.5M, Engineering Drawing, Equipment Manual
Dimensional Measurement 1D	Up to 0.20 mm	0.0030 mm	Dial Test Indicator ASME Y14.5M, Engineering Drawing, Equipment Manual
Dimensional Measurement 1D	Up to 200 mm	0.021 mm	Calipers ASME Y14.5M, Engineering Drawing, Equipment Manual

Dimensional Measurement

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method and/or Equipment
Dimensional Measurement 1D	Up to 25.4 mm	0.0055 mm	Micrometers ASME Y14.5M, Engineering Drawing, Equipment Manual
Dimensional Measurement 1D	Up to 8 m	1.5 mm	Steel Measuring Tapes ASME Y14.5M, Engineering Drawing, Equipment Manual
Dimensional Measurement 1D	Up to 1 220 mm	1.5 mm	Steel Rule ASME Y14.5M, Engineering Drawing, Equipment Manual
Dimensional Measurement 3D	210 mm (X) 215 mm (Y) 100 mm (Z)	(2.34 + 1.14L) µm	Vision Systems ASME Y14.5M, Engineering Drawing, Equipment Manual

CALIBRATION
Length – Dimensional Metrology

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method and/or Equipment
Steel Measuring Tapes	Up to 8 m	0.28 mm	Digital Scale Work Instruction AEW001T-LB Tyco Spec 117-95 Calibration Steel Measuring Tapes. JIS B 7512 (1993)
Steel Rules	Up to 1 220 mm	0.12 mm	Master Height Gage Digital Scale Work Instruction AEW001T-LB Tyco Spec. 117-94 Calibration Steel Rules, JIS B 7516 (1987)
Granite Surfaces Plates Repeatability Resolution 0.00001 in	(12 x 18) in to (40 x 60) in	39 µin	Mahr Repeat-o-meter Precision Dial Indicator Work Instruction AEW002T-LB, JIS B 7513 (1992), GGG-P-463c-1973
Dial Test Indicator (lever-type)	Up to 1 mm	0.012 mm	Height Master Work Instruction AEW004T-LB, JIS B 7533 (1990), Tyco Spec 117-14 Dial Indicator, Electronic and
Calipers	Up to 200 mm	0.023 mm	Gage Blocks Ring Gages Work Instruction AEW005T-LB, JIS B 7507 (1993), Tyco Spec 117-9 Caliper, Vernier, Dial and Digital

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method and/or Equipment
Micrometer	Up to 25.4 mm	0.0016 mm	Gage Blocks Grade 2 Work Instruction AEW006T-LB, JIS B 7502 (1994), Tyco Spec 117-5 Micrometer, Inch/Metric, Outside, Blade and Flange
Optical Comparator	Up to 300 mm (X,Y)	0.0046 mm	Glass Scale Work Instruction AEW007T-LB, JIS B 7184:1999, Tyco Spec 117-19 Optical Comparators
Video Comparator	Up to 300 mm (X,Y,Z)	0.0052 mm	Glass Scale Gage Blocks Work Instruction AEW007T-LB, JIS B 7184:1999
Digital Height Indicator (Travel-Type)	Up to 50 mm	0.0021 mm	Gage Blocks Work Instruction AEW008T-LB, Tyco Spec. 117-14 Dial Indicator Electronic and Mechanical

Mass

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-) ¹	Reference Standard, Method and/or Equipment
Force Gage	Up to 200 lb·f	0.057 lb·f	Master Weights Work Instruction AEW003T-LB, Tyco Spec 117-70 Force Gages
Scales (0.01 g Resolution)	(0 to 4) kg	0.091 g	Master Weights Class NIST Handbook & ASTM Work Instruction AEW015T-LB, NOM-010-SCFI-1994

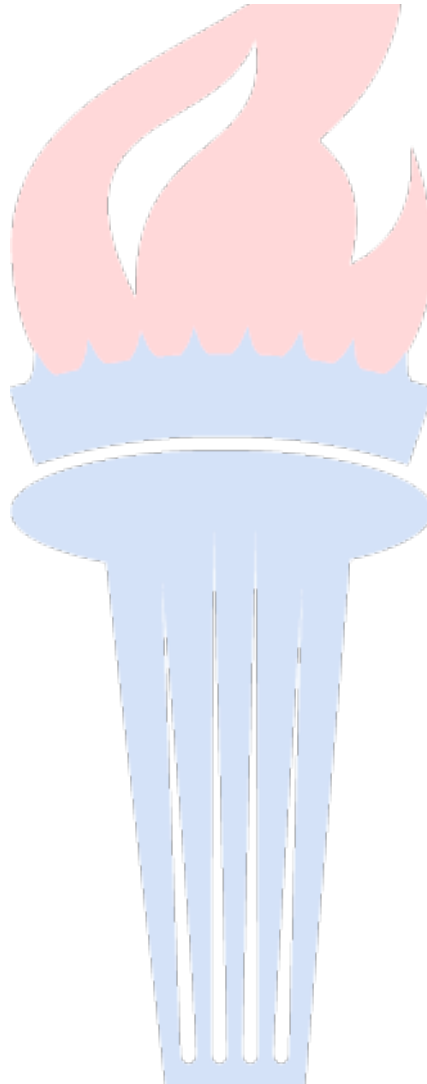
Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ($k=2$), corresponding to a confidence level of approximately 95%.

Notes:

1. L in uncertainties represents length in inches.
2. The uncertainty associated when calibrating a balance/scale is dependent on local conditions, such as the resolution of the unit being calibrated and the environment in which the balance/scale is operating. The uncertainty listed in the scope here represents the best uncertainty for a balance/scale which the organization typically calibrates in its lab. Since field (on-site) conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected in the field (on-site) than what is reported on the accredited scope.
3. This scope is formatted as part of a single document including the Certificate of Accreditation No. ACT-1173.



Vice President



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - IATF 16949:2016

This is to certify that:

TE Connectivity
Global Automotive Division
Americas North
Carretera Internacional, KM 1969
Guadalajara-Nogales Km 2
Empalme
Sonora
85340
Mexico

operates a Quality Management System which complies with the requirements of IATF 16949:2016 for the following scope:

Design and manufacture of electrical interconnecting devices.

For and on behalf of BSI:


Carlos Pitanga, Chief Operating Officer Assurance – Americas

BSI Certificate Number: 514458-003

IATF Number: 0315420



Certification Date: 2018-07-11

Latest Issue: 2018-07-11

Page: 1 of 2

...making excellence a habit.™

Expiry Date: 2021-07-10

This certificate remains the property of BSI and shall be returned immediately upon request.

An electronic certificate can be authenticated [online](http://www.bsigroup.com/ClientDirectory). Printed copies can be validated at www.bsigroup.com/ClientDirectory

To be read in conjunction with the scope above or the attached appendix.

Further clarifications regarding the scope of this certificate and the applicability of IATF 16949 requirements may be obtained by consulting the organization.

IATF Contracted Office: BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.

Location

TE Connectivity
Global Automotive Division
Americas North
Carretera Internacional, KM 1969
Guadalajara-Nogales Km 2
Empalme
Sonora
85340
Mexico

Registered Activities

Manufacture of interconnecting devices.

Including the following remote support functions:

TE Connectivity
Global Automotive Division
Americas North
900 Wilshire Boulevard
Suite 150
Troy, MI 48084
Design and Development.

TE Connectivity
Global Automotive Division
Americas North
Fulling Mill Road
Middletown, PA 17057
Design and Development, Product Testing and Customer Service.

TE Connectivity
Global Automotive Division
Americas North
3800 Reidsville Road
Winston-Salem, NC 27102
Design and Development, Product Testing and Calibration, Business Office (Quote Process) and Purchasing.

TE Connectivity
Global Automotive Division
Americas North
20 Esna Park Drive
Markham, Ontario
L3R 1E1 Canada
Design and Development and product testing (optics lab)

TE Connectivity
Global Automotive Division
Americas North
2100 Paxton Street
Harrisburg, PA 17111
Provision of Product Testing to TE Connectivity Manufacturing Sites.

TE Connectivity North Carolina
Distribution Center
8000 Piedmont Triad Parkway
Greensboro, North Carolina 27409
Receiving Inspection, Storage / Inventory.

BSI Certificate Number: 514458-003

IATF Number: 0315420



Certification Date: 2018-07-11

Latest Issue: 2018-07-11

Expiry Date: 2021-07-10

Page: 2 of 2

This certificate remains the property of BSI and shall be returned immediately upon request.

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IATF Contracted Office: BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.

Section 13

Appearance Approval Report

Not Applicable

Section 14

Sample Product

Sent in separate package
(if required)



Section 15

Master Sample

Retained at manufacturing location

Section 16

Checking Aids

Not Applicable

Section 17

Records of Compliance with Customer-Specific Requirements

MDS Report

Substances of assemblies and materials

This report is for internal Automotive industry use only. Distribution to non-Automotive clients is a violation of the Terms of Use, and is not permitted unless a written permission was given by DXC Technology. Parsing is not allowed.

1. Company and Product Name

1.1 Supplier Data

Name ⓘ **Tyco Electronics GAD
[913]**

DUNS Number: **-**

Street/Postal Code: **Amperestr. 12-14**

Nat./ZipCode/City: **DE 64625 Bensheim**

Supplier Code: **-**

Contact Person: **IMDS Team (India)
Engineering Services**

- Phone: **-**

- Fa☐No.: **-**

- E-Mail Address: **IMDS@te.com**

1.2 Product Identification

Part/Item No.: **0-1456987-3**

Description: **2x4 Position, GET,
Female Connector
Assembly**

Report No.: **-**

Date of Report: **-**

Purchase Order No.: **-**

Bill of Delivery No.: **-**

Preliminary MDS: **No**

IMDS ID / Version: **130071544 / 7**

Node ID: **659494318**

MDS Status (Change Date): **Internally
released
(05/17/2017)**

MDS Report

Substances of assemblies and materials

Materials which are subject to legal prohibitions must not be included!
Dangerous substances formed or released during use must also be declared
Please note: GADSL list for substances that require declaration

2. Characterization of the Component

Part/Item No.: 0-1456987-3
Description: 2x4 Position, GET, Female Connector Assembly

Report No.: -
IMDS ID / Version: 130071544 / 7
Node ID: 659494318

Tree Level	Description Article Name Name Substance name	Part/Item No. Item- /Mat.-No. Material-No. CAS No.	IMDS ID / Version	 Quantity	Weight [g]	Portion [%]	Portion (from - to) [%]	 Classif.  GADSL, SVH C	Parts Marking Recyclate (Indust./Consumer) Application [ID]
1	 2x4 Position, GET, Female Connector Assembly	 0-1456987-3	130071544 / 7		2.53				
└2	 2x4 Posn., GET. Female Housing-Black	 0-1456986-2	130071469 / 4	1	2.06				 Yes
└3	 PA66-GF35	 702661-9	70521492 / 3		2.06			 5.1.a	 No
└4	 Further Additives, not to declare	 system				0.5			

Tree Level	Description Article Name Name Substance name	Part/Item No. Item- /Mat.-No. Material-No. CAS No.	 IMDS ID / Version	 Quantity	 Weight [g]	 Portion [%]	 Portion (from - to) [%]	Classif. GADSL, SVHC	Parts Marking Recyclate (Indust./Consumer) Application [ID]
└4	GF-Fibre	-				35			
└4	Carbon black	1333-86-4				0.5			
└4	PA66	-				64			
└2	2 4 Pos GET Female Spacer - Red	2-1419170-0	3660123 / 11	1	0.47				Yes
└3	PBT PC-GF30	1-703566-3	553590750 / 1		0.47			5.1.a	No
└4	PBT PC	-				66.23431	60 - 70		
└4	GF-Fibre	-				28.117155	25 - 30		
└4	Further Additives, not to declare	system				1.870293	0 - 3		
└4	Pigment portion, not to declare	system				1.870293	0 - 3		
└4	Zinc sulphide	1314-98-3				1.90795	0.1 - 3	D / P	
This is an uncontrolled copy of a document created by IMDS. End of the report.									



Section 18

Part Submission Warrant



Part Submission Warrant

Part Name	<u>2x4 Fem unsealed LP assy Key C</u>	Cust. Part Number	
Shown on Drawing No.	<u>C-1456987</u>	Org. Part Number	<u>1456987-3</u>
Engineering Change Level	<u>D3</u>	Dated	<u>Oct 09, 2014</u>
Additional Engineering Changes	<u>N / A</u>	Dated	<u>N / A</u>
Safety and/or Government Regulation	☐ Yes ☒ No	Purchase Order No.	<u>N / A</u>
Weight (kg)	<u>0.00253</u>		
Checking Aid Number	<u>N / A</u>	Checking Aid Engineering Change Level	<u>N / A</u>
Dated	<u>N / A</u>		

ORGANIZATION MANUFACTURING INFORMATION

TE Connectivity / 588115092

Supplier Name & Supplier/Vendor Code

Carretera Int. Km. 1969 Guadalajara-Nogales Km. 2

Street Address

<u>Empalme</u>	<u>Sonora</u>	<u>85340</u>	<u>México</u>
City	Region	Postal Code	Country

CUSTOMER SUBMITTAL INFORMATION

Nursan Kablo Donanimlari

Customer Name/Division

Not Provided

Buyer/Buyer Code

Various

Application

MATERIALS REPORTING

Reporting of all materials, not just Substances of Concern, may be required by certain OEMs or other customers.

Has customer-required Substances of Concern information been reported? ☒ Yes ☐ No

Submitted by IMDS or other customer format:

130071544 / 7

Are polymeric parts identified with appropriate ISO marking codes?

☒ Yes ☐ No ☐ N/A

REASON FOR SUBMISSION

- | | |
|--|--|
| ☐ Initial submission | ☐ Change to Optional Construction or Material |
| ☐ Engineering Change(s) | ☐ Sub-Supplier or Material Source Change |
| ☒ Tooling: Transfer, Replacement, Refurbishment, or additional | ☐ Change in Part Processing |
| ☐ Correction of Discrepancy | ☐ Parts produced at Additional Location |
| ☐ Tooling Inactive >than 1 year | ☐ Other - please specify |

REQUESTED SUBMISSION LEVEL (Check one)

- ☐ Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- ☐ Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- ☐ Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- ☒ Level 4 - Warrant and other requirements as defined by customer.
- ☐ Level 5 - Warrant with product samples and complete supporting data reviewed at supplier's manufacturing location.

SUBMISSION RESULTS

The results for ☒ dimensional measurements ☒ material and functional tests ☐ appearance criteria ☐ statistical process package

These results meet all design record requirements: ☒ YES ☐ NO (If NO""C-Explanation Required)

Mold / Cavity / Production Process Assembly Process

DECLARATION

I affirm that the samples represented by this warrant are representative of our parts, which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at a production rate of TE Property /24 hours. I also certify that the documented evidence of such compliance is on file and available for review. I have noted any deviation from the declaration below.

EXPLANATION/COMMENTS: P-18-016097. Rate is TE Property.

Is each Customer Tool properly tagged and numbered ☐ Yes ☐ No ☒ N/A

Organization Authorized Signature Julia Avilés Date 17-May-2019

Print Name Julia Avilés Phone No. +52 (662) 500 36 80 Fax No. N/A

Title PPAP Technician E-mail julia.avilez@te.com

FOR CUSTOMER USE ONLY (IF APPLICABLE)

Part warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature _____ Date _____

Print Name _____ Customer Tracking Number (optional) _____

March 2006 **CFG-1001**

Optional customer tracking number: _____



Section 18a

Bulk Material Requirements



Not Applicable