ON Semiconductor

Final Product/Process Change Notification

Document # : FPCN20904X
Issue Date: 27 May 2015

Title of Change:	Addition of ASE Shanghai, China as qualified assembly site for QFN devices.
Proposed first ship date:	3 September 2015
Contact information:	Contact your local ON Semiconductor Sales Office or Norhayati Othman <norhayati.othman@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or Chean Ching Sim <Cheanching.sim@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 approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <PCN.Support@onsemi.com>.
Change Part Identification:	**Marking of the month date codes:** Seremban Malaysia assembled devices: M ASE Shanghai assembled devices: 

Change category(s):

- ☐ Wafer Fab Change
- ☒ Assembly Change
- ☐ Test Change
- ☐ Manufacturing Site Change/Addition
- ☐ Manufacturing Process Change
- ☐ Material Change
- ☐ Product specific change
- ☐ Datasheet/Product Doc change
- ☐ Shipping/Packaging/Marking
- ☐ Other: _____

Sites Affected:	Site 1	Site 2
☐ All site(s) ☐ not applicable ☐ ON Semiconductor site(s) : ☒ External Foundry/Subcon site(s):	Advanced Semiconductor Engineering Shanghai	

Description and Purpose:

This is the final notification announcing that ON Semiconductor is qualifying an additional assembly site for the list of QFN products included in this notification (please refer to the "List of Affected Standard Parts" section for the complete device list). The additional assembly site is the ASE Shanghai factory located in China. This facility is ISO/TS16949:2009 certified and has already been qualified and utilized by ON Semiconductor.

Two devices have been identified as qualification vehicles, based on the package dimension, die size and volumes. Full electrical characterization over temperature on all devices was performed to ensure that device functionality and electrical specifications are met.

Upon expiration or approval of the FPCN, devices listed in this final PCN will have ASE Shanghai as an additional assembly site. Customers may receive devices assembled at either our in-house Seremban, Malaysia assembly site or ASE Shanghai assembly site after that time.

There is a difference in mold compound and lead finish for the ASE Shanghai assembly site that is identified below. The location of the assembly site can be identified by the date code marking (see "Changed Part Identification" section for details).

Lead Finish Difference:

1. Seremban: Matte Tin (e3 – on the device label)

2. ASE: NiPdAu (e4 – on the device label)

Mold compound Difference:

1. Seremban: Sumitomo G760

2. ASE: G631HQ

Reliability Data Summary:

Package: **UDFN10**
Qual Vehicle: **ESD8004MUTAG**

Qualification Results and Analysis:

Test	Conditions	Interval	Results
HTRB	TA=150C, 80% Rated Voltage	1008 hrs	0/672
SAT	NA	NA	Pass

Conclusion: All reliability requirements have been met.

Package: **UDFN10**
Qual Vehicle: **ESD8104MUTAG**

Qualification Results and Analysis:

Test	Conditions	Interval	Results
HTRB	TA=150C, 80% Rated Voltage	1008 hrs	0/672
SAT	NA	NA	Pass

Conclusion: All reliability requirements have been met.

Electrical Characteristic Summary:
No changes in electrical specifications; all product performance meets current datasheet specifications.

List of affected Standard Parts:

Device	SBN	ASE
ESD8004MUTAG	E	N
ESD8104MUTAG	E	N
ESD8006MUTAG	E	N
ESD8008MUTAG	E	N
ESD8004TMUTAG	E	N
ESD8040MUTAG	E	N
ESD8106MUTAG	E	N
ESD7504MUTAG	E	N
ESD7408MUTAG	E	N

Note: E – Existing Assembly Site
N – New Assembly Site