



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: <b>A1311-03</b>	DATE: <b>4-Dec-2013</b>	MEANS OF DISTINGUISHING CHANGED DEVICES:
Product Affected: VFQFPN-64, 68, 72 (Refer to Attachment II)		<input type="checkbox"/> Product Mark <input checked="" type="checkbox"/> Back Mark      Lot# will have a <input type="checkbox"/> Date Code      "U" prefix for UTAC Thailand (UTL) <input type="checkbox"/> Other      "R" prefix for ASE Taiwan (ASEK)
Date Effective: <b>4-Mar-2014</b>		

Contact: IDT PCN DESK	Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E-mail: <a href="mailto:pcndesk@idt.com">pcndesk@idt.com</a>	Samples: Please contact your local sales representative for sample request.

### DESCRIPTION AND PURPOSE OF CHANGE:

- Die Technology
  - Wafer Fabrication Process
  - Assembly Process
  - Equipment
  - Material
  - Testing
  - Manufacturing Site
  - Data Sheet
  - Other
- This notification is to advise our customers that IDT is adding UTAC, Thailand (UTL) and ASE, Taiwan (ASEK) as alternate assembly facilities. Both UTL and ASEK are qualified IDT Subcontractors.
- There is no change to the moisture performance.
- Attachment I details the qualification data for this change and Attachment II shows the affected list of part numbers.

### 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 # : A1311-03

**PCN Type:** Manufacturing Site - Alternate Assembly Location  
**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 UTAC, Thailand (UTL) and ASE, Taiwan (ASEK) as alternate assembly facilities. Both UTL and ASEK are qualified IDT Subcontractors.

The material set details of the current Assembly locations is shown in the table below. The die attach and mold compound used at the alternate sites are qualified IDT materials. There is no change from the existing qualified lead frame material, lead finish, and wire for these alternate assembly sites.

IDT has devices being transferred that are currently qualified at the original assembly sites using both Cu and Au for wire bonds. There will be no change in wire type as a result of this PCN. Customers ordering and receiving Au wire will continue to receive Au wire. Customers ordering and receiving Cu wire will continue to receive Cu wire.

There is no change to the moisture performance of these packages.

Table 1: Additional Assembly Sites

Package	Existing Assembly		Alternate Assembly	
	PTU - Unisem Batam, Indonesia	CHM - ChipMos, Taiwan	UTL - UTAC, Thailand	ASEK - ASE, Taiwan
VFQFPN-64	X	X	X	X
VFQFPN-72				
VFQFPN-68	X		X	X

Note: X denote qualified assembly site

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

Material Set / Assembly	PTU - Unisem Batam, Indonesia	CHM - ChipMos, Taiwan	UTL - UTAC, Thailand	ASEK - ASE, Taiwan
VFQFPN-64				
Die Attach	CRM1066C	Hitachi EN4900F-1GC	8600	EN4900F
Wire	Au & Cu wire	Au & Cu wire	Au & Cu wire	Au & Cu wire
Mold Compound	G770HP	Sumitomo G770G	EME-G770HCD	G631H
VFQFPN-68				
Die Attach	CRM1066C	N/A	8600	EN4900F
Wire	Au wire	N/A	Au & Cu wire	Cu wire
Mold Compound	G770HP	N/A	EME-G770HCD	G700LA
VFQFPN-72				
Die Attach	CRM1066C	Hitachi EN4900F-1GC	8600	EN4900F
Wire	Au & Cu wire	Au & Cu wire	Au & Cu wire	Au & Cu wire
Mold Compound	G770HP	Sumitomo G770G	EME-G770HCD	G631H



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### ATTACHMENT I - PCN # : A1311-03

#### Qualification Information and Qualification Data:

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

**Affected Packages:** VFQFPN-64, 68, 72

**Assembly Material:** The affected package type is using UTL standard materials shown on page 1 of this attachment.

**Qualification Vehicle:** VFQFPN-64, VFQFPN-72

Test Description	Test Method	Qual# / Wire Type		
		KP9PPA16 / Au wire	KP9PPA15 / Au wire	UP2PPC77 / Cu wire
		Rej / SS	Rej / SS	Rej / SS
* HAST - biased (130 °C/85% RH, 100 Hrs)	JESD22-A110	0 / 45	0 / 45	0 / 30
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0 / 45	0 / 45	0 / 30
High Temperature Storage Test (150°C, 1000 hours)	JESD22-A103	0 / 77	0 / 77	0 / 30
Moisture Sensitivity Classification (Level 3, 260°C)	J-STD-020	0 / 45	0 / 45	0 / 30

**Affected Packages:** VFQFPN-64, 68, 72

**Assembly Material:** The affected package type is using ASEK standard materials shown on page 1 of this attachment.

**Qualification Vehicle:** VFQFPN-72

Test Description	Test Method	Qual# / Wire Type	
		NP3PPA14 / Au wire	NP3PPA12 / Cu wire
		Rej / SS	Rej / SS
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0 / 30	0 / 30
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0 / 30	0 / 30
High Temperature Storage Test (150°C, 1000 hours)	JESD22-A103	0 / 25	0 / 30
Moisture Sensitivity Classification (Level 3, 125°C)	J-STD-020	0 / 25	0 / 25

Note:

\* Test requires moisture pre-conditioning sequence per JESD22-A113 prior to stress test



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT II - PCN # : A1311-03

#### Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
5T9820NLGI	932S310AKLF	954326AKLF	9FG1903AK-2LFT
5T9820NLGI8	932S310AKLFT	954326AKLFT	9FG1903AKLF
5T9821NLGI	932S509EKLF	96Z61027BKLF	9FG1903AKLFT
5T9821NLGI8	932S509EKLFT	96Z61027BKLFT	9FG1903CKLF
5T9890NLGI	932S509HKLF	9DB1904BKLF	9FG1903CKLFT
5T9890NLGI8	932S509HKLFT	9DB1904BKLFT	9FG1904BK-1LF
5T9891NLGI	932S820CKLF	9DB1933AKLF	9FG1904BK-1LFT
5T9891NLGI8	932S820CKLFT	9DB1933AKLFT	9FGL1214AKLF
6T49278BNLGI	932S890CKLF	9EPRS488CKLF	9FGL1214AKLFT
6T49278BNLGI8	932S890CKLFT	9EPRS488CKLFT	9FGL1218AKLF
813N252AKI-46LF	932SQ420DKLF	9ERS3165BKILF	9FGL1218AKLFT
813N252AKI-46LFT	932SQ420DKLFT	9ERS3165BKILFT	9FGL1220AKLF
82V32021NLG	932SQ423AKLF	9ERS3165BKLF	9FGL1220AKLFT
82V32021NLG8	932SQ423AKLFT	9ERS3165BKLFT	9FGL1222AKLF
82V3202NLG	932SQ432AKLF	9EX21501AKILF	9FGL1222AKLFT
82V3202NLG8	932SQ432AKLFT	9EX21501AKILFT	9LPR228BKLF
82V3202NLG8-TSW	932SQ432AKLFT-IB0	9EX21501AKLF	9LPR228BKLFT
82V3203ANLG	932SQ433AKLF	9EX21501AKLFT	9LPR309AKLF
82V3203ANLG8	932SQ433AKLFT	9EX21801AKILF	9LPR309AKLFT
82V3203BNLG	932SQL435AKLF	9EX21801AKILFT	9LPR309BKLF
82V3203BNLG8	932SQL435AKLFT	9EX21801AKLF	9LPR309BKLFT
82V3395BNLG	932SQL436AKLF	9EX21801AKLFT	9LPR311AKLF
82V3395BNLG8	932SQL436AKLFT	9EX21831AKLF	9LPR311AKLFT
82V3396NLG	954302AKLF	9EX21831AKLFT	9LPR311BKLF
82V3396NLG8	954302AKLFT	9FG1900AK-1LF	9LPR311BKLFT
82V3398NLG	954305BKLF	9FG1900AK-1LFT	9LPR321BKLF
82V3398NLG8	954305BKLFT	9FG1900AK-2LF	9LPR321BKLFT
82V3399BNLG	954305CKLF	9FG1900AK-2LFT	9LPR325AKLF
82V3399BNLG8	954305CKLFT	9FG1900BK-1LF	9LPR325AKLFT
8413S12BKI-100LF	954305DKLF	9FG1900BK-1LFT	9LPR325CKLF
8413S12BKI-100LFT	954305DKLFT	9FG1901CKLF	9LPR325CKLFT
8413S12BKI-126LF	954305DKLFT-TRQ1	9FG1901CKLFT	9LPR333CKLF
8413S12BKI-126LFT	954305EKLF	9FG1901EKLF	9LPR333CKLFT
8413S12BKILF	954305EKLFT	9FG1901EKLFT	9LPR335BKLF
8413S12BKILFT	954305EKLFT-TRQ	9FG1901HKLF	9LPR335BKLFT
8V41N012NLGI	954309AKLF	9FG1901HKLFT	9LPR335CKLF
8V41N012NLGI8	954309AKLFT	9FG1902AKLF	9LPR335CKLFT
8V89307BNLG	954309BKLF	9FG1902AKLFT	9LPR336AKLF
8V89307BNLG8	954309BKLFT	9FG1903AK-1LF	9LPR336AKLFT
8V89309NLG	954315AKLF	9FG1903AK-1LFT	9LPR350AKLF
8V89309NLG8	954315AKLFT	9FG1903AK-2LF	9LPR350AKLFT



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Part Number	Part Number	Part Number	Part Number
9LPR390CKLF	9LPRS388AKLF	9LPRS478CKLFT	9LRS3165BKILF
9LPR390CKLFT	9LPRS388AKLFT	9LPRS480AKLF	9LRS3165BKILFT
9LPR515BKLF	9LPRS390CKLF	9LPRS480AKLFT	9LRS3165BKLF
9LPR515BKLFT	9LPRS390CKLFT	9LPRS480BKLF	9LRS3165BKLFT
9LPR515CKLF	9LPRS392BKLF	9LPRS480BKLFT	9LRS3169BKILF
9LPR515CKLFT	9LPRS392BKLFT	9LPRS488BKLF	9LRS3169BKILFT
9LPR800AKLF	9LPRS395CKLF	9LPRS488BKLFT	9LRS3169BKLF
9LPR800AKLFT	9LPRS395CKLFT	9LPRS488CKLF	9LRS3169BKLFT
9LPRS113AKLF	9LPRS397DKLF	9LPRS488CKLFT	9LRS4850AKLF
9LPRS113AKLFT	9LPRS397DKLFT	9LPRS501PKLF	9LRS4850AKLFT
9LPRS133BKLF	9LPRS397EKLF	9LPRS501PKLFT	9LVRS100CKLF
9LPRS133BKLFT	9LPRS397EKLFT	9LPRS501SKLF	9LVRS100CKLFT
9LPRS134BKLF	9LPRS470BKLF	9LPRS501SKLFT	9LVRS387AKLF
9LPRS134BKLFT	9LPRS470BKLFT	9LPRS528BKLF	9LVRS387AKLFT
9LPRS139AKLF	9LPRS471AKLF	9LPRS528BKLF/W	9LVRS720BKLF
9LPRS139AKLFT	9LPRS471AKLFT	9LPRS528BKLFT	9LVRS720BKLFT
9LPRS140CKLF	9LPRS471CKLF	9LPRS528CKLF	9VRS4813AKLF
9LPRS140CKLFT	9LPRS471CKLFT	9LPRS528CKLF/W	9VRS4813AKLFT
9LPRS228CKLF	9LPRS472AKLF	9LPRS528CKLFT	9VRS4813BKLF
9LPRS228CKLF/W	9LPRS472AKLFT	9LPRS910BKLF	9VRS4813BKLFT
9LPRS228CKLFT	9LPRS472BKLF	9LPRS910BKLFT	9VRS4818AKLF
9LPRS319CKLF	9LPRS472BKLFT	9LPRS914EKLF	9VRS4818AKLFT
9LPRS319CKLFT	9LPRS473CKLF	9LPRS914EKLFT	9VRS4818BKLF
9LPRS319DKLF	9LPRS473CKLFT	9LPRS914HKLF	9VRS4818BKLFT
9LPRS319DKLFT	9LPRS474DKLF	9LPRS914HKLFT	9VRS4883BKLF
9LPRS325AKLF	9LPRS474DKLFT	9LPRS918BKLF	9VRS4883BKLFT
9LPRS325AKLFT	9LPRS476DKLF	9LPRS918BKLFT	9ZML1231BKLF
9LPRS325BKLF	9LPRS476DKLFT	9LPRS918HKLF	9ZML1231BKLFT
9LPRS325BKLFT	9LPRS476EKLF	9LPRS918HKLFT	9ZML1231BKLFT-IB0
9LPRS325CKLF	9LPRS476EKLFT	9LPRS918JKLF	9ZML1232BKLF
9LPRS325CKLFT	9LPRS476HKLF	9LPRS918JKLFT	9ZML1232BKLFT
9LPRS355BKLF	9LPRS476HKLFT	9LPRS919BKLF	9ZX21201AKLF
9LPRS355BKLFT	9LPRS477BKLF	9LPRS919BKLFT	9ZX21201AKLFT
9LPRS356AKLF	9LPRS477BKLFT	9LPRS919HKLF	9ZX21201BKLF
9LPRS356AKLFT	9LPRS477CKLF	9LPRS919HKLFT	9ZX21201BKLFT
9LPRS357AKLF	9LPRS477CKLFT	9LPRS919JKLF	9ZX21207BKLF
9LPRS357AKLFT	9LPRS477DKLF	9LPRS919JKLFT	9ZX21207BKLFT
9LPRS365BKLF	9LPRS477DKLFT	9LPRS928AKLF	9ZX21501BKLF
9LPRS365BKLFT	9LPRS478AKLF	9LPRS928AKLFT	9ZX21501BKLFT
9LPRS387BKLF	9LPRS478AKLFT	9LPRS929AKLF	9ZX21501CKLF
9LPRS387BKLFT	9LPRS478CKLF	9LPRS929AKLFT	9ZX21501CKLFT



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Part Number	Part Number	Part Number	Part Number
9ZX21502AKLF	9ZX21902AKLF	9ZXL1251AKLF	CLK503J45KLFT
9ZX21502AKLFT	9ZX21902AKLFT	9ZXL1251AKLFT	CLK503J45KLFT-TRQ
9ZX21901BKLF	9ZX21903AKLF	9ZXL1530BKLF	CLK503J45KLFT-TRQ1
9ZX21901BKLFT	9ZX21903AKLFT	9ZXL1530BKLFT	CV145NLG
9ZX21901BKLFT-INT	9ZX21907BKLF	9ZXL1930BKLF	CV145NLG8
9ZX21901BKLFT-SUN	9ZX21907BKLFT	9ZXL1930BKLFT	VPP1420NLG
9ZX21901CKLF	9ZXL1231AKLF	9ZXL1932AKLF	VPP1420NLG8
9ZX21901CKLFT	9ZXL1231AKLFT	9ZXL1932AKLFT	VPP1606NLG
9ZX21901CKLFT-INT	9ZXL1231AKLFT-INT	CLK503J45KLF	VPP1606NLG8