



Title of Change:	Update to FPCN22057X - Former Fairchild TinyLogic® in SC70EP and SC88A-5 Fab Assembly Material and Assembly Location changing to SC88A-5	
Proposed first ship date:	28 June 2018	
Contact information:	Contact your local ON Semiconductor Sales Office or <Steven.Zhong@onsemi.com>	
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com>	
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Don.Knudsen@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@ON Semiconductor.com>	
Change Part Identification:	Products with date code "K" or greater may be from materials identified in table "After June 1 st 2018 Description". Products with date code "1" or greater will have materials from "Post Implementation" in table below.	
Change category:	<input checked="" type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input checked="" type="checkbox"/> Test Change <input type="checkbox"/> Other _____	
Change Sub-Category(s):	<input checked="" type="checkbox"/> Manufacturing Site Change/Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input checked="" type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input checked="" type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____	
Sites Affected:	ON Semiconductor Sites: ON Leshan, China ON Cebu Philippines ON S. Portland Maine	External Foundry/Subcon Sites: Subcon China, subcon Japan

Description and Purpose:

FPCN22057X was issued to qualify new die source in Japan for TinyLogic® and migrate SC88A-5 to ON Leshan, China assembly and test site increasing the front end and back end capacity and standardizing materials.

This Update is issued for clarification of current materials being shipped, ON Semiconductor Philippines Plating is 100% Tin. The materials matrix below has been updated.

Material to be changed	Before Change (existing flow)		After June 28th 2018 until January 1st 2019 (existing flow)		After January 1st 2019 (new flow only)	
	ON Semi Philippines	Subcon China	ON Semi Philippines	Subcon China	ON Semi China (LPS)	ON Semi China (LPS)
Wire	Au	Au	Au	Au	Cu	Cu
Mold Compound	MC GREEN PA CK5000A	MC SUMITOMO G600	MC GREEN PA CK5000A	MC SUMITOMO G600	Henkel	Henkel
Lead Frame	LF SC 88A 5L C194	LF SC70 5L Cu A194 PPF	LF SC 88A 5L C194	LF SC70 5L Cu A194 PPF	SC88A OP14	SC88A OP14
Die Attach	EPOXY ABLESTIK 84-1LMISR4	EPOXY ABLESTICK 2200D	EPOXY ABLESTIK 84-1LMISR4	EPOXY ABLESTICK 2200D	Eutectic	Eutectic
Die Source	Onsemi US Fab	Onsemi US Fab	Onsemi US Fab	Onsemi US Fab	External Fab Japan	External Fab Japan
Plating	100% Sn	Pre plated	100% Sn	Pre plated	100% Sn	100% Sn

**Reliability Data Summary:****QV DEVICE NAME:** MC74VHC1G14DFT2G**RMS** L40690**PACKAGE** SC88A (5ld)

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/288
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/252
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/297
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/273
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/234
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/804
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30

Electrical Characteristic Summary:

Electrical characteristics Available upon request.



List of affected Parts:

Product ID	Qualification Vehicle
NC7S00P5X	MC74VHC1G14DFT2G
NC7S02P5X	
NC7S04P5X	
NC7S08P5X	
NC7S14P5X	
NC7S32P5X	
NC7S86P5X	
NC7ST00P5X	
NC7ST02P5X	
NC7ST04P5X	
NC7ST08P5X	
NC7ST32P5X	
NC7ST86P5X	
NC7SU04P5X	
NC7SZ00P5X	
NC7SZ02P5X	
NC7SZ04P5X	
NC7SZ05P5X	
NC7SZ08P5X	
NC7SZ125P5X	
NC7SZ126P5X	
NC7SZ14P5X	
NC7SZ32P5X	
NC7SZ38P5X	
NC7SZ86P5X	
NC7SZU04P5X	

NOTE:

Some parts impacted by this PCN are Special/Customer specific parts, thus MPN & CPN info will be available to affected customers only by following the link on the Email notification to retrieve an addendum that contains a list of affected products specific to the company.

Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle
NC7S00P5X		MC74VHC1G14DFT2G
NC7S02P5X		MC74VHC1G14DFT2G
NC7S04P5X		MC74VHC1G14DFT2G
NC7S08P5X		MC74VHC1G14DFT2G
NC7S14P5X		MC74VHC1G14DFT2G
NC7S32P5X		MC74VHC1G14DFT2G
NC7S86P5X		MC74VHC1G14DFT2G
NC7ST00P5X		MC74VHC1G14DFT2G
NC7ST02P5X		MC74VHC1G14DFT2G
NC7ST04P5X		MC74VHC1G14DFT2G
NC7ST08P5X		MC74VHC1G14DFT2G
NC7ST32P5X		MC74VHC1G14DFT2G
NC7ST86P5X		MC74VHC1G14DFT2G
NC7SU04P5X		MC74VHC1G14DFT2G
NC7SZ00P5X		MC74VHC1G14DFT2G
NC7SZ02P5X		MC74VHC1G14DFT2G
NC7SZ04P5X		MC74VHC1G14DFT2G
NC7SZ05P5X		MC74VHC1G14DFT2G
NC7SZ08P5X		MC74VHC1G14DFT2G
NC7SZ125P5X		MC74VHC1G14DFT2G
NC7SZ126P5X		MC74VHC1G14DFT2G
NC7SZ14P5X		MC74VHC1G14DFT2G
NC7SZ32P5X		MC74VHC1G14DFT2G
NC7SZ38P5X		MC74VHC1G14DFT2G
NC7SZ86P5X		MC74VHC1G14DFT2G
NC7SZU04P5X		MC74VHC1G14DFT2G