



<b>Title of Change:</b>	Qualify Stars Microelectronics as alternative site for assembly & test and changes to leadframe, mold compound & die attach for NCP431 SOT23-3 devices.
<b>Proposed first ship date:</b>	20 November 2019
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <Marquita.jones@onsemi.com>
<b>Samples:</b>	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com> Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or <MohdAzizi.Azman@onsemi.com>.
<b>Type of notification:</b>	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>
<b>Change Part Identification:</b>	Product marked with date month 7 or later may be built from current factory or from Stars Microelectronics Factory. The trace code marking on Line 1 is of the form <u>M</u> where <u>M</u> = Assembly operation month. Additionally on the label of the box and reel, the ASSY LOC: UB will also indicate product assembled in Stars Microelectronics. Please see sample label on Page 2 at the following URL <a href="http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF">http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF</a> to see the location of the ASSY LOC.
<b>Change Category:</b>	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____

<b>Change Sub-Category(s):</b>
<input checked="" type="checkbox"/> Manufacturing Site Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Site Transfer <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____

<b>Sites Affected:</b>	ON Semiconductor Sites: ON Seremban, Malaysia	External Foundry/Subcon Sites: Stars Microelectronics, Thailand
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**Description and Purpose:**

ON Semiconductor would like to inform its customers of the qualification of Stars Microelectronics (Thailand) for the assembly and test of NCP431 SOT23 -3 products listed in this Final Product Change Notification (FPCN). This is a capacity expansion, and at the end of the FPCN approval cycle, these products may be dual sourced from either Stars Microelectronics, Thailand or from ON Semiconductor Seremban, Malaysia.

For Test, the same load boards, test programs and other necessary hardware used in ON Semiconductor Seremban, will be used to test the products listed.

For assembly, BOM changes associated with this FPCN are shown here:

	Before Change Description	After Change Description	
Assembly site	ON Semiconductor Seremban, MY	ON Semiconductor Seremban, MY	Stars Microelectronics, TH
Leadframe	Finish Sn, 35x60 mils	Finish Sn, 35x60 mils	Finish PPF (NiPdAu) +ME2, 38x64
Die Attach	EN4370K3, ABLESTIK 8900NC	EN4370K3, ABLESTIK 8900NC	ABLESTIK 8900NC
Mold Compound	G600FB	G600FB	G600



The marking is as follows: XXXM where M represents the date code. The device marking will not change but the date code marking will change:

	Before Change Description	After Change Description	
Assembly site	ON Semiconductor Seremban, MY	ON Semiconductor Seremban, MY	Stars Microelectronics, TH
Date Code	M	M	<u>M</u>

**Reliability Data Summary:**

**QV DEVICE NAME:** NCP431BVSNT1G  
**RMS:** 43363, 46143, 55662  
**PACKAGE:** SOT23-3

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	2016 hrs	0/240
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/240
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/240
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	192 hrs	0/240
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	-	0/720
SAT	JEDEC STD 035	Pre and Post MSL 1	-	0/66
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/90
SD	JSTD002	Ta = 245C, 5 sec	-	0/45
PD	Physical Dimensions	Per Case Outline	-	0/90

**Electrical Characteristic Summary:**

Electrical characteristics are not impacted by this change. Electrical comparison reports are available upon request.

**List of Affected Parts:**

**Note:** Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

Part Number	Qualification Vehicle
NCP431BISNT1G	NCP431BVSNT1G
NCP431BCSNT1G	NCP431BVSNT1G
NCP431AVSNT1G	NCP431BVSNT1G
NCP431AISNT1G	NCP431BVSNT1G
NCP431ACSNT1G	NCP431BVSNT1G
NCP431BVSNT1G	NCP431BVSNT1G

Japanese translation of the notification starts here.  
通知の日本語訳はここから始まります。

*Note: The Japanese version is for reference only. In case of any differences between the English and Japanese version, the English version shall control.*

注：日本語版は参照用です。英語版と日本語版の違いがある場合は、英語版が優先されます。





## 信頼性データの要約:

デバイス名 NCP431BVSNT1G  
 RMS 43363, 46143, 55662  
 パッケージ SOT23-3

試験	仕様	条件	間隔	結果
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	2016 hrs	0/240
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/240
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/240
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SAT	JEDEC STD 035	Pre and Post MSL 1	-	0/66
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/90
SD	JSTD002	Ta = 245C, 5 sec	-	0/45
PD	Physical Dimensions	Per Case Outline	-	0/90

## 電気特性の要約:

電気的特性への影響はありません。ご要望に応じて、電気的比較レポートを提供します。

## 影響を受ける部品の一覧:

注: 部品一覧には標準部品番号 (既製品) のみが記載されています。本 PCN の影響を受けるカスタム部品番号は、PCN メールで提供される顧客個別の付録、または PCN カスタマイズポータルに記載されています。

部品番号	品質試験用ピークル
NCP431BISNT1G	NCP431BVSNT1G
NCP431BCSNT1G	NCP431BVSNT1G
NCP431AVSNT1G	NCP431BVSNT1G
NCP431AISNT1G	NCP431BVSNT1G
NCP431ACSNT1G	NCP431BVSNT1G
NCP431BVSNT1G	NCP431BVSNT1G