



Integrated Device Technology, Inc.
6024 Silver Creek Valley Road, San Jose, CA - 95138

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: A1402-04 DATE: 22-May-2014 Product Affected: VFQFPN-20, VFQFPN-24 Refer to Attachment II for the affected part numbers Date Effective: 22-Aug-2014	MEANS OF DISTINGUISHING CHANGED DEVICES: <input type="checkbox"/> Product Mark Lot # will have: <input checked="" type="checkbox"/> Back Mark "CL" prefix for ASECL, Taiwan <input type="checkbox"/> Date Code <input type="checkbox"/> Other
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Contact: IDT PCN DESK E-mail: pcndesk@idt.com	Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Samples: Please contact your local sales representative for sample request.
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DESCRIPTION AND PURPOSE OF CHANGE:

<input type="checkbox"/> Die Technology	This notification is to advise our customers that IDT is adding ASE Chungli, Taiwan (ASECL) as alternate Assembly and Test facilities.
<input type="checkbox"/> Wafer Fabrication Process	
<input type="checkbox"/> Assembly Process	
<input type="checkbox"/> Equipment	There is no change to the moisture performance.
<input type="checkbox"/> Material	
<input type="checkbox"/> Testing	Attachment I details the qualification data for this change and Attachment II shows the affected list of part numbers.
<input checked="" type="checkbox"/> Manufacturing Site	
<input type="checkbox"/> Data Sheet	
<input type="checkbox"/> Other	

RELIABILITY/QUALIFICATION SUMMARY:
Refer to qualification data shown in Attachment I.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:
 IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.
 IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: _____	<input type="checkbox"/> <i>Approval for shipments prior to effective date.</i>
Name/Date: _____	E-Mail Address: _____
Title: _____	Phone# /Fax# : _____

CUSTOMER COMMENTS: _____

IDT ACKNOWLEDGMENT OF RECEIPT:
 RECD. BY: _____ DATE: _____



PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT I - PCN # : A1402-04

PCN Type: Manufacturing Site - Alternate Assembly & Test Locations
Data Sheet Change: None
 No change in moisture sensitivity level (MSL)

Detail Of Change:

This notification is to advise our customers that IDT is adding ASE Chungli, Taiwan (ASECL) as alternate Assembly and Test facilities. Presently, ASECL is a qualified IDT Subcontractors.

This change will allow IDT the flexibility to ship from either facility and will provide the increased capacity, flexibility and shorter lead time to meet market demand.

The material set details of the current and alternate assembly location is as shown in Table 2. The die attach and mold compound used at the alternate assembly are qualified IDT materials. There is no change from the existing qualified lead frame material, lead finish, and wire for the alternate assembly location.

There is no change to the moisture performance.

There is also no change in the Test processing flows. Testers, load boards and test programs are compatible at the qualified facilities. IDT has completed the electrical test correlation and based on the test results we do not anticipate any impact on device performance. The testing is fully compatible and transferrable between the test facilities with no change to the test coverage.

Table 1: The Existing and Alternate Assembly & Test Locations

	Existing Assembly & Test	Alternate Assembly & Test
Package	ATK - Amkor, Korea	ASECL - ASE, Taiwan
VFQFPN-20 VFQFPN-24	X	X

Note: X denote qualified assembly & test location

Table 2: Assembly Material Sets for The Existing and Alternate Assembly Locations

	Existing Assembly	Alternate Assembly
Material Set / Assembly	ATK - Amkor, Korea	ASECL - ASE, Taiwan
Die Attach	CRM1085A	EN4900
Wire	PdCu wire	PdCu wire
Mold Compound	G700, G631BQF	G700 LA



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Qualification Information and Qualification Data:

Part I - Assembly Qual Results

Affected Packages: VFQFPN-20, VFQFPN-24

Assembly Material: The affected package type is using ASECL standard materials shown on page 2 of this attachment.

Qual Plan & Results: Tests are in accordance with JEDEC47 recommended tests.

Qualification Vehicle: VFQFPN-20 (1 lot)

Test Description	Test Method	Test Results (Rej / SS)
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/30
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/30
High Temperature Storage Test (150°C, 1000 hours)	JESD22-A103	0/30

* Tests were subjected to Preconditioning per JESD22-A113 prior to stress test



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Qualification Information and Qualification Data:

Part II - Electrical Test Correlation Results

Vehicle: F1950NBGI

Sample size: 496 electrically good units and 10 reject units

Description	Existing Test (ATK - Amkor, Korea)	Alternate Test (ASECL - ASE, Taiwan)
Tester Platform	Catalyst	Catalyst
Loadboard	F1950	F1950
Test Program	IDT1950_08	IDT1950_09 ¹
Test Site	Dual site	Dual site
Test Temperature	Ambient	Ambient
Test Correlation Results	100%	100%
Number of Good Units Correlated @ ambient	496 pcs	496 pcs
496 units Bin 1 handler run (good units)	Passed	Passed
Number of Reject Units Correlated @ ambient	10 pcs	10 pcs
10 units rejects handler run	Passed	Passed
496 units Bin 1 datalog correlation (good units)	Passed	Passed
10 units rejects datalog correlation	Passed	Passed

Note: ¹ Revision 09 was removed T3000 to T3014. These tests should not be included in the final production test.

They were included originally just for data collection purposes.



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PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT II - PCN # : A1402-04

Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
F1701NBGI	F1751NBGI8	F1950NBGI	F1951NBGI8
F1701NBGI8	F1763NBGI	F1950NBGI8	F1953NCGI
F1751NBGI	F1763NBGI8	F1951NBGI	F1953NCGI8