# Table of Contents

## *PPAP Package for:*

**Customer Name Nursan Kablo Donanimlari**
**Customer Part Number**
**(TE Connectivity Part Number) 2035363-7**

# 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.

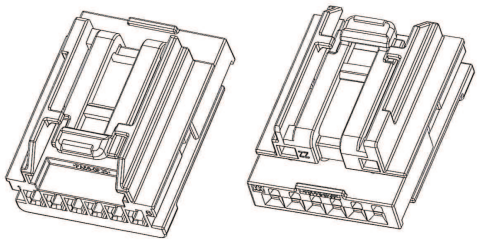
Initial Submission

# Section 1

# Design Records

| ITEM | DESCRIPTION | COLOR | FORD COMPONENT PART NO. | SUPPLIER COMPONENT PART NO. | MATERIAL/ SPEC ID | RECYLING CODE | WEIGHT | NO. OF ITEMS REQUIRED | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PLUG HOUSING - KEYING "B" | BLACK | N/A | 2035362-1 | PA66-GF35 | >PA66-GF35< | TBD | 1 | 1 | | | | | | | | |
| 2 | PLUG HOUSING - KEYING "C" | BLACK | N/A | 2035362-2 | PA66-GF35 | >PA66-GF35< | TBD | | | 1 | 1 | | | | | | |
| 3 | PLUG HOUSING - KEYING "D" | BLACK | N/A | 2035362-3 | PA66-GF35 | >PA66-GF35< | TBD | | | | | 1 | 1 | | | | |
| 4 | PLUG HOUSING - KEYING "E" | BLACK | N/A | 2035362-4 | PA66-GF35 | >PA66-GF35< | TBD | | | | | | | 1 | 1 | | |
| 5 | PLUG HOUSING - KEYING "F" | BLACK | N/A | 2035362-5 | PA66-GF35 | >PA66-GF35< | TBD | | | | | | | | | 1 | 1 |
| 6 | SPACER | RED | N/A | 2035361-1 | PBT+PC-GF30 | >PBT+PC-GF30< | TBD | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 7 | CPA | RED | N/A | 8-1419168-4 | PBT-GF20 | >PBT-GF20< | TBD | | 1 | | 1 | | 1 | | 1 | | 1 |

| ASSEMBLY PART NO.'S | | | MATING COMPONENT | |
|---|---|---|---|---|
| FORD COMPONENT PART NO. | SUPPLIER COMPONENT PART NO. | MAX. TEMP (AMBIENT + RISE) | FORD COMPONENT PART NO. | SUPPLIER COMPONENT PART NO. |
| DU5T-14489-LA | 2035363-1 | CLASS II 100°C | N/A | N/A |
| N/A | 2035363-2 | CLASS II 100°C | N/A | N/A |
| DU5T-14489-MA | 2035363-3 | CLASS II 100°C | N/A | N/A |
| DU5T-14489-SA | 2035363-4 | CLASS II 100°C | N/A | N/A |
| DU5T-14489-NA | 2035363-5 | CLASS II 100°C | N/A | N/A |
| DU5T-14489-TA | 2035363-6 | CLASS II 100°C | N/A | N/A |
| DU5T-14489-PA | 2035363-7 | CLASS II 100°C | N/A | N/A |
| N/A | 2035363-8 | CLASS II 100°C | N/A | N/A |
| DU5T-14489-RA | 2035363-9 | CLASS II 100°C | N/A | N/A |
| N/A | 1-2035363-0 | CLASS II 100°C | N/A | N/A |



ISO VIEWS
SCALE 4:1

1. PART MUST CONFORM TO THE ELECTRICAL CONNECTION SYSTEM DESIGN SPECIFICATION (SDS) VER. 17, DATED 17FEB2010.
2. PART MUST CONFORM TO USCAR-2 REV 5, DATED NOV 2007.
3. MAXIMUM MATING FORCE FULLY POPULATED WITH TIN (PLATED) TERMINALS = TBD
4. TERMINAL EXTRACTION TOOL: TBD

⚠5 PRODUCTION DATE CODE.

| LTRS | REVISIONS | | | |
|---|---|---|---|---|
| ORIGINATOR | CHECKER | ENGR APP | MATL APP | |

RELEASED FOR PRODUCTION AUTHORITY
DU5T-14489-LA, DU5T-14489-MA, DU5T-14489-SA, DU5T-14489-NA, DU5T-14489-TA, DU5T-14489-PA, DU5T-14489-RA

AELE-E-117783996-604 DATE: 101222

| DRUMMOND | C. MARTIN | G. LEECE | |
|---|---|---|---|



REFERENCE: SUPPLIER ID 7298

PART MUST COMPLY WITH RESTRICTED SUBSTANCE MANAGEMENT STANDARD WSS-M99P9999-A1 TO SAFEGUARD HEALTH, SAFETY AND THE ENVIRONMENT

DRAFTED IN ACCORDANCE WITH FORD MOTOR COMPANY ENGINEERING CAD AND DRAFTING STANDARDS VERSION ____

3RD ANGLE PROJ
DIMENSIONS ARE IN MILLIMETERS

| CAD TYPE | CAD LOC. | CAD FILE | |
|---|---|---|---|
| X-PROE | PROI | 2035363_FORD | IS MASTER |
| OPER. NO. | UNIT | DRAWING | |
| | | DU5T-14489-LA | |
| DESIGN | DETAIL | TITLE | SHT 1 OF 4 |
| CHECKED | SAFETY | SLV ASY-WIRE CONNECTOR - FEMALE | |
| SCALE 5:1 | DATE | DIVISION | |
| | | PLANT | |
| | | FORD MOTOR COMPANY | |

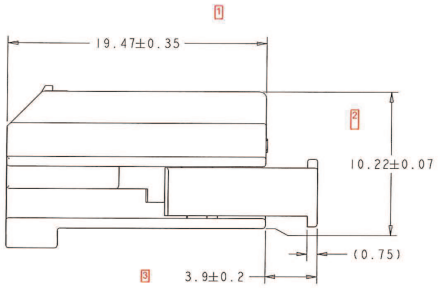
DU5T-14489-RA
DU5T-14489-PA
DU5T-14489-TA
DU5T-14489-NA
DU5T-14489-SA
DU5T-14489-MA

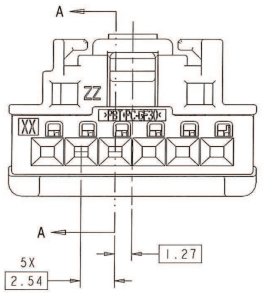
APPLICABLE COMPONENTS

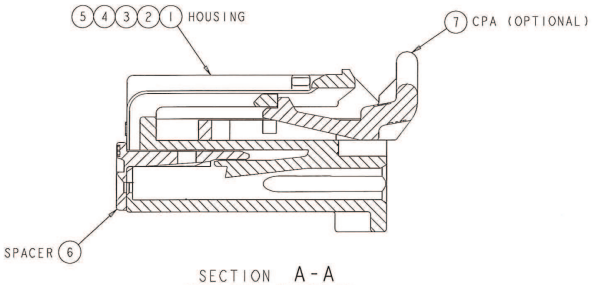
| ITEM | DESCRIPTION | MANDATORY (YES / NO) | TERMINAL CAVITY MAX (X) | PLATING/ MATERIAL | FORD COMPONENT PART NUMBER | SUPPLIER COMPONENT PART NUMBER |
|---|---|---|---|---|---|---|
| 1 | GENERATION Y 0.64 (20-22 AWG) | YES | Ø2.1 mm | TIN/COPPER ALLOY | DRAWING: 9U5T-14474-DA | 1456574-1 |
| 2 | GENERATION Y 0.64 (18 AWG) | YES | Ø2.1 mm | TIN/COPPER ALLOY | DRAWING: 9U5T-14474-DA | 1456574-2 |
| 3 | GENERATION Y 0.64 (26 AWG) | YES | Ø2.1 mm | TIN/COPPER ALLOY | DRAWING: 9U5T-14474-DA | 1456574-5 |
| | | | | | | |
| | | | | | | |

TE connectivity COPIA CONTROLADA
Firmado digitalmente por Gladys Gallegos
Nombre de reconocimiento (DN): cn=Gladys Gallegos, o, ou=TE Empaime Site, email=gladys.gallegos@te.com, c=ES
Fecha: 2017.03.02 12:42:39 -0700'

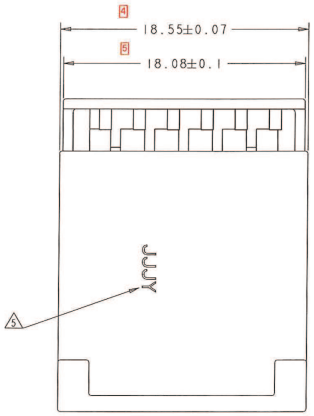
Pro/ENGINEER DRAWING

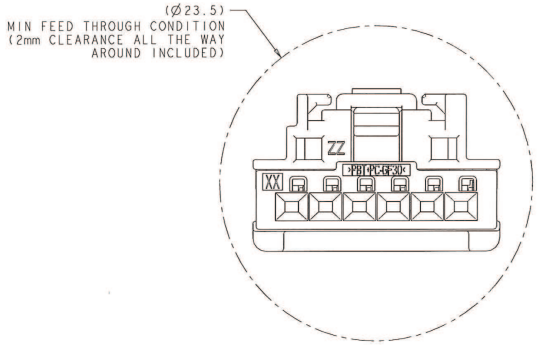



SECTION A-A
SHOWN WITH SPACER IN
FINAL ASSEMBLED POSITION



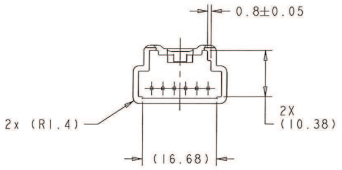




KEYING OPTION B

TE connectivity
COPIA CONTROLADA
Firmado digitalmente por Gladys Gallegos
Nombre de reconocimiento (DN): cn=Gladys Gallegos, o, ou=TE Empalme Sita, email=gladys.gallegos@te.com, c=ES
Fecha: 2017.03.02 12:42:39 -07'00'

| | | | |
|---|---|---|---|
| DRAWING | DU5T-14489-LA | REV | SHT 2 OF 4 |
| CAD FILE | 2035363_FORD | Ford | FORD MOTOR COMPANY |

KEYING OPTION B

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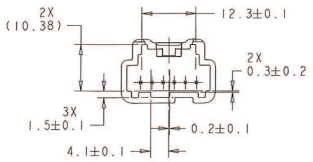
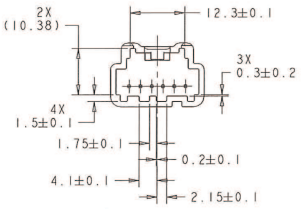
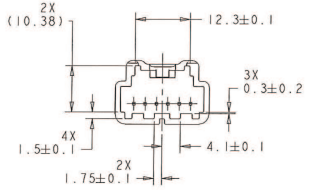



KEYING OPTION D

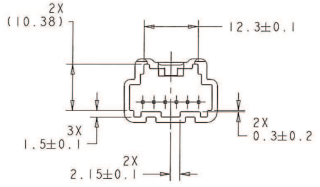



1X6
INTERFACE
SCALE 2:1

KEYING OPTION E




KEYING OPTOIN F

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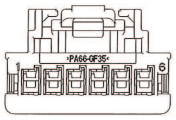


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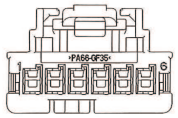


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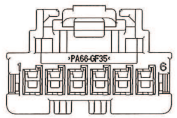
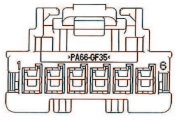
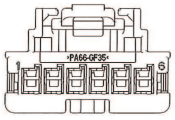



KEYING OPTION E




KEYING OPTION F

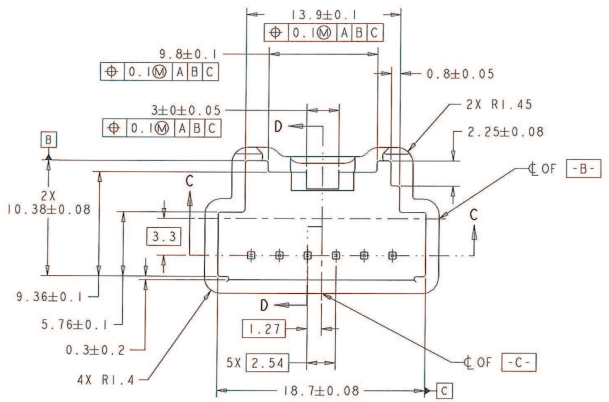


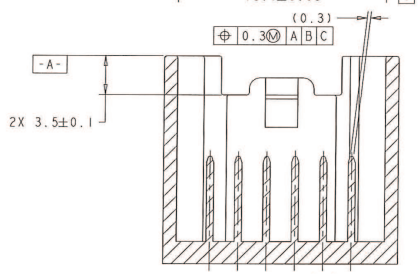

1X6
FEMALE HARNESS
SCALE 2:1



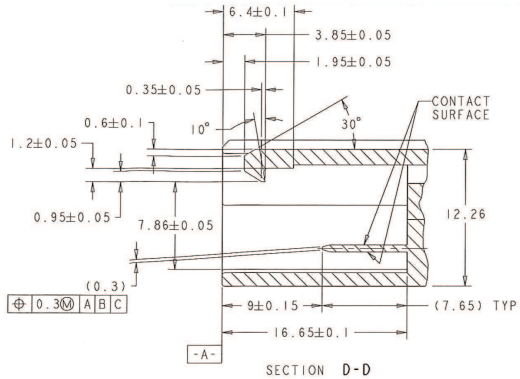
| | | | |
|---|---|---|---|
| DRAWING | DU5T-14489-LA | REV | SHT 3 OF 4 |
| CAD FILE | 2035363_FORD | FORD MOTOR COMPANY | |

## APPLICABLE HEADER SPECIFICATION




SECTION C-C




SECTION D-D

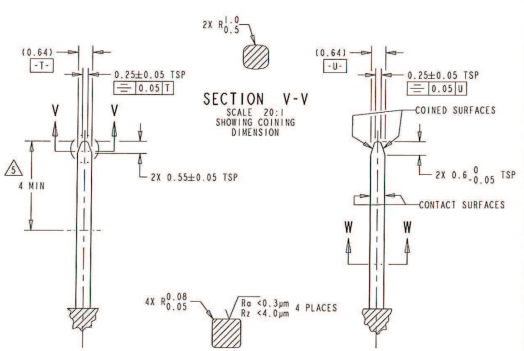
NOTES: UNLESS OTHERWISE SPECIFIED

1. GENERAL TOLERANCE:
   ± 0.3 ALL ONE PLACE DIMENSIONS
   ± 0.10 ALL TWO PLACE DIMENSIONS
   ± 3° 00′ ALL ANGULAR DIMENSIONS
2. DRAFT ANGLE PERMISSIBLE ONLY WITHIN DRAWING TOLERANCE
3. WHEN A TIN OR GOLD TERMINAL IS USED ON THE WIRING SIDE THEN THE CORRESONDING PLATING (i.e. TIN OR GOLD) MUST BE USED ON THE HEADER
4. PLATING ACCORDING TO SPEC. NUMBERS: ES-F8DB14A229-AA/BA/CA/DA

## RECOMMENDED PIN TIP GEOMETRY

NOTE(S):

1. MATERIAL: Cu ALLOY
   WITH TENSILE STRENGTH > 600 N/mm²
   ELECTRICAL CONDUCTANCE > 30 Sm/mm² (>50% IACS)
2. BASE PLATING: 2-3.5µm Ni ALL OVER.
   TIN PLATING: 2.5-4µm Sn.
   GOLD PLATING: 0.8µm MIN Au.
3. CONTACT MUST BE FREE OF BURRS AND SHARP EDGES.
4. ALL EDGES RADIUSED WITH R0.1-R0.2 IN THIS AREA.
5. TIN AND GOLD PLATING AREA.
6. PIN ROTATION ±5° MAXIMUM.




SECTION W-W
SCALE 20:1

0.64 X 0.64 PIN CONTACT
SCALE:8:1



| | | | |
|---|---|---|---|
| DRAWING | DU5T-14489-LA | REV | SHT 4 OF 4 |
| CAD FILE | 2035363_FORD | FORD MOTOR COMPANY | |

# Section 2

# Engineering Change Documents

# Not Applicable

# Section 3

# Customer Engineering Approval

# Not Applicable

# 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

## No MSA required - No significant characteristics on the print

# Section 9

# Dimensional Results

Production Part Approval

# DIMENSIONAL TEST RESULTS

ACT-1173

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

Organization: TE Connectivity

Supplier/Vendor Code: N/A

INSPECTION FACILITY:

TE Connectivity Empalme Metrology lab

Part Number: 2035363-X

Part Name: SLV ASY -WIRE CONNECTOR- FEMALE

Design Record Change Level: DWG: DU5T-14489-LA REV: LA

Engineering Change Documents: N/A

# Folio: 36147 Page ___1___ of ___1___

| Item | Dim./Spec. | Spec. / Limits tol + | tol - | Units | Organization Measurement Results (Data) SAMPLE 1 | SAMPLE 2 | SAMPLE 3 | SAMPLE 4 | SAMPLE 5 | SAMPLE 6 | Ok | Not Ok | Instrument # ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 19.47 | 0.35 | 0.35 | mm. | 19.455 | 19.469 | 19.459 | 19.472 | 19.485 | 19.451 | ✔ | | 6MC-001 |
| 2 | 10.22 | 0.07 | 0.07 | mm. | 10.150 | 10.162 | 10.197 | 10.166 | 10.188 | 10.180 | ✔ | | 6MC-001 |
| 3 | 3.90 | 0.2 | 0.2 | mm. | 3.835 | 3.793 | 3.878 | 3.786 | 3.996 | 3.756 | ✔ | | 6MC-001 |
| 4 | 18.55 | 0.07 | 0.07 | mm. | 18.506 | 18.516 | 18.520 | 18.520 | 18.523 | 18.538 | ✔ | | LMMI-004 |
| 5 | 18.08 | 0.1 | 0.1 | mm. | 18.154 | 18.146 | 18.153 | 18.118 | 18.180 | 18.145 | ✔ | | LMMI-004 |
| | NOTES: | | | | | | | | | | | | |
| 1 | PART MUST CONFORM TO THE ELECTRICAL CONNECTION SYSTEM DESIG SPECIFICATION ( SDS) VER, 17, DATED 17FEB2010 | | | | NOTED PER APQP TEAM | | | | | | ✔ | | |
| 2 | PART MUST CONFORM TO USCAR -2 REV. 5, DATED NOV 2007 | | | | NOTED PER APQP TEAM | | | | | | ✔ | | |
| 3 | MAXIMUM MATING FORCE FULLY POPULATED WITH TIN ( PLATED ) TERMINALS = TBD | | | | NOTED PER APQP TEAM | | | | | | ✔ | | |
| 4 | TERMINAL EXTRACTION TOOL: TBD | | | | NOTED PER APQP TEAM | | | | | | ✔ | | |
| 5 | PRODUCTION DATE CODE. | | | | OK | OK | OK | OK | OK | OK | ✔ | | |
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March 2006 CFG-1003

SIGNATURE: Daniel Zazueta

TITLE: Metrology Chief

DATE: March 24, 2017

# Section 10

# Material, Performance Test Results

Production Part Approval

# MATERIAL TEST RESULTS

| | | | |
|---|---|---|---|
| Organization: | **TE CONNECTIVITY** | Part Number: | 2035363-X |
| Supplier/Vendor Code: | **N/A** | Part Name: | 1X6 GENERATION Y ASSY KEY C |
| Material Supplier: | **SEE MATERIAL CERT** | Design Record Change Level: | B1 |
| *Customer Specified Supplier/Vendor Code: | **N/A** | Engineering Change Documents: | N/A |
| * If source approval is req'd, include the Supplier (Source) & Customer assigned code. | | Name of Laboratory: | **SEE ATTACHMENT** |

| Material Specification | | Specification Limits | Test Date | Qty. Tested | Test Results | Ok | Not Ok |
|---|---|---|---|---|---|---|---|
| 2035361-1 | 1X6 SPACER GENERA | SEE ATTACHMENT | | | SEE ATTACHMENT | **OK** | |
| 2035362-2 | 1X6 GENERATION Y HS | SEE ATTACHMENT | | | SEE ATTACHMENT | **OK** | |

March 2006 CFG-1004

Blanket statements of conformance are unacceptable for any test results.

| SIGNATURE | TITLE | DATE |
|---|---|---|
| R. CANO | SQE | 6/8/2018 |

**BASF CORPORATION**

We create chemistry

# Certificate of Analysis

| | | | | |
|---|---|---|---|---|
| Customer: | | Product Number | : | 52568990 |
| TE CONNECTIVITY CORPORATION | | Product Name | : | ULTRAMID® A3EG7 BLACK 23189 |
| 8350 E OLD VAIL RD | | | | POLYAMIDE 726KG FIBREBOARD IBC |
| TUCSON AZ 85747-9197 | | | | (11G) |
| | | Vehicle | : | 1899 |
| | | Batch/Lot | : | 0206618083 |
| | | Manuf.Date | : | Nov-30-2017 |
| Attention: | BASFORDERINFO@TE.COM | Shipped Date | : | Dec-15-2017 |
| eMAIL: | basforderinfo@te.com | Shipped Quantity | : | 3,201.112 LB |
| Cust Prod: | 702661-9 | Delivery Date | : | Dec-21-2017 |
| Cust Prod Name: | ULT.A3EG7 BK23189 726KG 11G | Order Number | : | 115743917 000020 |
| Cust P.O.: | 2703103955 | | | |
| Cust P.O. Line: | 20 | Delivery Note | : | 128590962 900001 |

**Inspection Certificate 3.1 according to EN 10204**

| | | | -----Specification----- | | |
|---|---|---|---|---|---|
| Characteristic | Result | UOM | Minimum | Maximum | Test Method |
| Ash / Filler Content | 34.368 | % | 33.000 | 37.000 | ASTM5630/ISO3451 |
| Moisture Content | 0.06 | % | | 0.15 | ASTM D6869 / ISO 15512B |
| Viscosity Number for Polyamides | 133 | 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

# Certificate of Analysis

**Certificate Type:**
Insp. certificate "3.1" EN 10204
**Date printed:** 09/14/2017

| | |
|---|---|
| TE CONNECTIVITY<br>8000 PIEDMONT TRIAD PARKWAY<br>North Carolina<br>27409<br>GREENSBORO<br>USA | **Shipped from details:**<br>SABIC INNOVATIVE PLASTICS US LLC<br>1 LEXAN LN<br>47620-0000<br>MT. VERNON<br>USA |

| | |
|---|---|
| Material Number | 22021926 |
| Material Description | 508R-RD3E204-OCT-00-00-00 |
| Material Group | VALOX™ resin |
| Batch Number | 0006018083 |
| Manufacturing Plant | Mt. Vernon |
| Sales Order | 1991979 |
| Delivery | 88675990 |
| Customer PO Number | 2701502189 |
| Customer Material Number | 1-703566-3 |

| Characteristic | Unit | Value | Lower Limit | Upper Limit | Inspection method |
|---|---|---|---|---|---|
| GLASS CONTENT | % | 29.7 | 28.0 | 32.0 | ASTM D5630 |
| METAL CONTAMINATION | - | Pass | - | - | SABIC |
| MVR 250°C @2.16KG | CC/10' | 8.9 | 6.0 | 9.7 | ISO 1133 |
| ***SPECIFIC GRAVITY*** | | ***1.49430*** | ***1.470*** | ***1.540*** | ***ASTM D792*** |

**The results in bold/italics are audit tests, latest done on 03/27/2017.**
**General Note : This document is computer generated and does not require a signature**
**Contact information can be found on www.SABIC.com.**

# Certificate of Analysis

**Certificate Type:**
Insp. certificate "3.1" EN 10204
**Date printed:** 09/14/2017

| | |
|---|---|
| TE CONNECTIVITY<br>8000 PIEDMONT TRIAD PARKWAY<br>North Carolina<br>27409<br>GREENSBORO<br>USA | **Shipped from details:**<br>SABIC INNOVATIVE PLASTICS US LLC<br>1 LEXAN LN<br>47620-0000<br>MT. VERNON<br>USA |



*** End ***

## Section 11

# Initial Process Studies

## No process studies required - No significant characteristics on the print

# Section 12

# Qualified Laboratory Documentation

bsi.

By Royal Charter

# Certificate of Registration

## QUALITY MANAGEMENT SYSTEM - ISO/TS 16949:2009

This is to certify that:

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

Holds Certificate No: **TS 514458-003**

and operates a Quality Management System which complies with the requirements of ISO/TS 16949:2009 for the following scope:

Design and manufacture of electrical interconnecting devices.

For and on behalf of BSI:

Carlos Pitanga, SVP, System Certification and Compliance

Issue Date: 05/30/2016 Latest Issue: 05/30/2016 Expiry Date: 09/14/2018

IATF Number: 0239622



...making excellence a habit.™

Certificate No: **TS 514458-003**

| Location | Registered Activities |
|---|---|
| TE Connectivity<br>Global Automotive Division<br>Americas North<br>Carretera Internacional, KM 1969<br>Guadalajara-Nogales Km 2<br>Empalme<br>Sonora<br>85340<br>Mexico | Manufacture of interconnecting devices.<br><br>Including the following remote support functions:<br><br>TE Connectivity<br>Global Automotive Division<br>Americas North<br>900 Wilshire Boulevard<br>Suite 150<br>Troy, MI 48084<br>Design and Development.<br><br>TE Connectivity<br>Global Automotive Division<br>Americas North<br>Fulling Mill Road<br>Middletown, PA 17057<br>Design and Development, Product Testing and Customer Service.<br><br>TE Connectivity<br>Global Automotive Division<br>Americas North<br>3800 Reidsville Road<br>Winston-Salem, NC 27102<br>Design and Development, Product Testing and Calibration, Business Office (Quote Process) and Purchasing.<br><br>TE Connectivity<br>Global Automotive Division<br>Americas North<br>20 Esna Park Drive<br>Markham, Ontario<br>L3R 1E1 Canada<br>Design and Development and product testing (optics lab).<br><br>TE Connectivity<br>Global Automotive Division<br>Americas North<br>2100 Paxton Street<br>Harrisburg, PA 17111<br>Provision of Product Testing to TE Connectivity Manufacturing Sites. |

Issue Date: 05/30/2016 Latest Issue: 05/30/2016 Expiry Date: 09/14/2018

IATF Number: 0239622

Certificate No: **TS 514458-003**

| Location | Registered Activities |
|---|---|
| | TE Connectivity North Carolina<br>Distribution Center<br>8000 Piedmont Triad Parkway<br>Greensboro, North Carolina 27409<br>Receiving Inspection, Storage / Inventory. |



Issue Date: 05/30/2016 Latest Issue: 05/30/2016 Expiry Date: 09/14/2018

IATF Number: 0239622

# CERTIFICATE OF ACCREDITATION

**ANSI-ASQ National Accreditation Board**
500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

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 17025:2005

while demonstrating technical competence in the fields of

# CALIBRATION & TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of calibrations / tests to which this accreditation applies.

ACT-1173
Certificate Number

ANAB Approval

Certificate Valid: 04/24/2018-05/03/2019
Version No. 004 Issued: 04/24/2018

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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).

ANSI-ASQ National Accreditation Board

# SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

## TE Connectivity - Empalme

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

## CALIBRATION & TESTING

Valid to: **May 3, 2019** Certificate Number: **ACT-1173**

**Mechanical Testing**

| Specific Tests and/or Properties Measured | Specification, Standard, Method, or Test Technique | Items, Materials or Product Tested | Key Equipment or Technology |
|---|---|---|---|
| Force<br>(0 to 200) lbf | Equipment Manual | Wiring Harnesses, Plastic and Metal Automotive Components | Force Gage |
| Mass<br>(0 to 4) kg | Equipment Manual | Plastic and Metal Automotive Components | Scales |
| Moisture Content<br>45 g<br>(50 to 200) ºC | 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/Testing**

| Specific Tests and/or Properties Measured | Specification, Standard, Method, or Test Technique | Items, Materials or Product Tested | Key Equipment or Technology |
|---|---|---|---|
| Dimensions<br>210 mm (X)<br>215 mm (Y)<br>100 mm (Z) | ASME Y14.5M, Engineering Drawing, Equipment Manual | Plastic and Metal Automotive Components | Vision Systems |
| Dimensions<br>Up to 50 mm | ASME Y14.5M, Engineering Drawing, Equipment Manual | Plastic and Metal Automotive Components | Digital Height Indicator |

**Dimensional Measurement/Testing**

| Specific Tests and/or Properties Measured | Specification, Standard, Method, or Test Technique | Items, Materials or Product Tested | Key Equipment or Technology |
|---|---|---|---|
| Dimensions<br>Up to 0.8 mm | ASME Y14.5M, Engineering Drawing, Equipment Manual | Plastic and Metal Automotive Components | Dial Test Indicator |
| Dimensions<br>Up to 200 mm | ASME Y14.5M, Engineering Drawing, Equipment Manual | Plastic and Metal Automotive Components | Calipers |
| Dimensions<br>Up to 25.4 mm | ASME Y14.5M, Engineering Drawing, Equipment Manual | Plastic and Metal Automotive Components | Micrometers |
| Dimensions<br>609 mm (X)<br>609 mm (Y)<br>457 mm (Z) | ASME Y14.5M, Engineering Drawing, Equipment Manual | Plastic and Metal Automotive Components | CMM |
| Dimensions<br>Up to 8 m | ASME Y14.5M, Engineering Drawing. | Wiring Harnesses Automotive Components | Steel Measuring Tapes |
| Dimensions<br>Up to 1 220 mm | ASME Y14.5M, Engineering Drawing. | Wiring Harnesses Automotive Components | Steel Rule |

**Length – Dimensional Metrology**

| Parameter / Equipment | Range | Expanded Uncertainty of Measurement (+/-)[1] | Reference Standard, Method and/or Equipment |
|---|---|---|---|
| Steel Measuring Tapes | Up to 8 m | 0.32 mm / 50 cm | Digital Scale<br>Work Instruction AEW001T-LB Tyco Spec 117-95 Calibration Steel Measuring Tapes. JIS B 7512 (1993) |
| Steel Rules | Up to 1 220 mm | 0.060 mm / 50 cm | Master Height Gage Digital Scale<br>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 | 36 µin | Mahr Repeatometer Precision Dial Indicator<br>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<br>Work Instruction AEW004T-LB, JIS B 7533 (1990), Tyco Spec 117-14 Dial Indicator, Electronic and |

| Parameter / Equipment | Range | Expanded Uncertainty of Measurement (+/-)[1] | Reference Standard, Method and/or Equipment |
|---|---|---|---|
| Calipers | Up to 200 mm | 0.023 mm | Gage Blocks<br>Ring Gages<br>Work Instruction AEW005T-LB, JIS B 7507 (1993), Tyco Spec 117-9 Caliper, Vernier, Dial and Digital |
| Micrometer | Up to 25.4 mm | 0.0016 mm | Gage Blocks<br>Grade 2<br>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<br>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<br>Gage Blocks<br>Work Instruction AEW007T-LB. JIS B 7184:1999 |
| Digital Height Indicator<br><br>(Travel-Type) | Up to 50 mm | 0.0021 mm | Gage Blocks<br>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 | 0.12 lb·f | Master Weights<br>Work Instruction AEW003T-LB, Tyco Spec 117-70 Force Gages |
| Scales<br>(0.01 g Resolution) | (0 to 4) kg | 0.45 g | Master Weights Class OIML M3 & ASTM 6<br>Work Instruction AEW013T-LB, NOM-010-SCFI-1994 |

Notes:

1. 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%.

2. L in uncertainties represents length in inches.
3. 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.
4. This scope is formatted as part of a single document including the Certificate of Accreditation No. ACT-1173.

# 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

# Section 18

# Part Submission Warrant

DaimlerChrysler Ford GM

# Part Submission Warrant

Part Name: SLV ASY-WIRE CONNECTOR - FEMALE
Cust. Part Number:
Shown on Drawing No.: DU5T-14489-LA
Org. Part Number: 2035363-7
Engineering Change Level: LA
Dated: 22-Dec-2010
Additional Engineering Changes: N / A
Dated: N / A
Safety and/or Government Regulation: ☐ Yes ☑ No
Purchase Order No.: N / A
Weight (kg): 0.0024
Checking Aid Number: N / A
Checking Aid Engineering Change Level: N / A
Dated: N / A

**ORGANIZATION MANUFACTURING INFORMATION**

TE Connectivity
Supplier Name & Supplier/Vendor Code

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

Empalme | Sonora | 85340 | México
City | Region | Postal Code | Country

**CUSTOMER SUBMITTAL INFORMATION**

Nursan Kablo Donanimlar
Customer Name/Division

Not provided by the customer
Buyer/Buyer Code

FORD
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: 271607375 / 2

Are polymeric parts identified with appropriate ISO marking codes? ☑ Yes ☐ No ☐ N/A

**REASON FOR SUBMISSION**

- ☑ Initial submission
- ☐ Engineering Change(s)
- ☐ Tooling: Transfer, Replacement, Refurbishment, or additional
- ☐ Correction of Discrepancy
- ☐ Tooling Inactive > than 1 year
- ☐ Change to Optional Construction or Material
- ☐ Sub-Supplier or Material Source Change
- ☐ Change in Part Processing
- ☐ Parts produced at Additional Location
- ☐ 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" - Explanation Required)
Mold / Cavity / Production Process: Assembly Process

**DECLARATION**

I affirm that the samples represented by this warrant are representative or our parts, which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm the 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: Production Rate is TE Property.
ePPAP # 58155

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

Organization Authorized Signature: Jesus Romero Date: 8-Jun-2018

Print Name: Jesus Romero Phone No.: +52 (622) 22 51236 Fax No.: N/A

Title: Quality Technician E-mail: jesus.romero@te.com

FOR CUSTOMER USE ONLY (IF APPLICABLE)

Part Warrant Disposition: ☐ Approved ☐ Rejected ☐ Other

Customer Signature: Date:

Print Name: Customer Tracking Number (optional):

# Section 18a

# Bulk Material Requirements

# Not Applicable