



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>A1402-02</b> <b>DATE:</b> <b>30-Sep-2014</b> <b>Product Affected:</b> TQFP-32, TQFP-48, TQFP-64, TQFP-80, TQFP-128, LQFP-48, LQFP-52, LQFP-100, VFQFPN-56 Refer to Attachment II for the affected part numbers  <b>Date Effective:</b> <b>30-Dec-2014</b>	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b>  <input type="checkbox"/> Product Mark                      Lot # will have: <input checked="" type="checkbox"/> Back Mark                            "P" prefix for Amkor Philippines <input type="checkbox"/> Date Code                            "R" prefix for ASE, Taiwan <input type="checkbox"/> Other
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<b>Contact:</b> IDT PCN DESK <b>E-mail:</b> <a href="mailto:pcndesk@idt.com">pcndesk@idt.com</a>	<b>Attachment:</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <b>Samples:</b> 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 Amkor Philippines (ATP) and ASE Taiwan (ASEK) as alternate assembly 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 # : A1402-02

**PCN Type:** Manufacturing Site - Alternate Assembly 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 Amkor Philippines (ATP) and ASE Taiwan (ASEK) as alternate assembly facilities.

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 assembly facilities are qualified IDT materials. There is no change from the existing qualified lead frame material, lead finish, and wire for the 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.

Table 1: Material Sets for The Existing and Alternate Assembly Sites

Package	Existing Assembly		Alternate Assembly	
	ATK - Amkor, Korea	CHM-ChipMos, Taiwan	ATP - Amkor, Philippines	ASEK - ASE, Taiwan
TQFP-32 TQFP-48 TQFP-64 TQFP-80	X		X	
TQFP-128		X	X	
LQFP-48 LQFP-52 LQFP-100	X		X	
VFQFPN-56	X			X

*Note: X denote qualified assembly site*



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

	Existing Assembly		Alternate Assembly	
Material Set / Assembly	ATK - Amkor, Korea	CHM-ChipMos, Taiwan	ATP - Amkor, Philippines	ASEK - ASE, Taiwan
TQFP-32,TQFP-48,TQFP-64,TQFP-80,LQFP-48,LQFP-52,LQFP-100				
Die Attach	Ablestik 3230		Ablestik 3230	
Wire	Au Wire		Au Wire	
Mold Compound	G700L		G700L	
TQFP-128				
Die Attach		EN4900F	Ablestik 3230	
Wire		Au Wire	Au Wire	
Mold Compound		CEL9200HF	G700Y	
VFQFPN-56				
Die Attach	Ablestik 8290			EN4900
Wire	Au Wire			Au Wire, Cu Wire
Mold Compound	G700			G631H



## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT I - PCN # : A1402-02

#### Qualification Information and Qualification Data:

**Affected Packages:** TQFP-32,TQFP-48,TQFP-64,TQFP-80,LQFP-48,LQFP-52,LQFP-100, TQFP-128

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

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

**Qualification Vehicle:** TQFP-128, TQFP-64

Test Description	Test Method	Qual# / Wire Type
		P13-07-08, P13-11-05, P14-02-01 / Au wire
		Rej / SS
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0 / 89 <sup>1</sup>
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0 / 90
High Temperature Storage Test (150°C, 1000 hours)	JESD22-A103	0 / 89 <sup>1</sup>
Moisture Sensitivity Classification (Level 3, 260°C)	J-STD-020	0 / 50

Note:

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

<sup>1</sup>1 unit mechanical reject



**PRODUCT/PROCESS CHANGE NOTICE (PCN)**

**ATTACHMENT I - PCN # : A1402-02**

**Qualification Information and Qualification Data:**

**Affected Packages:** VFQFPN-56

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

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

**Qualification Vehicle:** VFQFPN-56

Test Description	Test Method	Qual# / Wire Type	
		P12-11-08 / Au wire	P12-11-08 / Cu wire
		Rej / SS	Rej / SS
* HAST - biased (130 °C/85% RH, 168 Hrs)	JESD22-A110	0 / 90	0 / 90
* Temperature Cycling (-55°C to 125°C, 1000 cycles)	JESD22-A104	0 / 90	0 / 90
High Temperature Storage Test (150°C, 1000 hours)	JESD22-A103	0 / 90	0 / 90
Moisture Sensitivity Classification (Level 3, 260°C)	J-STD-020	0 / 50	0 / 50

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 # : A1402-02

#### Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
5V9885TPFGI	83210AYLFT	8430S803BYILF	853S111BYILF
5V9885TPFGI8	8344AY-01LF	8430S803BYILFT	853S111BYILFT
5V9888TPFGI	8344AY-01LFT	843207BY-350LF	8701CYILF
5V9888TPFGI8	8344AYI-01LF	843207BY-350LFT	8701CYILFT
71321LA55PPGI	8344AYI-01LFT	843S06FYLF-ECI	8702BYLF
71321LA55PPGI8	8344BYLF	844008BYI-15LF	8702BYLFT
74SSTVF16859NLG/W	8344BYLFT	844008BYI-15LFT	872S06AYLF
82V2082PFG8-ECI	83918AYILF	849S625BYILF	872S06AYLFT
82V3255EDG	83918AYILFT	849S625BYILFT	873996AYLF
82V3255EDG8	83940DYILF-MER	851010AYILF	873996AYLFT
82V3280EQG	840S05AYILF	851010AYILFT	874328BYI-01LF
82V3280EQG8	840S05AYILFT	851021AYLF	874328BYI-01LFT
82V3285EQG	840S07BYILF	851021AYLFT	87608AYILFT-IB0
82V3285EQG8	840S07BYILFT	8516FYILF	87973DYI-147LF
82V3358EDG	841N151BY-01LF	8516FYILFT	87973DYI-147LFT
82V3358EDG8	841N151BY-01LFT	8520DYLF	879893AYILF
82V3380AEQG	841N251CY-01LF	8520DYLFT	879893AYILFT
82V3380AEQG8	841N251CY-01LFT	8521AYI-03LNT-IB0	89HMPEB383ZAEMG
82V3380EQG8-ECI	843034AY-01LF	8534AY-01LF	89HMPEB383ZAEMG8
82V3385EQG	843034AY-01LFT	8534AY-01LFT	8V41N351Y-01LF
82V3385EQG8	8430S10AYILF	85352AYILF	8V41N351Y-01LF8
82V3389BEQG	8430S10AYILFT	85352AYILFT	8V54816NLG
82V3389BEQG8	8430S10BYI-02LF	8537AY-01LF	8V54816NLG8
82V3391BEQG	8430S10BYI-02LFT	8537AY-01LFT	SSTVF16859BKLF/W
82V3391BEQG8	8430S10BYI-03LF	853S024AYLF	
83210AYLF	8430S10BYI-03LFT	853S024AYLFT	