



Title of Change:	SOIC-8 Insourcing to ON Semiconductor Philippines (OSPI) Factory from GEM, China	
Proposed first ship date:	29 October 2018	
Contact information:	Contact your local ON Semiconductor Sales Office or < ramilangelo.nonato@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 <Lalan.Ortega@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:	Product marked with date code 1812 or later may be built from current factory or from OSPI Factory. The trace code marking on Line 2 is of the form ALYW where A = Assembly Location, L = Wafer Lot ID and YW is a 2-digit date code. Product marked with "P" as the assembly location will be from OSPI. Additionally on the label of the box and reel, the ASSY LOC: PO will also indicate product assembled in OSPI. Please see sample label on Page 2 at the following URL http://www.onsemi.com/pub/Collateral/LABELRM-D.PDF to see the location of the ASSY LOC.	
Change Category:	<input 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 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 checked="" type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____	
Sites Affected:	ON Semiconductor Sites: ON Carmona, Philippines	External Foundry/Subcon Sites: GEM, China

Description and Purpose:

This Final Notification announces to customers ON Semiconductor's plans to expand Assembly and Test operations of former Fairchild SO8 Packaged products to an existing internal manufacturing site in OSPI, Philippines. This is a capacity expansion, and at the end of the FPCN approval cycle, these products may be dual sourced from either GEM, China or from OSPI, Philippines.

MOSFETs will be qualified and released with Copper wire as part of this expansion in OSPI, Philippines (as per table in List of affected parts). OSPI is certified with ISO9001:2015 and IATF 16949 and is currently running production for SO8 package and Copper Wire. These products are currently using Copper wire at GEM. These products will continue being Pb-free, Halide free and RoHS compliant. Qualification tests are designed to show that the reliability of the transferred devices will continue to meet or exceed ON Semiconductor standards.

BOM changes associated with this FPCN are shown here:

Material to be changed	GEM Bill of Materials	Carmona Bill of Materials
Lead frame	RPPF	RPPF (No change)
Mold Compound	HITACHI CEL8240HF10LYR	Sumitomo G600F
Die Attach	Henkel QMI 519	Henkel ABP8062T
Wire size and Material	2 mil Cu	2 mil Cu (No change)

Additionally, this FPCN serves to notify customers of a change in the marking for all products listed for BOTH sites, GEM and OSPI. The new marking will be of the form:



Line 1 is the Product Identification (see table for new Product IDs)

Line 2 is the Trace code with the following nomenclature: A = Assy Location, L = Wafer Lot ID, YW = 2 digit date code. The X at the end of the line is a wrap character if additional identification is needed from Line 1.

OPN	Line 1 Marking
FDS2572	FDS2572
FDS2582	FDS2582
FDS2672	FDS2672
FDS3572	FDS3572
FDS3672	FDS3672
FDS3692	FDS3692
FDS3992	FDS3992
FDS5672	FDS5672
FDS2734	FDS2734



Reliability Data Summary:

QV DEVICE NAME: FDS2572RMS: S47400PACKAGE: SOIC 8

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta = 150°C, 80% max rated V	1008 hrs	0/80
HTGB	JESD22-A108	Ta = 150°C, 100% max rated Vgss	1008 hrs	0/80
HTSL	JESD22-A103	Ta = 150°C	2016 hrs	0/80
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj = 100°C On/off = 2.0 min	30000 cyc	0/80
TC	JESD22-A104	Ta = -55°C to +150°C	2000 cyc	0/80
HAST	JESD22-A110	130°C, rh, 85%, 18.8 psig, bias	1008 hrs	0/80
uHAST	JESD22-A118	130°C, 85% RH, 18.8 psig, unbiased	192 hrs	0/80
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	-	0/320
SAT	JEDEC STD 035	Pre and Post MSL 1	-	0/25
RSH	JESD22-B106	Ta = 265C, 10 sec	-	0/30
SD	JSTD002	Ta = 245C, 10 sec	-	0/15
PD	JESD22-B100	Per POD, case 751EB	-	0/30
CDPA	MILSTD750 Method 2037	Wire Pull after TC1000 cycles	-	0/5
DPA	AEC Q101-004 Section 4	Destructive Physical Analysis after TC1000 cycles	-	0/2
ED	Tri Temperature Characterization, Per 48A	Temp at 25°C, -55°C, 150°C with Thermal Resistance (Rth)	-	Passed

QV DEVICE NAME: FDS2734RMS: O41392PACKAGE: SOIC 8

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta = 150°C, 80% max rated V	1008 hrs	0/80
HTGB	JESD22-A108	Ta = 150°C, 100% max rated Vgss	1008 hrs	0/80
HTSL	JESD22-A103	Ta = 150°C	2016 hrs	0/80
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj = 100°C On/off = 2.0 min	22,500 cyc	0/80
TC	JESD22-A104	Ta = -55°C to +150°C	2000 cyc	0/80
HAST	JESD22-A110	130°C, 85% RH, 18.8 psig, bias	192 hrs	0/80
uHAST	JESD22-A118	130°C, 85% RH, 18.8 psig, unbiased	192 hrs	0/80
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	-	0/320
SAT	JEDEC STD 035	Pre and Post MSL 1	-	0/25
RSH	JESD22-B106	Ta = 265C, 10 sec	-	0/30
SD	JSTD002	Ta = 245C, 10 sec	-	0/15
PD	JESD22-B100	Per POD, case 751EB	-	0/30
CDPA	MILSTD750 Method 2037	Wire Pull after TC1000 cycles	-	0/5
CDPA	MILSTD750 Method 2037	Wire Pull after HTSL 1008hrs	-	0/5
CDPA	AEC -006	Custom Destructive Physical Analysis after TC1000 cycles	-	0/2
ED	Tri Temperature Characterization, Per 48A	Temp at 25°C, -55°C, 150°C with Thermal Resistance (Rth)	-	Passed



QV DEVICE NAME: FDS86240
 RMS: P42846, O41790, P40040
 PACKAGE: SOIC 8

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta = 150°C, 80% max rated V	1008 hrs	0/80
HTGB	JESD22-A108	Ta = 150°C, 100% max rated Vgss	1008 hrs	0/80
HTSL	JESD22-A103	Ta = 150°C	2016 hrs	0/80
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2.0 min	30000 cyc	0/80
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/80
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/80
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	192 hrs	0/80
PC	J-STD-020 JESD-A113	MSL 1 @260°C	-	0/320
SAT	JEDEC STD 035	Pre and Post MSL 1	-	0/22
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30
SD	JSTD002	Ta = 245C, 10 sec	-	0/15
PD	JESD22-B100	Per POD, case 751EB	-	0/30
CDPA	MILSTD750 Method 2037	Wire Pull after TC1000 cycles	-	0/5
DPA	AEC Q101-004 Section 4	Destructive Physical Analysis after TC1000 cycles	-	0/2
ED	Tri Temperature Characterization, Per 48A	Temp at 25°C, -55°C, 150°C with Thermal Resistance (Rth)	-	Passed

Electrical Characteristic Summary:

The temperature characterization meets datasheet specification. Electrical characteristics are not impacted. Detail of Electrical characterization result is available upon request.

List of Affected Parts:

Part Number	Qualification Vehicle
FDS2572	FDS2572
FDS2582	FDS2572
FDS2672	FDS2572
FDS3572	FDS2572
FDS3672	FDS2572
FDS3692	FDS2572
FDS3992	FDS2572
FDS5672	FDS2572
FDS2734	FDS2734

Appendix A: Changed Products

DIKG : DIGI-KEY

Product	Customer Part Number	Qualification Vehicle
FDS2572		FDS2572
FDS2582		FDS2572
FDS2672		FDS2572
FDS2734		FDS2734
FDS3572		FDS2572
FDS3672		FDS2572
FDS3692		FDS2572
FDS3992		FDS2572
FDS5672		FDS2572