



Date: 23.09.2014

Federal Communications Commission  
Authorization and Evaluation Division  
7435 Oakland Mills Road  
Columbia, MD 21046

Attn: OET Dept.

Ref: FCC Class II Permissive change for FCC ID: WNS-020000007  
(Original Grant date: 11/13/2008)  
Applicant: Delphi Delco

Dear Examiner,

This is to request a Class II permissive change for FCC ID: WNS-020000007 originally granted on 11/13/2008.

The major changes filed under this application are:

All listed products in the specification description are new revisions of old products (certified in 2008) due to several discontinued components. With respect to the FBDII building block PCB design as well SW is identical with the initial homologation!  
All changed FBDII relevant components are drop in replacements and are described in the next pages!

**The RF part still remains the same!**

If you have any questions regarding this application, please feel free to contact me.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Thomas Rिंग'.

**CSA Group Bayern GmbH**  
Ohmstrasse 1-4  
**94342 Strasskirchen**

Name: Thomas Rिंग  
Titel: Teamleader Global Market Access

CSA Group Bayern GmbH  
Ohmstrasse 1-4  
94342 Strasskirchen, Germany

# Supplier Suggestion Change Request # 52932

Date Submitted : 24-Sep-2013

## CONTACT INFORMATION

<b>Name</b>	<b>Entered By</b>	<b>Owner</b>
Herr Vitali Michaelis	Herr Vitali Michaelis	Herr Vitali Michaelis
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<b>Receive Status Email</b>	N	Y

  

<b>Supplier Ultimate Name</b>	ATMEL CORP	
<b>Supplier Ultimate DUNS</b>	121385264	
<b>Supplier Manufacturing Location Name</b>	Atmel	<b>Supplier Manufacturing Location Duns</b> 266358084
<b>Supplier Manufacturing Location City</b>	Nantes	<b>Supplier Manufacturing Location State</b>
<b>Supplier Manufacturing Location Country</b>	FRANCE	

## AFFECTED PART INFORMATION

**Is this a pass-thru or direct ship product?** ☒ No ☐ Yes

**Ship To Location(s)** DELPHI DEUTSCHLAND GMBH  
**Division** Delphi Electronics & Safety  
**Region** Europe

**Commodity Group** Electrical

<b>Delphi Part # / PO # (for Indirect)</b>	<b>Revision</b>	<b>Drawing No.</b>	<b>Part / Project Name</b>
28094363	0		0

**Additional Parts**

<b>Supplier Part #</b>	<b>Supplier Part Name</b>
ATMEGA168-15MZ	

**Additional Part Numbers**

**Product Application**

<b>Delphi Buyer Name</b>	Shaikhadeh, Leo	<b>Product Engineer Name</b>
<b>Delphi Buyer Phone</b>		<b>Delphi Engineer Phone</b>
<b>Delphi SQE / AQE Name</b>	Denys Chock	

**Is this an Emergency ?** ☒ No ☐ Yes

<b>Other Delphi Contact</b>	<b>Title</b>	<b>Name</b>	<b>Phone</b>
1			
2			

## DEFINE CHANGE REQUEST

**Title**  
Technology Shrink of Automotive Microcontrollers

**Detail Description of Change Proposal**  
Optimized std logic cells and metal interconnection width reduction. Resulting is reduced die size. Replacements are: pin-to-pin and backward compatible; production tested using similar automotive test programs; meet similar datasheet specifications as the current products.

**Reason for Change**  
Optimized std logic cells and metal interconnection width reduction. Resulting is reduced die size. Replacements are: pin-to-pin and backward compatible; production tested using similar automotive test programs; meet similar datasheet specifications as the current products.

**Reference PCR Number :**

## CHANGE IMPACT

### Types of Improvement

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Cost               | <input type="checkbox"/> Quality                    | <input type="checkbox"/> Delivery          | <input type="checkbox"/> Logistics            |
| <input type="checkbox"/> Consumer Appeal    | <input type="checkbox"/> Maintenance & Support      | <input type="checkbox"/> Equipment Upgrade | <input type="checkbox"/> Software Enhancement |
| <input type="checkbox"/> Network Capability | <input checked="" type="checkbox"/> Other : Upgrade |  |   |

### Affects

- |                                     |                                    |   |  |
|-------------------------------------|------------------------------------|---|--|
| <input type="checkbox"/> Appearance | <input type="checkbox"/> Function  | <input type="checkbox"/> Process            | <input type="checkbox"/> Location change                         |
| <input type="checkbox"/> Material   | <input type="checkbox"/> Packaging | <input type="checkbox"/> Customer Interface | <input checked="" type="checkbox"/> Other : design & fab process |

### Impact Change will have

No change in fit form and function. Some flexibility was added from an application perspective

<b>Estimated Implementation Lead Time :</b>	4 Weeks	
<b>Requested Disposition Date :</b>	15-Mar-2014	<b>Sample Parts to Delphi By :</b> 30-Sep-2013
<b>Component Data / Test Data to Delphi By :</b>	30-Sep-2013	<b>Desired Date for Production at Supplier Facility :</b> 30-Sep-2013
<b>Date Supplier can Support Production quantities to Delphi :</b>	15-Feb-2014	<b>Target PPAP Submission Date :</b> 30-Sep-2013

**If One or More Product Lines Deny Change, Can Supplier Support Both Old and New Parts or Materials ?** ☒ No ☐ Yes

### Alternative

The two parts are still in mass production. However the old process will be stopped in the next years. the eventuality of a product continuation needs discussion with sales contact and marketing.

# Supplier Suggestion Change Request # 49279

Date Submitted : 14-Jan-2013

## CONTACT INFORMATION

<b>Name</b>	<b>Entered By</b>	<b>Owner</b>
	Sherry Rosselot	Sherry Rosselot
<b>Title</b>		Administrator
<b>Phone</b>	765-459-5355	765-459-5355
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<b>Receive Status Email</b>	Y	Y

  

<b>Supplier Ultimate Name</b>	NXP SEMICONDUCTORS N.V.		
<b>Supplier Ultimate DUNS</b>	414955513		
<b>Supplier Manufacturing Location Name</b>	NXP Semiconductors Netherlands	<b>Supplier Manufacturing Location Duns</b>	415097385
<b>Supplier Manufacturing Location City</b>	Nijmegen	<b>Supplier Manufacturing Location State</b>	
<b>Supplier Manufacturing Location Country</b>	NETHERLANDS		

## AFFECTED PART INFORMATION

**Is this a pass-thru or direct ship product?** ☒ No ☐ Yes

**Ship To Location(s)** Texton, DA31, DAT3, Megamos, Fuba, Hungary

**Division** Delphi Electronics & Safety

**Region** North America

**Commodity Group** Electrical

<b>Delphi Part # / PO # (for Indirect)</b>	<b>Revision</b>	<b>Drawing No.</b>	<b>Part / Project Name</b>
9397553	B	Unknown	Unknown`
<b>Additional Parts</b>			
FRD13544012	A	Unknown	Unknown

  

<b>Supplier Part #</b>	<b>Supplier Part Name</b>
TJA1020T/VM	LIN Transceiver SO8
<b>Additional Part Numbers</b>	
TJA1020T/VM	Lin Transceiver SO8

  

<b>Product Application</b>	Unknown	<b>Product Engineer Name</b>	Yogesh L
<b>Delphi Buyer Name</b>	May Leong	<b>Delphi Engineer Phone</b>	Unknown
<b>Delphi Buyer Phone</b>	+65-6450-8655		
<b>Delphi SQE / AQE Name</b>	Burkhard Exner / Loris Rolfe		

**Is this an Emergency ?** ☒ No ☐ Yes

<b>Other Delphi Contact</b>	<b>Title</b>	<b>Name</b>	<b>Phone</b>
1			
2			

## DEFINE CHANGE REQUEST

### Title

TJA1020T Fab Transfer Hamburg 6inch to ICN8 8inch

### Detail Description of Change Proposal

NXP's TJA1020T/VM LIN transceiver is being transferred from our Hamburg Germany 6inch waferfab to our 8inch (ICN8) waferfab in Nijmegen Netherlands, where the newest generation of IVN products is manufactured. The new ICN8 product has an updated Bill of Materials. Changes that will occur: - Backside Metal (BSM) will be removed -Wafercoat will added, improving product robustness - Die thickness will change from 380um to 280um - Bondwire will change from 25um Au to 20um AuPd - Sawlane will change to 50um - Topside marking format will change (details in attachment with submission) Because of this transfer announcement, Delphi's options are as follows: 1. Evaluate and qualify the ICN8 version and approve it against 9397553. This option would not require a BOM change for Delphi. 2. Evaluate and qualify the next generation for existing programs. TJA1021T (Delphi has already qualified TJA1021T under cpn's 28136407 & 28148503, see SCR48319 for changes occurring to this part), or TJA1029T (3rd generation). 3. Make a lifetime buy of the Hamburg device (TJA1020T/VM). LTB date is 06/30/13 with a LTD date of 04/30/14. For all new designs, Delphi should take the necessary steps and immediately start using TJA1020T/CM, TJA1021T/xx/C, TJA1021T or TJA1029T. Also note that this change will enable NXP to eventually implement a dual fab sourcing strategy for our automotive customers, scheduled for 2014."

### Reason for Change

The automotive market shows a strong demand for our newest generation automotive IC's, which are all manufactured in 8inch wafer fabs. However, the demand for our mature TJA1020 LIN transceiver also remains stronger than expected, which challenges a future in the current 6inch production out of Hamburg. To ensure continued availability for our customers, NXP has decided to make this transfer, from Hamburg 6" to Nijmegen 8".

**Reference PCR Number :**

## CHANGE IMPACT

### Types of Improvement

- |   |  |  |   |
|---|--|--|---|
| <input type="checkbox"/> Cost               | <input checked="" type="checkbox"/> Quality    | <input type="checkbox"/> Delivery          | <input type="checkbox"/> Logistics            |
| <input type="checkbox"/> Consumer Appeal    | <input type="checkbox"/> Maintenance & Support | <input type="checkbox"/> Equipment Upgrade | <input type="checkbox"/> Software Enhancement |
| <input type="checkbox"/> Network Capability |  |  |   |

### Affects

- |  |                                    |   |   |
|--|------------------------------------|---|---|
| <input type="checkbox"/> Appearance          | <input type="checkbox"/> Function  | <input checked="" type="checkbox"/> Process | <input checked="" type="checkbox"/> Location change |
| <input checked="" type="checkbox"/> Material | <input type="checkbox"/> Packaging | <input type="checkbox"/> Customer Interface |   |

# Supplier Suggestion Change Request # 48319

Date Submitted : 29-Oct-2012

## CONTACT INFORMATION

<b>Name</b>	<b>Entered By</b>	<b>Owner</b>
<b>Title</b>	Sherry Rosselot	Sherry Rosselot
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<b>Receive Status Email</b>	N	sherry.rosselot@nxp.com
		Y
<b>Supplier Ultimate Name</b>	NXP SEMICONDUCTORS N.V.	
<b>Supplier Ultimate DUNS</b>	414955513	
<b>Supplier Manufacturing Location Name</b>	NXP Semiconductors Netherlads	<b>Supplier Manufacturing Location Duns</b> 415097385
<b>Supplier Manufacturing Location City</b>	Nijmegen	<b>Supplier Manufacturing Location State</b>
<b>Supplier Manufacturing Location Country</b>	NETHERLANDS	

## AFFECTED PART INFORMATION

**Is this a pass-thru or direct ship product?** ☒ No ☐ Yes

**Ship To Location(s)** DA31, DAT3, Hungary, Gdansk, DA26, Megamos, fuba, Texton & Braga

**Division** Delphi Electronics & Safety

**Region** North America

**Commodity Group** Electrical

<u>Delphi Part # / PO # (for Indirect)</u>	<u>Revision</u>	<u>Drawing No.</u>	<u>Part / Project Name</u>
28136407	A	Unknown	Unknown
<b>Additional Parts</b>			
28148503	A	Unknown	Unknown
<b>Supplier Part #</b>		<b>Supplier Part Name</b>	
TJA1021T/20/C		LIN Transceiver SO8	
<b>Additional Part Numbers</b>			
TJA1021T/10/C		LIN Transceiver SO8	
<b>Product Application</b>	Unknown		
<b>Delphi Buyer Name</b>	May Leong	<b>Product Engineer Name</b>	Ramon Aziz
<b>Delphi Buyer Phone</b>	Unknown	<b>Delphi Engineer Phone</b>	Unknown
<b>Delphi SQE / AQE Name</b>	Burkhard Exner / Loris Rolfe		
<b>Is this an Emergency ?</b> <input checked="" type="radio"/> No <input type="radio"/> Yes			
<u>Other Delphi Contact</u>	<u>Title</u>	<u>Name</u>	<u>Phone</u>
1			
2			

## DEFINE CHANGE REQUEST

**Title**

Quality Improvements to TJA1021T LIN Transceiver

**Detail Description of Change Proposal**

NXP TJA1021T LIN transceivers out of ABCD-3 process will have the following quality improvements made: - Process update to PA100TMX04 using HDP passivation - Mould compound (Sumitomo EME6210 to Nitto GE7470) - Die attach material (Ablebond 8390P to Henkel QMI-519) - Roughened top side leadframe (already used in other transceivers, reference SCR30756) - Wafer thickness (380um to 280um) - Bondwire diameter and material (25um AuBe to 20um AuPd) - Sawlane change to 50um - Product marking will change, outlined in attachment to change submission - Type description will also change: TJA1021T/10/C to TJA1021T/10/CM and TJA1021T/20/C to TJA1021T/20/CM - No change to the existing NXP datasheet.

**Reason for Change**

These changes are a result of ongoing quality improvements and industrial standardizations and not from any underlying quality issue

**Reference PCR Number :**

## CHANGE IMPACT

### Types of Improvement

<input type="checkbox"/> Cost	<input checked="" type="checkbox"/> Quality	<input type="checkbox"/> Delivery	<input type="checkbox"/> Logistics
<input type="checkbox"/> Consumer Appeal	<input type="checkbox"/> Maintenance & Support	<input type="checkbox"/> Equipment Upgrade	<input type="checkbox"/> Software Enhancement
<input type="checkbox"/> Network Capability			

### Affects

<input type="checkbox"/> Appearance	<input type="checkbox"/> Function	<input checked="" type="checkbox"/> Process	<input type="checkbox"/> Location change
<input checked="" type="checkbox"/> Material	<input type="checkbox"/> Packaging	<input type="checkbox"/> Customer Interface	

### Impact Change will have

A more robust part. Should have no negative impact to customer.

<b>Estimated Implementation Lead Time :</b>	1 Months	<b>Sample Parts to Delphi By :</b>	03-Dec-2012
<b>Requested Disposition Date :</b>	31-Mar-2013	<b>Desired Date for Production at Supplier Facility :</b>	31-Mar-2013
<b>Component Data / Test Data to Delphi By :</b>	29-Oct-2012		

# Supplier Suggestion Change Request # 48318

Date Submitted : 29-Oct-2012

## CONTACT INFORMATION

<b>Name</b>	<b>Entered By</b>	<b>Owner</b>
<b>Title</b>	Sherry Rosselot	Sherry Rosselot
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<b>Email</b>	sherry.rosselot@nxp.com	765-455-4031
<b>Receive Status Email</b>	N	sherry.rosselot@nxp.com
		Y
<b>Supplier Ultimate Name</b>	NXP SEMICONDUCTORS N.V.	
<b>Supplier Ultimate DUNS</b>	414955513	
<b>Supplier Manufacturing Location Name</b>	NXP Semiconductors Netherlands	<b>Supplier Manufacturing Location Duns</b> 415097385
<b>Supplier Manufacturing Location City</b>	Nijmegen	<b>Supplier Manufacturing Location State</b>
<b>Supplier Manufacturing Location Country</b>	NETHERLANDS	

## AFFECTED PART INFORMATION

Is this a pass-thru or direct ship product? ☒ No ☐ Yes

**Ship To Location(s)** Fuba  
**Division** Delphi Electronics & Safety  
**Region** Europe

**Commodity Group** Electrical

<u>Delphi Part # / PO # (for Indirect)</u>	<u>Revision</u>	<u>Drawing No.</u>	<u>Part / Project Name</u>
28086447	A	Unknown	Unknown
<b>Additional Parts</b>			
28117864	A	Unknown	Unknown
<b>Supplier Part #</b>		<b>Supplier Part Name</b>	
PQJ7980AHN/C0CH		LoPSTer 1.25	
<b>Additional Part Numbers</b>			
PQJ7980AHN/C0DL		LoPSTer 1.25	
<b>Product Application</b>	Unknown		
<b>Delphi Buyer Name</b>	Unknown		
<b>Delphi Buyer Phone</b>	Unknown		
<b>Delphi SQE / AQE Name</b>	Burkhard Exner		
<b>Product Engineer Name</b>	Unknown		
<b>Delphi Engineer Phone</b>	Unknown		
<b>Is this an Emergency ?</b> <input checked="" type="radio"/> No <input type="radio"/> Yes			
<b>Other Delphi Contact</b>	<b>Title</b>	<b>Name</b>	<b>Phone</b>
1			
2			

## DEFINE CHANGE REQUEST

**Title**  
Quality Improvements to LoPSTer 1.25 PQJ7980AHN

**Detail Description of Change Proposal**  
NXP is making the following design, manufacturing and test changes to the listed types: -New passivation stack (HDP stack) This will give an increased mechanical robustness. -Wafercoating change which will also improve mechanical robustness. -Improved leadframe version. This will increase robustness against moisture. -Moisture Sensitivity Level will change from MSL-3 to MSL-2a -EMC (clock spurs) to improve EMC performance at clock input -Adjust PA regulator thresholds which will improve power output control. -PA and VCO isolation improvement which will improve robustness at TX application with SAW filter (1.25 only) -ESD improvement--> Specification upgrade -DC testing PA which will give test coverage improvement -New type description for PQJ7980AHN/C0CH, once qualified will be PQJ7980AHN/C0IH -New type description for PQJ7980AHN/C0DL, once qualified will be PQJ7980AHN/C0JL

**Reason for Change**  
Quality improvements being made for a more robust part, but not for any underlying quality issue.

**Reference PCR Number :**

## CHANGE IMPACT

### Types of Improvement

<input type="checkbox"/> Cost	<input checked="" type="checkbox"/> Quality	<input type="checkbox"/> Delivery	<input type="checkbox"/> Logistics
<input type="checkbox"/> Consumer Appeal	<input type="checkbox"/> Maintenance & Support	<input type="checkbox"/> Equipment Upgrade	<input type="checkbox"/> Software Enhancement
<input type="checkbox"/> Network Capability			

### Affects

<input type="checkbox"/> Appearance	<input type="checkbox"/> Function	<input checked="" type="checkbox"/> Process	<input type="checkbox"/> Location change
<input type="checkbox"/> Material	<input type="checkbox"/> Packaging	<input type="checkbox"/> Customer Interface	

**Impact Change will have**  
Improved part robustness.

<b>Estimated Implementation Lead Time :</b>	1 Months	<b>Sample Parts to Delphi By :</b>	15-Nov-2012
<b>Requested Disposition Date :</b>	01-Feb-2013		