



Part Name PLUG ASSEMBLY, 30 POSITION, (26X 0.64, 4X Cust. Part Number 1924900-1  
 Shown on Drawing Number C-2386198 Org. Part Number 1924900-1  
 Engineering Change Level A2 Dated 19/12/2019  
 Additional Engineering Changes N/A Dated N/A  
 Safety and/or Government Regulation  Yes  No Purchase Order No. N/A Weight (kg) 0.01249g  
 Checking Aid Number N/A Checking Aid Engineering Change Level N/A Dated N/A

ORGANIZATION MANUFACTURING INFORMATION

CUSTOMER SUBMITTAL INFORMATION

TE Hermosillo Automotive /588115092  
 Organization Name and Supplier Code  
Carretera Int, KM 1969, Guadalajara-Nogales Km 2  
 Street Address  
Empalme n/a 85340 Mexico  
 City Region Postal Code Country

Nursan Otomotiv Ltd.  
 Customer Name/Division  
N/A  
 Buyer/Buyer Code  
All Models  
 Application

MATERIALS REPORTING

Has customer-required Substance of Concern information been reported  Yes  No  n/a  
 Submitted by IMDS or other customer format 118908175 / 5

Are polymeric parts identified with appropriate ISO marking codes?  Yes  No  n/a

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 Assembly

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 / 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

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

Organization Authorized Signature Jorge Passareiro Date 19/01/2023

Print Name Jorge Passareiro Phone No. (+351)266248624 Fax n/a

Title Quality Engineer Email jorge.passareiro@te.com

FOR CUSTOMER USE ONLY (IF APPLICABLE)

PPAP Warrant Disposition :  Approved  Rejected  Other

Customer Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_ Customer Tracking Number (optional) \_\_\_\_\_



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: 1924900-1
Supplier/Vendor Code: N/A	Part Name: PLUG ASSY 30 POSN (26X 0.64, 4X 1.50) HYBRID UNSEALED
INSPECTION FACILITY: TE Connectivity Empalme Metrology lab	Design Record Change Level: DWG: C - 1924900 REV: A1
	Engineering Change Documents: N/A
	# Folio: 46053 Page <u>1</u> of <u>2</u>

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	18.40	REFERENCE	mm.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2	54.45	REFERENCE	mm.	54.373	54.384	54.386	54.369	54.388	54.370	✓		LMMC-010
3	2.54	REFERENCE	mm.	2.542	2.546	2.544	2.542	2.538	2.541	✓		LMMC-010
	2.54	REFERENCE	mm.	2.539	2.545	2.543	2.543	2.541	2.542	✓		
	2.54	REFERENCE	mm.	2.546	2.542	2.540	2.545	2.543	2.540	✓		
	2.54	REFERENCE	mm.	2.539	2.544	2.539	2.543	2.542	2.540	✓		
	2.54	REFERENCE	mm.	2.538	2.546	2.541	2.541	2.544	2.539	✓		
	2.54	REFERENCE	mm.	2.542	2.541	2.538	2.543	2.540	2.544	✓		
	2.54	REFERENCE	mm.	2.544	2.546	2.538	2.542	2.538	2.541	✓		
	2.54	REFERENCE	mm.	2.541	2.546	2.536	2.540	2.537	2.539	✓		
	2.54	REFERENCE	mm.	2.546	2.538	2.539	2.541	2.546	2.536	✓		
	2.54	REFERENCE	mm.	2.539	2.542	2.541	2.543	2.541	2.544	✓		
	2.54	REFERENCE	mm.	2.539	2.544	2.542	2.540	2.542	2.541	✓		
	2.54	REFERENCE	mm.	2.541	2.539	2.544	2.539	2.540	2.538	✓		
	2.54	REFERENCE	mm.	2.546	2.540	2.540	2.538	2.539	2.539	✓		
4	3.50	REFERENCE	mm.	3.512	3.510	3.506	3.512	3.508	3.506	✓		LMMC-010
	3.50	REFERENCE	mm.	3.508	3.515	3.521	3.516	3.510	3.510	✓		
5	2.54	REFERENCE	mm.	2.558	2.570	2.572	2.566	2.576	2.575	✓		LMMC-010
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	2.54	REFERENCE	mm.	2.549	2.546	2.548	2.552	2.546	2.551	✓		
	2.54	REFERENCE	mm.	2.542	2.549	2.547	2.544	2.545	2.545	✓		
	2.54	REFERENCE	mm.	2.547	2.546	2.546	2.546	2.545	2.542	✓		
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	2.54	REFERENCE	mm.	2.553	2.542	2.532	2.530	2.548	2.547	✓		

March 2006 CFG-1003

AEF004J-EG Rev: J

SIGNATURE Fabiola Agruel	TITLE Metrology Chief	DATE August 6, 2019
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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.

ACT-1173

Organization: TE Connectivity	Part Number: 1924900-1
Supplier/Vendor Code: N/A	Part Name: PLUG ASSY 30 POSN (26X 0.64, 4X 1.50) HYBRID UNSEALED
INSPECTION FACILITY: TE Connectivity Empalme Metrology Lab	Design Record Change Level: DWG: C - 1924900 REV: A1
	Engineering Change Documents: N/A
	# Folio: 46053 Page <u>2</u> of <u>2</u>

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			
	2.54	REFERENCE		mm.	2.547	2.541	2.544	2.555	2.548	2.553	✓		
	2.54	REFERENCE		mm.	2.554	2.546	2.547	2.545	2.544	2.548	✓		
	2.54	REFERENCE		mm.	2.547	2.554	2.556	2.550	2.556	2.548	✓		
	2.54	REFERENCE		mm.	2.549	2.537	2.538	2.542	2.540	2.545	✓		
	2.54	REFERENCE		mm.	2.553	2.554	2.544	2.545	2.552	2.551	✓		
	2.54	REFERENCE		mm.	2.540	2.544	2.543	2.533	2.540	2.520	✓		
	2.54	REFERENCE		mm.	2.557	2.565	2.564	2.577	2.538	2.579	✓		
6	27.24	REFERENCE		mm.	27.273	27.249	27.266	27.258	27.266	27.281	✓		LMMC-010
7	32.13	0.70	0.30	mm.	32.061	32.091	32.018	32.124	32.118	32.123	✓		LMMC-010
8	15.00	REFERENCE		mm.	15.031	15.063	15.063	15.065	15.069	15.062	✓		LMMC-010
9	13.00	REFERENCE		mm.	13.000	12.996	12.999	13.003	13.018	13.005	✓		LMMC-010
10	HOUSING QTY: 1			visual	OK	OK	OK	OK	OK	OK	✓		
11	CPA OPTIONAL (SEE TABLE)			visual	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
12	TPA QTY: 1			visual	OK	OK	OK	OK	OK	OK	✓		
NOTES:													

1	MATERIAL: PLUG HOUSING: NYLON, COLOR - BLACK TPA: NYLON, COLOR - NATURAL CPA: PBT, COLOR - RED	NOTED PER APQP TEAM	✓	
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2	TERMINALS SOLD SEPARATELY	OK OK OK OK OK OK	✓	
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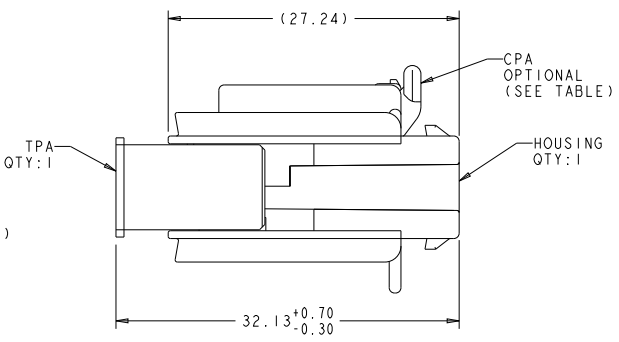
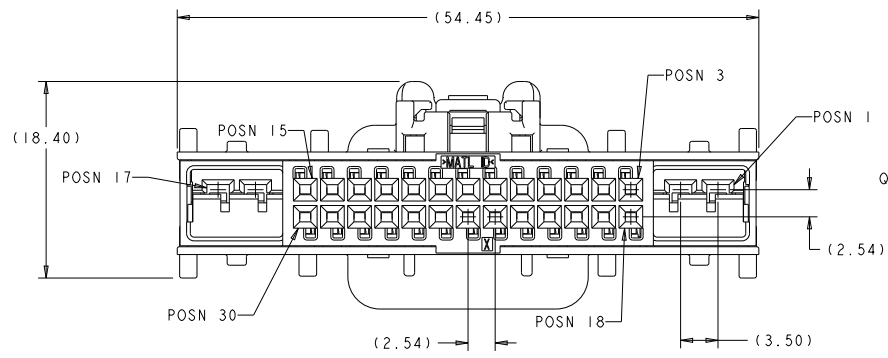
3	TPA SHOWN IN PRE - SEATED POSITION	OK OK OK OK OK OK	✓	
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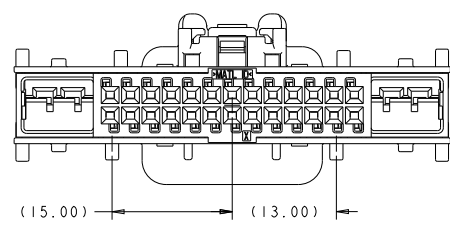
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		TOTAL # OF FEATURES		264
		LESS BASIC DIMENSIONS		0
		LESS REFERENCE DIMENSIONS		258
		REPORTED DIMENSIONS		6
		# DIMENSIONS IN TOLERANCE		6
		# DIMENSIONS OUT OF TOLERANCE		0
		% DIMENSION IN TOLERANCE		100.00 %
		% DIMENSION OUT OF TOLERANCE		0.00 %

March 2006 CFG-1003	SIGNATURE Fabiola Agruel	TITLE Metrology Chief	DATE August 6, 2019
AEF004J-EG Rev: J			

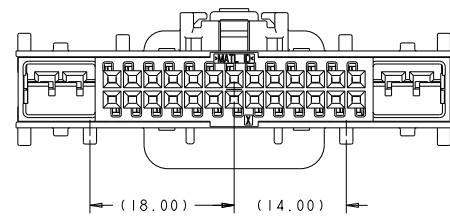
REVISIONS				
REV	DATE	BY	CHKD	APPD
A	29MAR2018	HM	DF	
A1	15JUN2011	DLD	CJS	
A2	19DEC2019	JMS	CS	



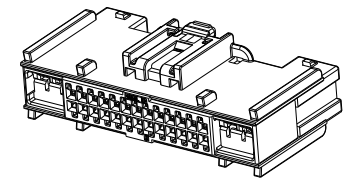
- THIS DRAWING IS RESTRICTED TO FORD
- MATERIAL  
 △ PLUG HOUSING: NYLON, COLOR - BLACK  
 TPA: NYLON, COLOR - NATURAL  
 CPA: PBT, COLOR - RED
- TERMINALS SOLD SEPARATELY
- TPA SHOWN IN PRE-SEATED POSITION. DURING SHIPPING TPA'S MAY BECOME SEATED OR PARTIALLY SEATED. REFERENCE INSTRUCTION SHEET 408-10372 TO REPOSITION
- 30N MAX TERMINAL PUSH THROUGH WITHOUT BUCKLING
- 40N MIN UNMATED CPA PRESTAGE TO LOCK
- 40N MIN CPA REMOVAL FORCE
- △ THIS PRODUCT HAS NOT COMPLETED VALIDATION TESTING
- △ PRELIMINARY - NOT FOR PRODUCTION



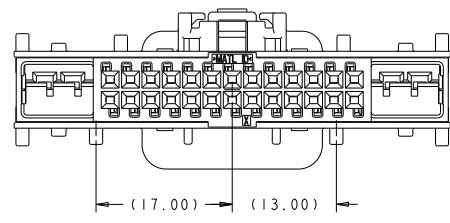
KEYING CODE "A"  
SCALE 3:1



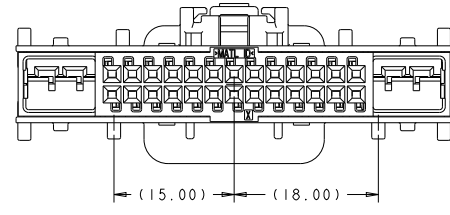
KEYING CODE "B"  
SCALE 3:1



REF VIEW  
SCALE 2:1



KEYING CODE "C"  
SCALE 3:1



KEYING CODE "D"  
SCALE 3:1

SUPPLIED	KEYING CODE	PART NUMBER
SUPPLIED	KEYING CODE "D"	1924900-8
SUPPLIED	KEYING CODE "C"	1924900-7
SUPPLIED	KEYING CODE "B"	1924900-6
SUPPLIED	KEYING CODE "A"	1924900-5
NOT SUPPLIED	KEYING CODE "D"	1924900-4
NOT SUPPLIED	KEYING CODE "C"	1924900-3
NOT SUPPLIED	KEYING CODE "B"	1924900-2
NOT SUPPLIED	KEYING CODE "A"	1924900-1
CPA	KEYING CODE	PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT. **TE** TE Connectivity

DATE: 25FEB2008  
 CHK: MOLL  
 APP: FRY  
 DATE: 12MAR2008  
 APP: MIER  
 DATE: 12MAR2008

DIMENSIONS: mm

TERMINALS: 0 PLC, 1 PLC, 2 PLC, 3 PLC, 4 PLC, 5 PLC, 6 PLC, 7 PLC, 8 PLC, 9 PLC, 10 PLC, 11 PLC, 12 PLC, 13 PLC, 14 PLC, 15 PLC, 16 PLC, 17 PLC, 18 PLC, 19 PLC, 20 PLC, 21 PLC, 22 PLC, 23 PLC, 24 PLC, 25 PLC, 26 PLC, 27 PLC, 28 PLC, 29 PLC, 30 PLC

APPLICATION SPEC: 408-10372

SIZE: A | 00779 | 1924900 | DRAWING NO

RESTRICTED TO: FORD

RESTRICTED CUSTOMER

SCALE: 2:1 SHEET 1 OF 1 REV A2



# ENGINEERING SAMPLE EVALUATION REPORT

PART NAME: SLV WIR CONN FEM (30p Hybrid Female Connector Assembly)		PART NO.: 9U5T-14489-ZA & DU5T-14489-HHA (TE p/n: 1924900-1 & -4)	
		CHANGE TYPE:	CHECK APPLICABLE:
SUBMITTED BY: Chris Schmid	CURRENT MANUFACTURING SITE: Empalme, MX	TOOL MOVE:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
	FUTURE MANUFACTURING SITE: Empalme, MX	PROCESS CHANGE:	
SUPPLIER: TE CONNECTIVITY		MATERIAL/MATERIAL SUPPLIER CHANGE:	
		CAPACITY TOOL:	
		DATE SUBMITTED: 3/24/2021	MADE TO DRAWING DATED: 20171128

**CHANGE DETAILS:**

Bringing on a capacity mold for the housing component of the 30p hybrid female connector assembly.

APPROVED: <input checked="" type="checkbox"/>	PRODUCT ENGINEERING SIGNATURE*: 	DATE: Mar 24, 2021
REJECTED: <input type="checkbox"/>		

IDENTIFY WITH  REMARKS AFFECTING PRODUCT ENGINEERING CRITICAL REQUIREMENTS

\*By signing this document, you state that you have verified the physical part/s with the drawing/s and agree with key dimensional data, notes and appearance.



# Design Verification Plan and Report

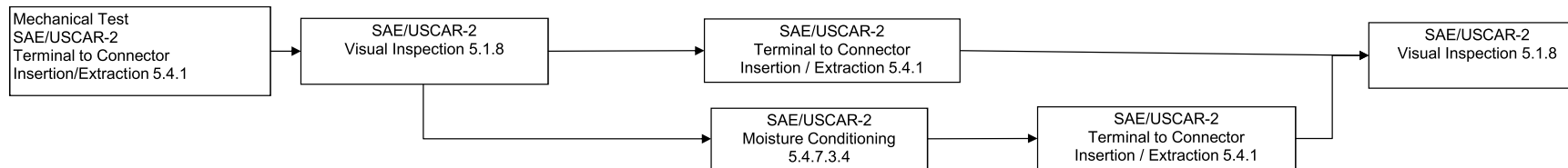
Mar 24, 2021

page 1 of 5

System: CPSC 18.01.07 Connectors		Ford part number (s): 9U5T-14489-ZA & DU5T-14489-HHA 30n Unsealed Hybrid Female Connector Assembly		Model Year and Program:		Ford Design Engineer: <i>[Signature]</i>	
Temperature Class	T2	T1, T2, T3, T4 T5	Supplier: TE Connectivity		Ford Design Engineer Approval		
Vibration Class	V1	V1, V2,V3, V4, V5	Reason for Validation:	Capacity Tool	Part Level:	PV - production	Plan:
Sealing Class	S1	S1, S2, S3			Report:		

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Timing		Remarks
				Required	Tested	Sched.	Actual	

**Group D -Mechanical Test Flow Chart Terminal to Connector Insertion/Extraction 5.9.5**



D-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass			PV	Determined thru Table 5.4.1.3.1		
D-2. Insertion Force USCAR 2, 5.4.1.3 A	Maximum Insertion Force for a terminal is 30 N (see procedure notes in Para. 5.4.1.3 A6)	Max	Min	Ave	PV	10	0.64 = 26 1.5 = 16	One sample from each of the four housings cavities used. 0.64mm: All 26 circuits checked randomly spread across the 4 samples. 1.5mm: All 4 circuits tested on all 4 samples.
	0.64mm on 20awg wire 1.5mm on 18awg wire	4.67N 5.98N	1.93N 1.92N	2.93N 2.65N				
D-3a. Extraction Force - With Primary Lock SAE/USCAR-2, 5.4.1.3 B	Acceptance Criteria found in USCAR 2 Table 5.4.1.4	Max	Min	Ave	PV	10	0.64 = 26 1.5 = 16	One sample from each of the four housings cavities used. 0.64mm: All 26 circuits checked randomly spread across the 4 samples. 1.5mm: All 4 circuits tested on all 4 samples.
	0.64mm on 20awg wire: 30N Min 1.5mm on 18awg wire: 45N Min	100.21N 135.58N	74.04N 128.80N	91.79N 133.49N				
D-4. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass			PV	10	0.64 = 26 1.5 = 16	

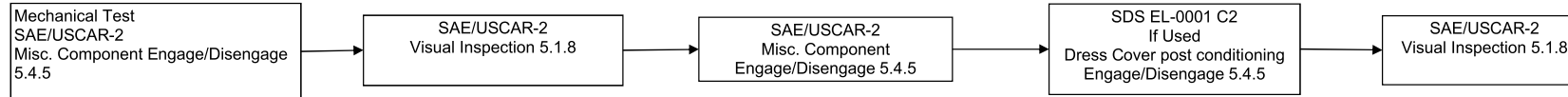


# Design Verification Plan and Report

System: CPSC 18.01.07 Connectors		Ford part number (s): 9U5T-14489-ZA & DU5T-14489-HHA 30n Unsealed Hybrid Female Connector Assembly		Model Year and Program:		Ford Design Engineer:	
Temperature Class	T2	T1, T2, T3, T4 T5	Supplier: TE Connectivity		Ford Design Engineer Approval		
Vibration Class	V1	V1, V2,V3, V4, V5	Reason for Validation:	Capacity Tool	Part Level:	PV - production	Plan:
Sealing Class	S1	S1, S2, S3			Report:		

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Timing		Remarks
				Required	Tested	Sched.	Actual	

**Group E -Mechanical Test Misc. Component Engage/Disengage 5.9.5**



E-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass			PV	10	12		3 samples from each mold cavity for each test group.		
E-2. Misc. Component Engage/Disengage 5.4.5	Acceptance Criteria found in USCAR 2 Table 5.4.5.1.4	Max	Min	Ave	PV	10	12				
E-2.i TPA/PLR Engage (Pre-set to Lock) without terminals SAE/USCAR-2, 5.4.5.2.3 A	15N Min w/o terminals	62.67N	26.47N	45.31N							
E-2.j TPA/PLR Engage (Pre-set to Lock) with terminals SAE/USCAR-2, 5.4.5.2.3 A	60N Max with terminals installed	59.52N	34.96N	44.00N							
E-2.k TPA/PLR Disengage (Lock to preset) with terminals SAE/USCAR-2, 5.4.5.2.3 B	60N Max with terminals installed	53.27N	22.83N	36.30N							Design of this connector is to use a tool to lift each side of the TPA fingers over the retention bump. Not straight pull.
E-2.m TPA/PLR Disengage (Remove) SAE/USCAR-2, 5.4.5.2.3 B	25N Min	51.60N	35.07N	44.64N							
E-5. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass			PV	10	12				

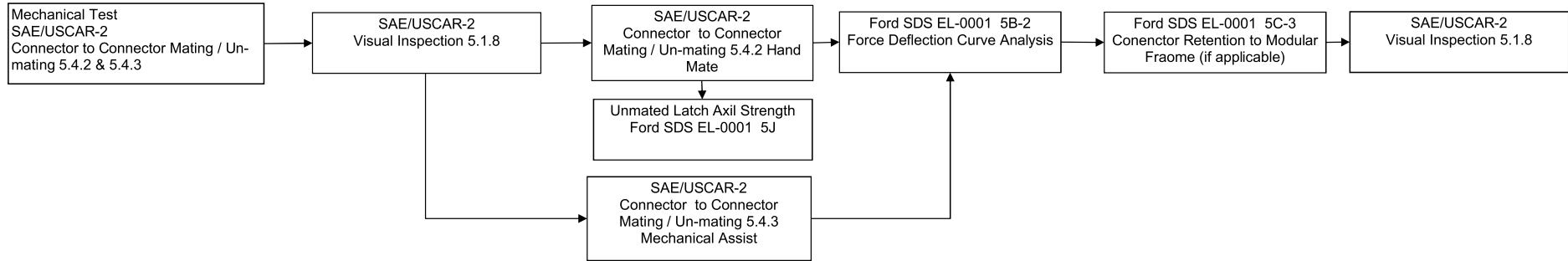


# Design Verification Plan and Report

System: CPSC 18.01.07 Connectors			Ford part number (s): 9U5T-14489-ZA & DU5T-14489-HHA 30n Unsealed Hybrid Female Connector Assembly		Model Year and Program:		Ford Design Engineer:	
Temperature Class	T2	T1, T2, T3, T4 T5	Supplier: TE Connectivity		Ford Design Engineer Approval			
Vibration Class	V1	V1, V2,V3, V4, V5	Reason for Validation:	Capacity Tool	Part Level:	PV - production		Plan:
Sealing Class	S1	S1, S2, S3					Report:	

Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Timing		Remarks
				Required	Tested	Sched.	Actual	

**Group G -Mechanical Test Connector to Connector Mating / Un-mating 5.9.5**



G-1. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass			PV				
Connector to Connector Mating / Un-mating - Hand mated USCAR-2, 5.4.2	See Below	Max	Min	Ave					
G-2.a) Connector-to Connector Mating Force (Hand Mated) USCAR-2, 5.4.2.3 A	Mating (engage) force must meet 75N Max and/or SAE/USCAR-25 USCAR-2, 5.4.2.4.1	78.56N	63.85N	69.16N	PV	15			Fully loaded with terminals. Acceptable per Ford Force Test Reliability spreadsheet. See attached document.
G-2.b) Connector-to Connector w/primary lock engaged- Un-mating Force (Hand Mated) USCAR-2, 5.4.2.3 B	110N or greater USCAR-2, 5.4.2.4.2	287.03N	147.90N	219.55N	PV	5			New samples with no terminals installed per USCAR-2, 5.4.2.3.B.2
G-2.c) Lock Deflection (Hand Mate) USCAR-2, 5.4.2.3 C1	51N or less USCAR-2, 5.4.2.4.4	7.90N	7.33N	7.64N		5			Use 5 samples from G-2.a above.





## Design Verification Plan and Report

System: CPSC 18.01.07 Connectors		Ford part number (s): 9U5T-14489-ZA & DU5T-14489-HHA 30n Unsealed Hybrid Female Connector Assembly		Model Year and Program:		Ford Design Engineer:			
Temperature Class	T2	T1, T2, T3, T4 T5	Supplier: TE Connectivity		Ford Design Engineer Approval				
Vibration Class	V1	V1, V2,V3, V4, V5	Reason for Validation:	Capacity Tool	Part Level:	PV - production	Plan:		
Sealing Class	S1	S1, S2, S3			Report:				
Test Name/Source	Acceptance Criteria	Test Results			Design Level Tested	Sample Size		Timing	
						Required	Tested	Sched.	Actual
G-2.d) Connector-to Connector Un-mating Force w/primary lock disengaged (Hand Mated) USCAR-2, 5.4.2.3 C1	75N or less USCAR-2, 5.4.2.4.3	71.64N	56.31N	64.52N		5			Use 5 samples from G-2.a above.
G-5. Visual Inspection - SAE/USCAR-2 5.1.8 To document the physical appearance of test samples.	The connectors assemblies must not show , with the aid of 10X magnification, any evidence of deterioration, cracks, deformities, etc., that could affect their functionality or distort their appearance. Connector locking mechanism must function without breaking	Pass			PV				

### Test Part Inventory Page

	Male Connector Test	Female Connector Test
<b>Terminal Test Part Numbers</b>		TE Generation Y 0.64: 1-1456574-3 Molex 1.5mm: 33012-2004
<b>Seal Test Part Numbers</b>		N/A
<b>Clip/Cover etc. Test Part Numbers</b>		N/A
<b>Mating Device Used Part Numbers</b>		9U5T-14A459-UA (TE 1924903-1)



## Design Verification Plan and Report

System: CPSC 18.01.07 Connectors		Ford part number (s): 9U5T-14489-ZA & DU5T-14489-HHA 30p Unsealed Hybrid Female Connector Assembly		Model Year and Program:		Ford Design Engineer:		
Temperature Class	T2	T1, T2, T3, T4 T5	Supplier: TE Connectivity		Ford Design Engineer Approval			
Vibration Class	V1	V1, V2,V3, V4, V5	Reason for Validation:	Capacity Tool	Part Level:	PV - production	Plan:	
Sealing Class	S1	S1, S2, S3			Report:			
Test Name/Source	Acceptance Criteria	Test Results	Design Level Tested	Sample Size		Timing		Remarks
				Required	Tested	Sched.	Actual	
<b>Terminal Test Part Numbers</b>				TE Generation Y 0.64: 1-1456574-3 Molex 1.5mm: 33012-2004				
<b>Connector Test Part Numbers</b>				9U5T-14489-ZA (TE 1924900-1)				
<b>Wire Gauge and Type</b>				0.64mm = 20awg TXL 1.5mm = 18awg TXL				

**Certificate of Analysis**

Customer:	Product Number	: 52568990
TE CONNECTIVITY CORPORATION	Product Name	: ULTRAMID® A3EG7 BLACK 23189
8000 PIEDMONT TRIAD PKWY		POLYAMIDE 726KG FIBREBOARD IBC
GREENSBORO NC 27409-9407	Vehicle	:
Attention:	Batch/Lot	: 0209440764
FAX:	Manuf.Date	: Nov-02-2020
Cust Prod: 702661-9	Shipped Date	:
Cust Prod Name: ULT.A3EG7 BK23189 726KG 11G	Shipped Quantity	: 17,606.116 LB
Cust P.O.: 2713723214	Delivery Date	: Nov-24-2020
Cust P.O. Line: 1	Order Number	: 117817631 000010
Inspection Certificate 3.1 according to EN 10204	Delivery Note	: 145011989 900001

Characteristic	Result	UOM	-----Specification-----		
			Minimum	Maximum	Test Method
Ash / Filler Content	35.448	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.05	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	146	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

The information contained herein is based either on analytical tests of samples or on statistical process data; it is intended solely for purposes of comparison with the established specifications for the product. Warranties of the product are exclusively as set forth in the applicable contract documents.

**Certificate of Analysis**

Customer:	Product Number	: 52568990
TE CONNECTIVITY CORPORATION	Product Name	: ULTRAMID® A3EG7 BLACK 23189
8000 PIEDMONT TRIAD PKWY		POLYAMIDE 726KG FIBREBOARD IBC
GREENSBORO NC 27409-9407	Vehicle	:
Attention:	Batch/Lot	: 0209389090
FAX:	Manuf.Date	: Nov-12-2020
Cust Prod: 702661-9	Shipped Date	:
Cust Prod Name: ULT.A3EG7 BK23189 726KG 11G	Shipped Quantity	: 19,206.672 LB
Cust P.O.: 2713789939	Delivery Date	: Dec-10-2020
Cust P.O. Line: 1	Order Number	: 117830940 000010
Inspection Certificate 3.1 according to EN 10204	Delivery Note	: 145048709 900001

Characteristic	Result	UOM	----Specification----		Test Method
			Minimum	Maximum	
Ash / Filler Content	35.529	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.07	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	144	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

The information contained herein is based either on analytical tests of samples or on statistical process data; it is intended solely for purposes of comparison with the established specifications for the product. Warranties of the product are exclusively as set forth in the applicable contract documents.

THIS CERTIFICATE OF ANALYSIS HAS BEEN PRODUCED ELECTRONICALLY AND IS VALID WITHOUT A SIGNATURE.

**Certificate of Analysis**

Customer:	Product Number	: 52568990
TE CONNECTIVITY CORPORATION	Product Name	: ULTRAMID® A3EG7 BLACK 23189
8000 PIEDMONT TRIAD PKWY		POLYAMIDE 726KG FIBREBOARD IBC
GREENSBORO NC 27409-9407	Vehicle	:
Attention:	Batch/Lot	: 0209522880
FAX:	Manuf.Date	: Jan-22-2021
Cust Prod: 702661-9	Shipped Date	:
Cust Prod Name: ULT.A3EG7 BK23189 726KG 11G	Shipped Quantity	: 24,008.340 LB
Cust P.O.: 2714396818	Delivery Date	: Mar-02-2021
Cust P.O. Line: 1	Order Number	: 117906874 000010
Inspection Certificate 3.1 according to EN 10204	Delivery Note	: 145254330 900001

Characteristic	Result	UOM	-----Specification-----		Test Method
			Minimum	Maximum	
Ash / Filler Content	34.977	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.05	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	144	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**

Customer:	Product Number	: 52568990
TE CONNECTIVITY CORPORATION	Product Name	: ULTRAMID® A3EG7 BLACK 23189
8000 PIEDMONT TRIAD PKWY		POLYAMIDE 726KG FIBREBOARD IBC
GREENSBORO NC 27409-9407	Vehicle	:
Attention:	Batch/Lot	: 0209243148
FAX:	Manuf.Date	: Oct-01-2020
Cust Prod: 702661-9	Shipped Date	:
Cust Prod Name: ULT.A3EG7 BK23189 726KG 11G	Shipped Quantity	: 17,606.116 LB
Cust P.O.: 2713664337	Delivery Date	: Oct-20-2020
Cust P.O. Line: 1	Order Number	: 117811846 000010
Inspection Certificate 3.1 according to EN 10204	Delivery Note	: 144913452 900001

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Characteristic	Result	UOM	----Specification----		
			Minimum	Maximum	Test Method
Ash / Filler Content	35.509	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.05	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	142	ml/g	130	160	ISO 307

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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

Page 1 of 1

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THIS CERTIFICATE OF ANALYSIS HAS BEEN PRODUCED ELECTRONICALLY AND IS VALID WITHOUT A SIGNATURE.

**Certificate of Analysis**

Customer:	Product Number : 52568990
TE CONNECTIVITY CORPORATION 8000 PIEDMONT TRIAD PKWY GREENSBORO NC 27409-9407	Product Name : ULTRAMID® A3EG7 BLACK 23189 POLYAMIDE 726KG FIBREBOARD IBC
Attention:	Vehicle :
FAX:	Batch/Lot : 0209522880
Cust Prod: 702661-9	Manuf.Date : Jan-22-2021
Cust Prod Name: ULT.A3EG7 BK23189 726KG 11G	Shipped Date :
Cust P.O.: 2714396804	Shipped Quantity : 22,407.784 LB
Cust P.O. Line: 1	Delivery Date : Feb-15-2021
Inspection Certificate 3.1 according to EN 10204	Order Number : 117906877 000010
	Delivery Note : 145233286 900001

Characteristic	Result	UOM	-----Specification-----		Test Method
			Minimum	Maximum	
Ash / Filler Content	34.977	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.05	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	144	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

The information contained herein is based either on analytical tests of samples or on statistical process data; it is intended solely for purposes of comparison with the established specifications for the product. Warranties of the product are exclusively as set forth in the applicable contract documents.

**Certificate of Analysis**

<p>Customer:</p> <p>TE CONNECTIVITY CORPORATION 8000 PIEDMONT TRIAD PKWY GREENSBORO NC 27409-9407</p> <p>Attention:</p> <p>FAX:</p> <p>Cust Prod: 702661-9</p> <p>Cust Prod Name: ULT.A3EG7 BK23189 726KG 11G</p> <p>Cust P.O.: 2714396808</p> <p>Cust P.O. Line: 1</p> <p>Inspection Certificate 3.1 according to EN 10204</p>	<p>Product Number : 52568990</p> <p>Product Name : ULTRAMID® A3EG7 BLACK 23189 POLYAMIDE 726KG FIBREBOARD IBC</p> <p>Vehicle :</p> <p>Batch/Lot : 0209522880</p> <p>Manuf.Date : Jan-22-2021</p> <p>Shipped Date :</p> <p>Shipped Quantity : 22,407.784 LB</p> <p>Delivery Date : Feb-23-2021</p> <p>Order Number : 117906873 000010</p> <p>Delivery Note : 145251547 900001</p>
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Characteristic	Result	UOM	-----Specification-----		Test Method
			Minimum	Maximum	
Ash / Filler Content	34.977	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.05	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	144	ml/g	130	160	ISO 307

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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

Page 1 of 1

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THIS CERTIFICATE OF ANALYSIS HAS BEEN PRODUCED ELECTRONICALLY AND IS VALID WITHOUT A SIGNATURE.



**Certificate of Analysis**

Customer:	Product Number	: 52568990
TE CONNECTIVITY CORPORATION 8000 PIEDMONT TRIAD PKWY GREENSBORO NC 27409-9407	Product Name	: ULTRAMID® A3EG7 BLACK 23189 POLYAMIDE 726KG FIBREBOARD IBC
Attention:	Vehicle	:
FAX:	Batch/Lot	: 0209243148
Cust Prod: 702661-9	Manuf.Date	: Oct-01-2020
Cust Prod Name: ULT.A3EG7 BK23189 726KG 11G	Shipped Date	:
Cust P.O.: 2713722748	Shipped Quantity	: 17,606.116 LB
Cust P.O. Line: 1	Delivery Date	: Oct-30-2020
Inspection Certificate 3.1 according to EN 10204	Order Number	: 117817629 000010
	Delivery Note	: 144949688 900001

Characteristic	Result	UOM	----Specification----		Test Method
			Minimum	Maximum	
Ash / Filler Content	35.509	%	33.000	37.000	ASTM5630/ISO3451
Moisture Content	0.05	%		0.15	ASTM D6869 / ISO 15512B
Viscosity Number for Polyamides	142	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**

Customer:	Product Number	: 52506291
MAQUILAS TETAKAWI SA DE CV CARRET INT KM 1969 85340 EMPALME SON	Product Name	: ULTRAMID® A3EG7 UNCOLORED POLYAMIDE 726KG FIBREBOARD IBC
	Vehicle	: 220352/17-UC-3G
	Batch/Lot	: A521097A1
	Manuf.Date	: Apr-09-2021
Attention: BASFORORDERINFO@TE.COM	Shipped Date	: Jun-14-2021
eMAIL: BASFOOrderInfo@te.com	Shipped Quantity	: 4,801.668 LB
Cust Prod: 702661-2	Delivery Date	: Jun-14-2021
Cust Prod Name: ULT.A3EG7 UN 726KG 11G	Order Number	: 118195027 000010
Cust P.O.: 2716450634		
Cust P.O. Line: 1	Delivery Note	: 145568608 900001

**Inspection Certificate 3.1 according to EN 10204**

Characteristic	Result	UOM	----Specification----		Test Method
			Minimum	Maximum	
ASH-A	35.262	%	33.000	37.000	ASTM5630 / ISO3451
Moisture	0.08	%		0.12	ASTM6869 / ISO15512B
VN-PA	147	ml/g	130	160	ISO307

**Comments :**

Results shown are the means of individual test values for those samples taken during production.

This product is approved for the following specifications:

- MS-DB41 CPN2224
- MS-DB41 CPN3695
- WSK-M4D673-A
- GMP.PA66.013
- GMW16802P-PA66-GF35
- 100-1302
- M53122
- M5600

- NSF Standard 51 Listed
- NSF Standard 61 Listed

Thank you for choosing a BASF Product

# 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



Page: 1 of 3

Certification Date: 2018-07-11

Latest Issue: 2020-10-27

Expiry Date: 2022-01-09

...making excellence a habit.™

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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.

Americas Headquarters: BSI Group America Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA

A Member of the BSI Group of Companies.

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  
3800 Reidsville Road  
Winston-Salem  
North Carolina  
27102  
USA  
Calibration, Contract review, Product design, Purchasing,  
Sales, Supplier management, Testing

TE Connectivity  
Global Automotive Division Americas North  
20 Esna Park Drive  
Markham  
Ontario  
L3R 1E1  
Canada  
Product design, Testing

TE Connectivity  
Global Automotive Division Americas North  
2901 Fulling Mill Road  
Middletown  
Pennsylvania  
17057  
USA  
Customer service, Product design, Testing

TE Connectivity  
Global Automotive Division Americas North  
900 Wilshire Boulevard  
Suite 150  
Troy  
Michigan  
48084  
USA  
Product design

BSI Certificate Number: 514458-003

IATF Number: 0315420



Certification Date: 2018-07-11

Latest Issue: 2020-10-27

Expiry Date: 2022-01-09

Page: 2 of 3

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Americas Headquarters: BSI Group America Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA

A Member of the BSI Group of Companies.

Location

Registered Activities

TE Connectivity  
Global Automotive Division Americas North  
2100 Paxton Street  
Harrisburg  
Pennsylvania  
17111  
USA  
Testing

TE Connectivity  
North Carolina Distribution Center  
8000 Piedmont Triad Parkway  
Greensboro  
North Carolina  
27409  
USA  
Distribution, Logistics, Warehousing

TE Connectivity  
Global Automotive Division Americas North  
32 Celerity Wagon St.  
El Paso  
Texas  
79906  
USA  
Distribution, Logistics, Packaging, Warehousing

TE Connectivity  
West Coast Distribution Center  
1643 South Parco Avenue  
Ontario  
California  
91761  
USA  
Distribution, Logistics, Packaging, Warehousing

TE Connectivity Global Logistics  
Blvd. Industrial Norte #23 y Blvd. Solidaridad  
Col. Parque Industrial Hermosillo  
Hermosillo  
Sonora  
83118  
Mexico  
Warehousing, Distribution

BSI Certificate Number: 514458-003

IATF Number: 0315420



Certification Date: 2018-07-11

Latest Issue: 2020-10-27

Expiry Date: 2022-01-09

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Americas Headquarters: BSI Group America Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA

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