



Title of Change:	Change of bonding wire bill of material, from gold wire to palladium coated copper (PCC) wire, for XDFN6 devices having ONC25 (4-Metal Layer) pad technology at ON Semiconductor, Tarlac City, Philippines	
Proposed first ship date:	24 April 2019 or earlier with customer approval	
Contact information:	Contact your local ON Semiconductor Sales Office or <Jaroslav.Supina@onsemi.com>	
Samples:	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.	
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Phine.Guevarra@onsemi.com>	
Type of notification:	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>	
Change Part Identification:	Shipments made after work week 15, 2019 (or earlier with customer approval) which have been assembled in ON Semiconductor, Tarlac City, Philippines, will be assembled with PCC wire. There will be a hard cut-over between wire bond material and date code traceability of the conversion will be maintained by ON Semiconductor.	
Change Category:	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____	
Change Sub-Category(s):	<input 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: _____	
Sites Affected:	ON Semiconductor Sites: ON Tarlac City, Philippines	External Foundry/Subcon Sites: None
Description and Purpose:		
The change covers the conversion of bond wire material from 20um gold (Au) to 20um palladium coated copper (PCC) for products assembled by ON Semiconductor, Tarlac City, Philippines (ON Semiconductor -Tarlac). Upon effectivity of this PCN, product manufactured by ON Semiconductor-Tarlac will convert to PCC wire. The bill of material for product assembled in alternate qualified manufacturing locations will not change.		
	Before Change Description	After Change Description
Bond Wire	20um Au	20um PCC

**Reliability Data Summary:**

QV Device Name NCP120AMX120TCG
RMS S47448/S48048
Package XDFN6

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, bias at 1.2X Nominal (not to exceed Max rated)	1008 hrs	0/240
HTSL	JESD22-A103	Ta= 150°C	1008 hrs & 2016 hrs	0/252
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/252
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs 192 hrs	0/252
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	Results	0/752
RSH	JESD22- B106	Ta = 265C, 10 sec	Results	0/30
SAT	as outlined in MSB17722C	Compare for Delamination before and after PC	Results	0/66
DPA	AEC Q101 -004	Following PC + TC	Results	0/6
CDPA WP	MIL 883E	Following PC + TC	Results	0/21
CDPA WP	MIL 883E	Following HTSL	Results	0/18
CDPA SEM	AEC -006	Following PC + TC	Results	0/6
CDPA SAT	AEC -006	Following PC + TC	Results	0/66
DPA SEM	AEC Q101 -004	Following PC + HAST	Results	0/6
BPS	Min Cpk 1.33	per assembly spec	Results	0/90
BS	Min Cpk 1.33	per assembly spec	Results	0/90
ED	Characterization of all 48A parameters	Critical Parameters	Results	0/90
PMD	12MON49370E	<80% PMD	Results	Pass
UPD	12MON49370E	No under pad damage	Results	Pass

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

**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
NCP120AMX080TCG	NCP120AMX120TCG
NCP120AMX105TCG	NCP120AMX120TCG
NCP120AMX110TCG	NCP120AMX120TCG
NCP120AMX115TCG	NCP120AMX120TCG
NCP120AMX120TCG	NCP120AMX120TCG
NCP120AMX150TCG	NCP120AMX120TCG
NCP120AMX180TCG	NCP120AMX120TCG
NCP120AMX210TCG	NCP120AMX120TCG
NCP120BMX080TCG	NCP120AMX120TCG
NCP120BMX105TCG	NCP120AMX120TCG
NCP120BMX110TCG	NCP120AMX120TCG
NCP120BMX115TCG	NCP120AMX120TCG
NCP120BMX120TCG	NCP120AMX120TCG
NCP120BMX150TCG	NCP120AMX120TCG
NCP120BMX180TCG	NCP120AMX120TCG
NCP120BMX210TCG	NCP120AMX120TCG
NCP121AMX140TCG	NCP120AMX120TCG
NCP121AMX145TCG	NCP120AMX120TCG
NCP121AMX160TCG	NCP120AMX120TCG
NCP121AMX165TCG	NCP120AMX120TCG
NCP121AMX170TCG	NCP120AMX120TCG
NCP121AMX173TCG	NCP120AMX120TCG
NCP121AMX175TCG	NCP120AMX120TCG
NCP121AMX185TCG	NCP120AMX120TCG
NCP130AMX080TCG	NCP120AMX120TCG
NCP130AMX090TCG	NCP120AMX120TCG
NCP130AMX100TCG	NCP120AMX120TCG
NCP130AMX105TCG	NCP120AMX120TCG
NCP130AMX110TCG	NCP120AMX120TCG
NCP130AMX115TCG	NCP120AMX120TCG
NCP130AMX120TCG	NCP120AMX120TCG



NCP130AMX150TCG	NCP120AMX120TCG
NCP130AMX180TCG	NCP120AMX120TCG
NCP130AMX210TCG	NCP120AMX120TCG
NCP130BMX080TCG	NCP120AMX120TCG
NCP130BMX090TCG	NCP120AMX120TCG
NCP130BMX100TCG	NCP120AMX120TCG
NCP130BMX110TCG	NCP120AMX120TCG
NCP130BMX115TCG	NCP120AMX120TCG
NCP130BMX120TCG	NCP120AMX120TCG
NCP130BMX150TCG	NCP120AMX120TCG
NCP130BMX180TCG	NCP120AMX120TCG
NCP130BMX210TCG	NCP120AMX120TCG
NCP133AMX090TCG	NCP120AMX120TCG
NCP133AMX100TCG	NCP120AMX120TCG
NCP133AMX105TCG	NCP120AMX120TCG
NCP133AMX110TCG	NCP120AMX120TCG
NCP133AMX115TCG	NCP120AMX120TCG
NCP133AMX120TCG	NCP120AMX120TCG
NCP133AMX125TCG	NCP120AMX120TCG
NCP133AMX130TCG	NCP120AMX120TCG
NCP133AMX150TCG	NCP120AMX120TCG
NCP133AMX180TCG	NCP120AMX120TCG
NCP133AMXADJTCG	NCP120AMX120TCG
NCP133BMXADJTCG	NCP120AMX120TCG
SCY99203AMX110TCG	NCP120AMX120TCG
SCY99222AMX105TCG	NCP120AMX120TCG
SCY99222AMX120TCG	NCP120AMX120TCG

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。



変更件名:	ON Semiconductor Tarlac(フィリピン)で製造する ONC25 (4-Metal Layer)パッド技術を有する XDFN6 製品における、Au ワイヤから Palladium coated Cu (PCC) ワイヤへのボンディングワイヤ材料変更	
初回出荷予定日:	24 April 2019 (またはお客様からの承認が得られた場合はそれ以前)	
連絡先情報:	現地のオン・セミコンダクター営業所または <Jaroslav.Supina@onsemi.com> お問い合わせください。	
サンプル:	現地のオン・セミコンダクター営業所または <PCN.Samples@onsemi.com> お問い合わせください。 サンプルは、この変更の初回通知、初回 PCN の日付から 30 日以内に要求してください。	
追加の信頼性データ:	お客様の地域のオン・セミコンダクター営業所または <Phine.Guevarra@onsemi.com> お問い合わせください。	
通知種別:	これは、お客様宛の最終製品 / プロセス変更通知 (FPCN) です。FPCN は変更実施の 90 日前に発行されます。 オン・セミコンダクターは、この通知の送付から 30 日以内に書面による問い合わせがない限り、この変更が承諾されたものとみなします。お問い合わせは、<PCN.Support@onsemi.com> 宛てにお願いします。	
変更部品の識別:	2019 年 15 週以降 (もしくは、それより早く顧客承認が得られた以降) に ON Semiconductor Tarlac(フィリピン)で組み立てられる製品は PCC ワイヤ品となります。ワイヤ材料の変更には移行期間が発生します。変更品は日付コードにより管理します。	
変更カテゴリ:	<input type="checkbox"/> ウェハファブの変更 <input checked="" type="checkbox"/> アセンブリの変更 <input type="checkbox"/> 試験の変更 <input type="checkbox"/> その他 _____	
変更サブカテゴリ:	<input type="checkbox"/> 製造拠点の追加 <input checked="" type="checkbox"/> 材料の変更 <input type="checkbox"/> データシート/製品資料の変更 <input type="checkbox"/> 製造拠点の移転 <input type="checkbox"/> 製品仕様の変更 <input type="checkbox"/> 出荷/パッケージング/表記 <input type="checkbox"/> 製造プロセスの変更 <input type="checkbox"/> その他: _____	
影響を受ける拠点:	オン・セミコンダクター拠点: ON Tarlac City, Philippines	外部製造工場 / 下請業者拠点: 無し
説明および目的:	<p>本通知は ON Semiconductor Tarlac(フィリピン)で組み立てを行なっている対象製品のボンドワイヤ材料を 20um Au から 20um Palladium coated Cu (PCC)へ変更することをお知らせするためのものです。本 PCN の実施後、ON Semiconductor Tarlac で組み立てられる対象製品のワイヤは PCC になります。</p> <p>認定されている他の生産拠点で組み立てられる対象製品については材料変更されません。</p>	
	変更前の表記	変更後の表記
ボンドワイヤ	20um Au	20um PCC



信頼性データの要約:

デバイス名: NCP120AMX120TCG
 RMS: S47448/S48048
 パッケージ: XDFN6

テスト	仕様	条件	間隔	結果
HTOL	JESD22-A108	Ta=125°C, bias at 1.2X Nominal (not to exceed Max rated)	1008 hrs	0/240
HTSL	JESD22-A103	Ta= 150°C	1008 hrs & 2016 hrs	0/252
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/252
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs 192 hrs	0/252
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	Results	0/752
RSH	JESD22- B106	Ta = 265C, 10 sec	Results	0/30
SAT	as outlined in MSB17722C	Compare for Delamination before and after PC	Results	0/66
DPA	AEC Q101 -004	Following PC + TC	Results	0/6
CDPA WP	MIL 883E	Following PC + TC	Results	0/21
CDPA WP	MIL 883E	Following HTSL	Results	0/18
CDPA SEM	AEC -006	Following PC + TC	Results	0/6
CDPA SAT	AEC -006	Following PC + TC	Results	0/66
DPA SEM	AEC Q101 -004	Following PC + HAST	Results	0/6
BPS	Min Cpk 1.33	per assembly spec	Results	0/90
BS	Min Cpk 1.33	per assembly spec	Results	0/90
ED	Characterization of all 48A parameters	Critical Parameters	Results	0/90
PMD	12MON49370E	<80% PMD	Results	Pass
UPD	12MON49370E	No under pad damage	Results	Pass

電気的特性の要約:

電気的特性への影響はありません。



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	認定試験用ピークル
NCP120AMX080TCG	NCP120AMX120TCG
NCP120AMX105TCG	NCP120AMX120TCG
NCP120AMX110TCG	NCP120AMX120TCG
NCP120AMX115TCG	NCP120AMX120TCG
NCP120AMX120TCG	NCP120AMX120TCG
NCP120AMX150TCG	NCP120AMX120TCG
NCP120AMX180TCG	NCP120AMX120TCG
NCP120AMX210TCG	NCP120AMX120TCG
NCP120BMX080TCG	NCP120AMX120TCG
NCP120BMX105TCG	NCP120AMX120TCG
NCP120BMX110TCG	NCP120AMX120TCG
NCP120BMX115TCG	NCP120AMX120TCG
NCP120BMX120TCG	NCP120AMX120TCG
NCP120BMX150TCG	NCP120AMX120TCG
NCP120BMX180TCG	NCP120AMX120TCG
NCP120BMX210TCG	NCP120AMX120TCG
NCP121AMX140TCG	NCP120AMX120TCG
NCP121AMX145TCG	NCP120AMX120TCG
NCP121AMX160TCG	NCP120AMX120TCG
NCP121AMX165TCG	NCP120AMX120TCG
NCP121AMX170TCG	NCP120AMX120TCG
NCP121AMX173TCG	NCP120AMX120TCG
NCP121AMX175TCG	NCP120AMX120TCG
NCP121AMX185TCG	NCP120AMX120TCG
NCP130AMX080TCG	NCP120AMX120TCG
NCP130AMX090TCG	NCP120AMX120TCG
NCP130AMX100TCG	NCP120AMX120TCG
NCP130AMX105TCG	NCP120AMX120TCG
NCP130AMX110TCG	NCP120AMX120TCG
NCP130AMX115TCG	NCP120AMX120TCG



最終製品 / プロセス変更通知

文書番号# : FPCN22501X

発行日 : 17 January 2019

NCP130AMX120TCG	NCP120AMX120TCG
NCP130AMX150TCG	NCP120AMX120TCG
NCP130AMX180TCG	NCP120AMX120TCG
NCP130AMX210TCG	NCP120AMX120TCG
NCP130BMX080TCG	NCP120AMX120TCG
NCP130BMX090TCG	NCP120AMX120TCG
NCP130BMX100TCG	NCP120AMX120TCG
NCP130BMX110TCG	NCP120AMX120TCG
NCP130BMX115TCG	NCP120AMX120TCG
NCP130BMX120TCG	NCP120AMX120TCG
NCP130BMX150TCG	NCP120AMX120TCG
NCP130BMX180TCG	NCP120AMX120TCG
NCP130BMX210TCG	NCP120AMX120TCG
NCP133AMX090TCG	NCP120AMX120TCG
NCP133AMX100TCG	NCP120AMX120TCG
NCP133AMX105TCG	NCP120AMX120TCG
NCP133AMX110TCG	NCP120AMX120TCG
NCP133AMX115TCG	NCP120AMX120TCG
NCP133AMX120TCG	NCP120AMX120TCG
NCP133AMX125TCG	NCP120AMX120TCG
NCP133AMX130TCG	NCP120AMX120TCG
NCP133AMX150TCG	NCP120AMX120TCG
NCP133AMX180TCG	NCP120AMX120TCG
NCP133AMXADJTCG	NCP120AMX120TCG
NCP133BMXADJTCG	NCP120AMX120TCG
SCY99203AMX110TCG	NCP120AMX120TCG
SCY99222AMX105TCG	NCP120AMX120TCG
SCY99222AMX120TCG	NCP120AMX120TCG

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle
NCP120AMX080TCG		NCP120AMX120TCG
NCP120AMX105TCG		NCP120AMX120TCG
NCP120AMX110TCG		NCP120AMX120TCG
NCP120AMX115TCG		NCP120AMX120TCG
NCP120AMX120TCG		NCP120AMX120TCG
NCP120AMX150TCG		NCP120AMX120TCG
NCP120AMX180TCG		NCP120AMX120TCG
NCP120AMX210TCG		NCP120AMX120TCG
NCP120BMX080TCG		NCP120AMX120TCG
NCP120BMX105TCG		NCP120AMX120TCG
NCP120BMX110TCG		NCP120AMX120TCG
NCP120BMX115TCG		NCP120AMX120TCG
NCP120BMX120TCG		NCP120AMX120TCG
NCP120BMX150TCG		NCP120AMX120TCG
NCP120BMX180TCG		NCP120AMX120TCG
NCP120BMX210TCG		NCP120AMX120TCG
NCP121AMX140TCG		NCP120AMX120TCG
NCP121AMX145TCG		NCP120AMX120TCG
NCP121AMX160TCG		NCP120AMX120TCG
NCP121AMX165TCG		NCP120AMX120TCG
NCP121AMX170TCG		NCP120AMX120TCG
NCP121AMX173TCG		NCP120AMX120TCG
NCP121AMX175TCG		NCP120AMX120TCG
NCP121AMX185TCG		NCP120AMX120TCG
NCP130AMX080TCG		NCP120AMX120TCG
NCP130AMX090TCG		NCP120AMX120TCG
NCP130AMX100TCG		NCP120AMX120TCG
NCP130AMX105TCG		NCP120AMX120TCG
NCP130AMX110TCG		NCP120AMX120TCG
NCP130AMX115TCG		NCP120AMX120TCG
NCP130AMX120TCG		NCP120AMX120TCG
NCP130AMX150TCG		NCP120AMX120TCG
NCP130AMX180TCG		NCP120AMX120TCG
NCP130AMX210TCG		NCP120AMX120TCG
NCP130BMX080TCG		NCP120AMX120TCG
NCP130BMX090TCG		NCP120AMX120TCG
NCP130BMX100TCG		NCP120AMX120TCG
NCP130BMX110TCG		NCP120AMX120TCG
NCP130BMX115TCG		NCP120AMX120TCG
NCP130BMX120TCG		NCP120AMX120TCG
NCP130BMX150TCG		NCP120AMX120TCG
NCP130BMX180TCG		NCP120AMX120TCG
NCP130BMX210TCG		NCP120AMX120TCG
NCP133AMX090TCG		NCP120AMX120TCG
NCP133AMX100TCG		NCP120AMX120TCG
NCP133AMX105TCG		NCP120AMX120TCG
NCP133AMX110TCG		NCP120AMX120TCG
NCP133AMX115TCG		NCP120AMX120TCG
NCP133AMX120TCG		NCP120AMX120TCG
NCP133AMX125TCG		NCP120AMX120TCG
NCP133AMX130TCG		NCP120AMX120TCG
NCP133AMX150TCG		NCP120AMX120TCG
NCP133AMX180TCG		NCP120AMX120TCG
NCP133AMXADJT	NCP133AMXADJT	NCP120AMX120TCG
NCP133BMXADJT		NCP120AMX120TCG