Table of Contents

PPAP Package for:

Nursan Otomotiv Ltd.
Customer Part Number: 1924275-3
(TE Connectivity Part Number): 1924275-3
13-Dec-2019

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.

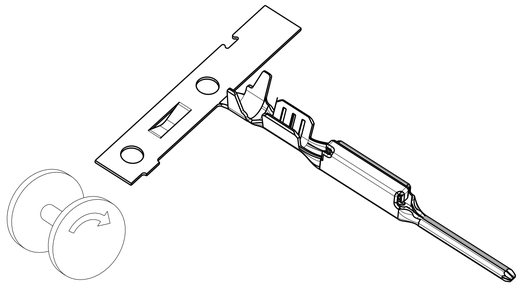
Section 1

Design Records

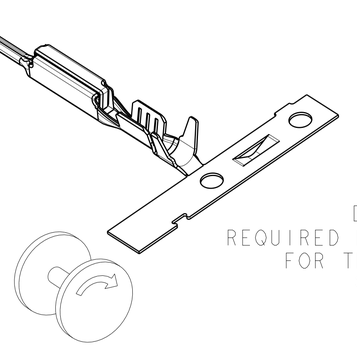
LOC	DIST
IN	00

REVISIONS

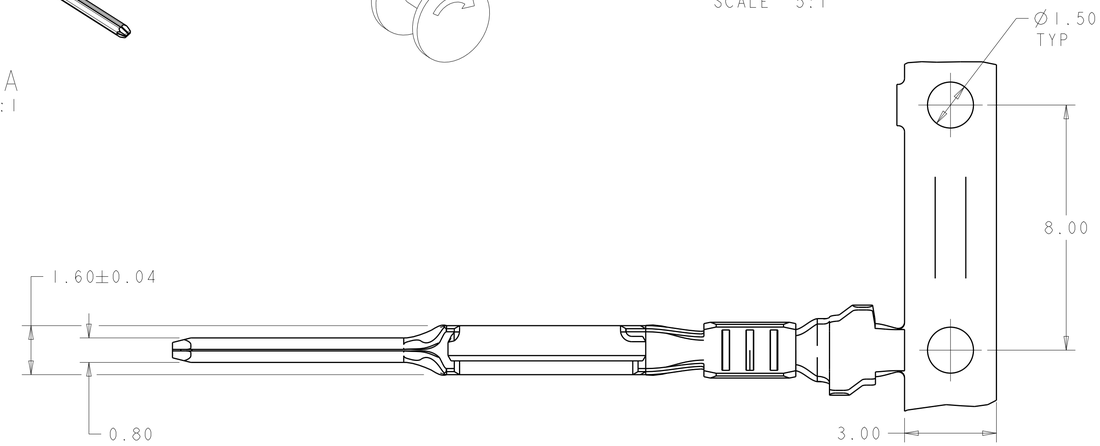
P	LTR	DESCRIPTION	DATE	DWN	APVD
	B3	REVISED PER ECO-11-01927I	21SEP2011	DLD	CJS
	B4	REVISED PER ECO-12-010824	12JUN2012	DLD	CJS
	B5	REVISED PER ECO-12-012285	08NOV2012	DLD	CJS
	B6	REVISED PER ECO-19-001554	31JAN2019	JMS	CS

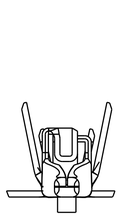


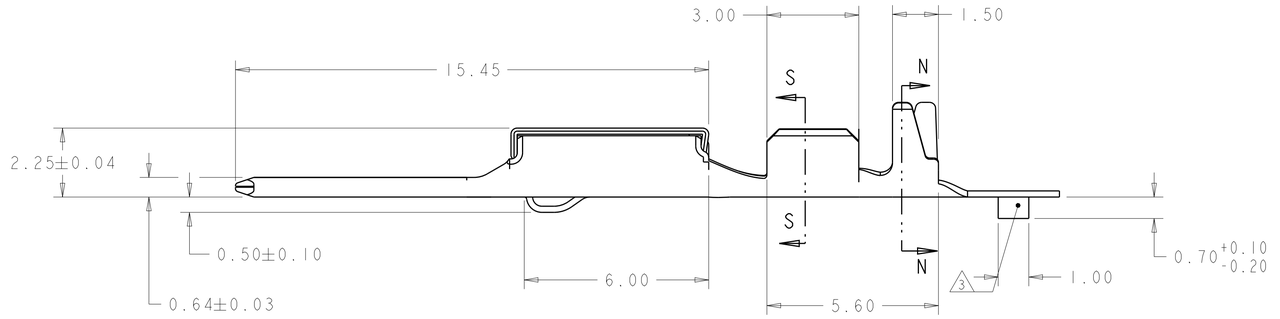
DETAIL A
SCALE 5:1

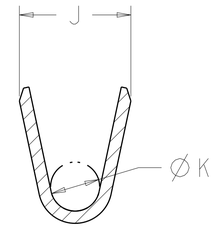


DETAIL B
REQUIRED REELING DIRECTION
FOR TE APPLICATORS
SCALE 5:1

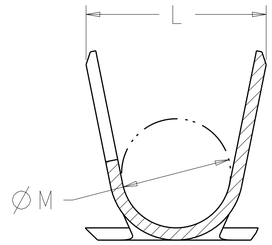








SECTION S-S
SCALE 20:1



SECTION N-N
SCALE 20:1

1. MATERIAL: BRASS
2. FINISH: PRE-PLATED WITH 0.80µm MIN TIN
3. MATERIAL ID FEATURE IN "DOWN" POSITION.
5. THIS DRAWING IS RESTRICTED TO FORD.

ISULATION DIAMETER	REELING	S	R	K	J	FINISH	WIRE SIZE	PART NUMBER
0.13mm² = 0.85-1.05; 0.35mm² = 1.10-1.40	DETAIL B	1.40	2.40	0.80	1.85	2	2X 0.13mm² OR 0.35mm²	1924275-8
0.85-1.05	DETAIL B	0.85	1.82	0.65	1.50	2	0.13mm²	1924275-7
0.13mm² = 0.85-1.05; 0.35mm² = 1.10-1.40	DETAIL A	1.40	2.40	0.80	1.85	2	2X 0.13mm² OR 0.35mm²	1924275-6
0.85-1.05	DETAIL A	0.85	1.82	0.65	1.50	2	0.13mm²	1924275-5
2.06 MAX	DETAIL B	1.78	2.94	1.00	1.96	2	18	1924275-4
1.5-1.85	DETAIL B	1.78	2.94	0.80	1.82	2	20-22	1924275-3
2.06 MAX	DETAIL A	1.78	2.94	1.00	1.96	2	18	1924275-2
1.5-1.85	DETAIL A	1.78	2.94	0.80	1.82	2	20-22	1924275-1

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±0.3
1 PLC ±0.3
2 PLC ±0.15
3 PLC ±-
4 PLC ±-
ANGLES ±1°

MATERIAL - - 1
FINISH - -

DWN H. MOLL 02OCT2008
CHK J. HALL 02OCT2008
APVD J. HALL 02OCT2008
PRODUCT SPEC -
APPLICATION SPEC -
WEIGHT -

TE Connectivity

NAME CONTACT, MALE, 0.64, GENERATION Y

SIZE	CAGE CODE	DRAWING NO	RESTRICTED TO
A1	00779	C-1924275	FORD

RESTRICTED CUSTOMER | SCALE 10:1 | SHEET 1 OF 1 | REV B6

4805 (3/11)

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

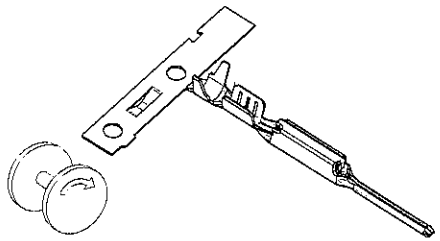
Measurement System Analysis

Not Applicable

Section 9

Dimensional Results

REVISIONS				
LTR	DESCRIPTION	DATE	DWN	APVD
B3	REVISED PER ECO-11-013273	29SEP2011	DLG	CJS
B4	REVISED PER ECO-12-010824	12JAN2012	DLG	CJS
B5	REVISED PER ECO-12-012285	20MAR2012	DLG	CJS
B6	REVISED PER ECO-19-001554	31JAN2019	JMC	CS



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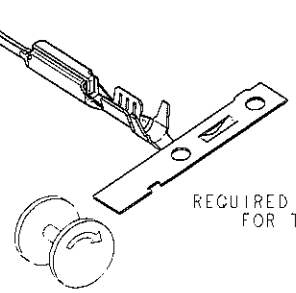
SCALE 5:1



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REQUIRED REELING DIRECTION
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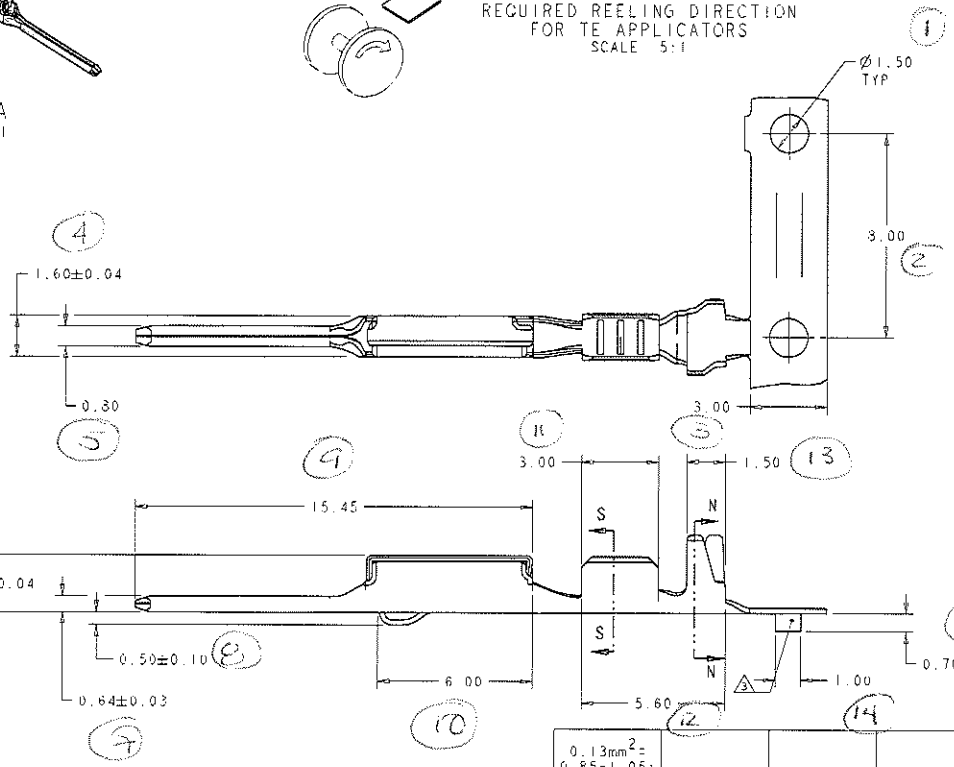
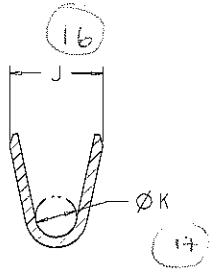
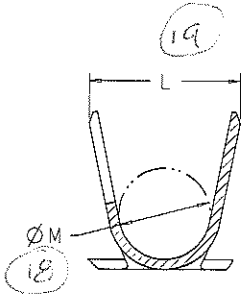




SECTION S-S
SCALE 20:1



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2.06 MAX	DETAIL B	1.78	2.94	1.00	1.96	2	18	1924275-4
1.5-1.35	DETAIL B	1.78	2.94	0.80	1.82	2	20-22	1924275-3
2.06 MAX	DETAIL A	1.78	2.94	1.00	1.96	2	18	1924275-2
1.5-1.85	DETAIL A	1.78	2.94	0.80	1.82	2	20-22	1924275-1

THIS DRAWING IS A CONTROLLED DOCUMENT

DRAWN: R. HOLL 020CT2006
CHK: J. HALL 020CT2006
APVD: J. HALL 020CT2006
PRODUCT SPEC: -
APPLICATION SPEC: -
WEIGHT: -

TE Connectivity

CONTACT, MALE, 0.64, GENERATION Y

SIZE A1 | CAGE CODE 00779 | DRAWING NO. C-1924275 | MATERIAL NO. FORD

RECTIFIED CUSTOMER | SCALE 10:1 | SHEET 1 OF 1 | REV B6

Production Part Approval Dimensional Test Results & Material

DAIMLERCHRYSLER Ford GM

ORGANIZATION: **TE Connectivity**
SUPPLIER / VENDOR CODE
INSPECTION FACILITY: **TE Connectivity**
Winston-Salem, NC

PART NUMBER: **1924275-1/-3**
(Ford p/n: 9U5T-14421-BA)
PART NAME: **Contact, Male, 0.64mm, Generation Y**
DESIGN RECORD CHANGE LEVEL: B6
ENGINEERING CHANGE DOCUMENTS:

ITEM	DIMENSION / SPECIFICATION	SPECIFICATION / LIMITS	TEST DATE	QTY. TESTED	ORGANIZATION MEASUREMENT RESULTS (DATA)				OK	NOT OK
					Out 1	Out 2				
1	1.50	0.15	4/9/2018	2	1.6090	1.6160			✓	
2	8.00	0.15	4/9/2018	2	8.0270	8.0270			✓	
3	3.00	0.15	4/9/2018	2	2.9250	2.9250			✓	
4	1.60	0.04	4/9/2018	2	1.6310	1.5670			✓	
5	0.80	0.15	4/9/2018	2	0.8180	0.8340			✓	
6	2.25	0.04	4/9/2018	2	2.2470	2.2340			✓	
7	0.64	0.03	4/9/2018	2	0.6540	0.6320			✓	
8	0.50	0.10	4/9/2018	2	0.5300	0.5140			✓	
9	15.45	0.15	4/9/2018	2	15.5670	15.5910			✓	
10	6.00	0.15	4/9/2018	2	6.0500	6.0850			✓	
11	3.00	0.15	4/9/2018	2	3.0190	3.0510			✓	
12	5.60	0.15	4/9/2018	2	5.5800	5.5900			✓	
13	1.50	0.15	4/9/2018	2	1.4470	1.4290			✓	
14	1.00	0.15	4/9/2018	2	1.0310	1.0310			✓	
15	0.70	0.10	4/9/2018	2	0.5750	0.5750			✓	
16	1.85	0.15	4/9/2018	2	1.8910	1.8770			✓	
17	0.80	0.15	4/9/2018	2	0.8390	0.8590			✓	
18	1.40	0.15	4/9/2018	2	1.8370	1.8770			✓	
19	2.40	0.15	4/9/2018	2	3.0070	3.0830			✓	
	Material									
	Copper				Copper				✓	

Blanket statements of conformance are unacceptable for any test results.

SIGNATURE	TITLE	DATE
Anilu Godoy	PPAP Manager	9/30/2019

Note: PPAP Based on Latest dimensional Report (B5)

Section 10

Material, Performance Test Results

SUMCO LLC

An ISO Registered Company

1351 S. Girls School Road
Indianapolis, IN 46231
Tel: 317-241-7600
DUNS: 83-296-2588

Date Tested	Job Number		Order Number
8/20/2019	50251-0000	ABI00950	41-77797

Size	Alloy	Customer PN	Customer PO#
.0078 X 1.180	260	8-702482-1	1400-439549

015191 TE CONNECTIVITY GREENSBORO NC

PROPERTIES AND TESTING

Trace#	Plating Material		Units	Plating Specs Min	Plating Specs Max	Actual Data Min	Actual Data Max	Pb PPM in Deposit
420199 1 10	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	53	59	35.12
420199 1 13	Copper	0	µin	40		50	60	
	Reflow Tin	0	µin	32	59	47	48	35.12
420199 1 14	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	42	42	35.12
420199 1 15	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	54	55	35.12
420199 1 16	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	45	47	35.12
420199 1 17	Copper	0	µin	40		40	50	
	Reflow Tin	0	µin	32	59	39	40	35.12

PROPERTIES AND TESTING

Trace#	Plating Material		Units	Plating Specs Min	Plating Specs Max	Actual Data Min	Actual Data Max	Pb PPM in Deposit
420199 1 18	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	54	59	35.12
420199 1 19	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	49	55	35.12
420199 1 2	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	48	48	35.12
420199 1 20	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	55	58	35.12
420199 1 21	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	34	40	35.12
420199 1 3	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	57	58	35.12
420199 1 4	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	42	47	35.12
420199 1 5	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	51	56	35.12

PROPERTIES AND TESTING

Trace#	Plating Material		Units	Plating Specs Min	Plating Specs Max	Actual Data Min	Actual Data Max	Pb PPM in Deposit
420199 1 6	Copper	0	µin	40		50	50	
	Reflow Tin	0	µin	32	59	53	57	35.12
420199 1 7	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	45	47	35.12
420702 2 15	Copper	0	µin	40		40	41	
	Reflow Tin	0	µin	32	59	32	41	35.12
420702 2 17	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	58	58	35.12
420702 2 19	Copper	0	µin	40		40	50	
	Reflow Tin	0	µin	32	59	43	48	35.12
420702 2 21	Copper	0	µin	40		40	40	
	Reflow Tin	0	µin	32	59	36	41	35.12

1 Plating thickness per ASTM B568

2 Solderability Test per ASTM B678 - Pass/Fail for those products requiring solderability testing.

3 Adhesion Test per ASTM B571 - Performed on all plated product and rejected if test failed.

We hereby certify that the material described in this report has been tested and the results are shown above.

Quality Manager: Amy Schultz

Section 11

Initial Process Studies

There are no requirements for process capability data listed on the applicable Tyco Electronics customer drawing.

No agreement for providing process capability study information, to customer drawing requirements has been agreed to by Tyco Electronics.

Process capability study data, to a Tyco Electronics customer drawing dimension is not currently available from the manufacturing facility and as such will not be provided with this PPAP submission.

Section 12

Qualified Laboratory Documentation

bsi.

By Royal Charter

Certificate of Registration

QUALITY MANAGEMENT SYSTEM - IATF 16949:2016

This is to certify that:

TE Connectivity
Global Automotive Division
Americas North
719 Pegg Road
Greensboro
North Carolina
27409
USA

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: 514458-007
IATF Number: 0338830

...making excellence a habit.™

Certification Date: 2018-10-18 Latest Issue: 2018-10-18 Expiry Date: 2021-10-17

Location	Registered Activities
TE Connectivity Global Automotive Division Americas North 719 Pegg Road Greensboro North Carolina 27409 USA	Design and manufacture of electrical interconnecting devices. Including the following remote support functions: TE Connectivity Global Automotive Division Americas North 3800 Reidsville Road Winston-Salem North Carolina 27102 USA Supplier management, Sales, Testing, Product design TE Connectivity Global Automotive Division Americas North 20 Esna Park Drive Markham Ontario L3R 1E1 Canada Testing, Product design TE Connectivity Global Automotive Division Americas North 1901 Fulling Mill Road Middletown Pennsylvania 17057 USA Customer service, Testing, Product design TE Connectivity Global Automotive Division Americas North 900 Wilshire Boulevard Suite 150 Troy Michigan 48084 USA Product design

BSI Certificate Number: 514458-007

IATF Number: 0338830

Certification Date: 2018-10-18 Latest Issue: 2018-10-18 Expiry Date: 2021-10-17

Location	Registered Activities
	TE Connectivity North Carolina Distribution Center 8000 Piedmont Triad Parkway Greensboro North Carolina 27409 USA Warehousing TE Connectivity Global Automotive Division Americas North 2100 Paxton Street Harrisburg Pennsylvania 17111 USA Testing TE Connectivity 3900 Reidsville Road Winston Salem North Carolina 27101 USA Testing TE Connectivity 3920 Reidsville Road Winston Salem North Carolina 27101 USA Testing Including the following extended manufacturing sites: TE Connectivity Global Automotive Division Americas North 233 Burgess Road Greensboro North Carolina 27409 USA Design and manufacture of electrical interconnecting devices

BSI Certificate Number: 514458-007

IATF Number: 0338830

Certification Date: 2018-10-18 Latest Issue: 2018-10-18 Expiry Date: 2021-10-17

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

1. Company and Product Name

1.1 Supplier Data

Name [ID]:	**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:	**-**
- Fax No.:	**-**
- E-Mail Address:	**IMDS@te.com**

1.2 Product Identification

Part/Item No.:	**1924275-3**
Description:	**Contact, Male, Generation Y, 0.64**
Report No.:	**-**
Date of Report:	**-**
Purchase Order No.:	**-**
Bill of Delivery No.:	**-**
Preliminary MDS:	**No**
IMDS ID / Version:	**86857300 / 7**
Node ID:	**763885081**
MDS Status (Change Date):	**Internally released (08/20/2018)**

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.:	**1924275-3**	Report No.:	**-**
Description:	**Contact, Male, Generation Y, 0.64**	IMDS ID / Version:	**86857300 / 7**
		Node ID:	**763885081**

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]
1	Contact, Male, Generation Y, 0.64	1924275-3	86857300 / 7		0.1504				
├2	CuZn30		10612731 / 5		0.1497			3.2	No
├3	Copper	7440-50-8				70	69 - 71	D	
├3	Aluminium (metal)	7429-90-5				0.01	0 - 0.02		

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]
3	Iron	7439-89-6				0.025	0 - 0.05		
3	Nickel	7440-02-0				0.15	0 - 0.3	D	Not applicable [34]
3	Lead	7439-92-1				0.025	0 - 0.05	D / P / SVHC	Concentration within acceptable GADSL limits [44]
3	Tin	7440-31-5				0.05	0 - 0.1		
3	Misc., not to declare	system				0.05	0 - 0.1		
3	Zinc (metal)	7440-66-6				29.69			
2	e-plate Sn (electrodeposited Tin Coatings, bright and matt)		756885 / 5		0.0003			4.2	No
3	Carbon	7440-44-0				0.505	0.01 - 1		
3	Sulphur	7704-34-9				0.02	0 - 0.04		
3	Lead	7439-92-1				0.015	0 - 0.03	D / P / SVHC	Concentration within acceptable GADSL limits [44]
3	Tin	7440-31-5				99.46			
2	e-plate Cu (electrodeposited Copper Coatings)		736943 / 5		0.0004			3.1	No
3	Carbon	7440-44-0				0.005	0 - 0.01		
3	Sulphur	7704-34-9				0.0025	0 - 0.005		
3	Phosphorus	7723-14-0				0.03	0 - 0.06		
3	Copper	7440-50-8				99.9625		D	

This is an uncontrolled copy of a document created by IMDS. End of the report.

Section 18

Part Submission Warrant

TE Connectivity

PPAP North America Team

Part Submission Warrant

EPPAP:

Part Name: CONTACT, MALE, 0.64, GENERATION Y | Cust. Part Number: 1924275-3

Shown on Drawing Number: C-1924275 | Org.Part Number: 1924275-3

Engineering Change Level: B6 | Dated: 31/Jan/2019

Additional Engineering Changes: Not applicable | Dated: Not applicable

Safety and/or Government Regulation: ☐ Yes ☑ No | Purchase Order No.: N/A | Weight (kg): 0.0001

Checking Aid Number: Not applicable | Checking Aid Engineering Change Level: Not applicable | Dated: Not applicable

ORGANIZATION MANUFACTURING INFORMATION

TE Connectivity
Organization Name and Supplier Code

233 Burgess Road
Street Address

Greensboro	NC	27409	USA
City	Region	Postal Code	Country

CUSTOMER SUBMITTAL INFORMATION

Nursan Otomotiv Ltd.
Customer Name/Division

-Not Provided
Buyer/Buyer Code

Various
Application

MATERIALS REPORTING

Has customer-required Substance of Concern information been reported Submitted by IMDS or other customer format: ☑ Yes ☐ No ☐ NA

IMDS Company Id: 86857300 / 7

Are polymeric parts identified with appropriate ISO marking codes? ☐ Yes ☐ No ☑ NA

REASON FOR SUBMISSION (Check at least one)

- ☑ 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 measurement ☑ 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: Stamping 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 the production rate of proprietary / hours I also certify that documented evidence of such compliance is on file and is available for review. I have noted any deviations from this declaration below.

EXPLANATION/COMMENTS

Production Rate is TE Proprietary.

Is each Customer Tool properly tagged and numbered? ☐ Yes ☐ No ☑ NA

Organization Authorized Signature: Pablo Guillermo Jimenez | Date: 12/13/2019

Print Name: Pablo Guillermo Jimenez | Phone No.: n/a | Fax: n/a

Title: Quality Technician | Email: pablo.jimenez@te.com

FOR CUSTOMER USE ONLY (IF APPLICABLE)

PPAP Warrant Disposition : ☐ Approved ☐ Rejected ☐ Other

Customer Signature | Date

Print Name | Customer Tracking Number (optional)

Section 18a

Bulk Material Requirements

Not Applicable