



Title of Change:	Lead frame raw material change from C64730 to C19400 of QFP80, TQFP100, TQFP120, TQFP128 (14X14), QFP256J(28X28), QIP100E(14X20), SQFP64(10X10), SQFP144(20X20).
Proposed first ship date:	20 May 2016
Contact information:	Contact your local ON Semiconductor Sales Office or <Takeshi2.Hoshino@onsemi.com>, <Yutaka.Okamura@onsemi.com>, <Takehito.Tsukui@onsemi.com>, <Shui chi.Takahashi@onsemi.com>, <Naoki.Koyama@onsemi.com>, <Shinya.Okada@onsemi.com>, <Ikuo.Saeki@onsemi.com>, <Hiroshi.Kojima@onsemi.com>, <Testsuya.Fukushima@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office.
Type of notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>.
Change Part Identification:	No Change of Reliability
Change category:	☐ Wafer Fab Change ☒ Assembly Change ☐ Test Change ☐ Other _____
Change Sub-Category(s):	☐ Manufacturing Site Change/Addition ☒ Material Change ☐ Datasheet/Product Doc change ☐ Manufacturing Process Change ☐ Product specific change ☐ Shipping/Packaging/Marking ☐ Other: _____
Sites Affected:	☐ All site(s) ☐ not applicable ☒ ON Semiconductor site(s) : ON Tarlac City, Philippines ☐ External Foundry/Subcon site(s)

Description and Purpose:

The reason is that the existing lead frame raw material will be end of life by 2016. We will replace the existing lead frame raw material C64730 with C19400 (C64730/C19400: ASTM code).

The table below shows comparison of mechanical and chemical properties between two materials.

Material Name		C19400(Alternative)	C64730(Existing)
Mechanical properties			
Coefficient of Thermal Expansion	X10 ⁻⁸ /K	17.6	17.0
Thermal Conductivity	W (m·K)	262	150
Electrical Resistivity	μΩm	0.025	0.049
Electrical Conductivity	%IACS	65	35
Modulus Elasticity	KN/mm ²	121	125
Chemical properties			
Cu	%	Remain	Remain
Zn	%	0.05 ~ 0.20	0.2 ~ 0.5
Pb	%	Max 0.03	None
Fe	%	2.10 ~ 2.60	None
P	%	0.01 ~ 0.15	None
Sn	%	None	1.0 ~ 1.5
Ni	%	None	2.9 ~ 3.5
Si	%	None	0.5 ~ 0.9

**Qualification Plan:**

Estimated date for qualification completion: 15 January 2016

QV DEVICE NAME :LC75056PE**PACKAGE :QIPO100**

Test	Specification	Condition	Interval
HTSL	JESD22-A103	Ta=150°C	1008 hrs
AC	JESD22-A102	Ta=121°C , 15psig	96 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
SD	JSTD002	Ta = 245°C , 10 sec	
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C	

QV DEVICE NAME :LC98800DFA**PACKAGE :QFP256**

Test	Specification	Condition	Interval
HTSL	JESD22-A103	Ta=150°C	1008 hrs
AC	JESD22-A102	Ta=121°C , 15psig	96 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
SD	JSTD002	Ta = 245°C , 10 sec	
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C	

QV DEVICE NAME :LC786961PW**PACKAGE :SQFP144**

Test	Specification	Condition	Interval
HTSL	JESD22-A103	Ta=150°C	1008 hrs
AC	JESD22-A102	Ta=121°C , 15psig	96 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
SD	JSTD002	Ta = 245°C , 10 sec	
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C	

QV DEVICE NAME :LC75040WS**PACKAGE :SQFP208**

Test	Specification	Condition	Interval
HTSL	JESD22-A103	Ta=150°C	1008 hrs
AC	JESD22-A102	Ta=121°C , 15psig	96 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc
SD	JSTD002	Ta = 245°C , 10 sec	
PC	J-STD-020 JESD-A113	MSL 3 @ 260 °C	

**List of Affected Standard Parts:**

Part Id	Qualification Vehicle
LC75056E-H	LC75056PE-H
LC79401KNE-E	LC75056PE-H
LC79430KNE-E	LC75056PE-H
LC79431KNE-E	LC75056PE-H
LC87F5N62BU-QIP-E	LC75056PE-H
LC87F5NC8AVU-QIP-E	LC75056PE-H
LC87F5VP6AU-QIP-H	LC75056PE-H
LC87F5WC8AVU-QIP-H	LC75056PE-H
LC87F6AC8ALU-EJ-H	LC75056PE-H
LC87F7DC8AVU-QIP-H	LC75056PE-H
LC87F7NC8AVUEJ-2H	LC75056PE-H
LC87F7NJ2AVUEJ-2H	LC75056PE-H
LC87F7NP6AVUEJ-2H	LC75056PE-H
LC88F58B0AU-SQFPH	LV25350PW-TLM-E
LC88FC2H0AVUTE-2H	LC823410-10S4-H
C88F83B0AU-TC-H	LC823410-10S4-H
C88F85D0AU-TC-H	LC823410-10S4-H
LC749000AT-8B15H	LC823410-10S4-H

List of Affected Customer Specific Parts:

NOTE: Please be informed that parts impacted by this PDN/PCN are Special/Customer specific parts, thus MPN & CPN info will be available to affected customers only by clicking the "[Custom PCN for Selected Company Button](#)" in the Document Analysis page of PCMS/PCN Alert.