



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

<b>PCN #:</b> <b>A1711-01</b> <b>DATE:</b> <b>12-Feb-2018</b> <b>Product Affected:</b> VFQFPN packages (Refer to Attachment II for the affected part numbers)  <b>Date Effective:</b> <b>12-May-2018</b>	<b>MEANS OF DISTINGUISHING CHANGED DEVICES:</b> <input type="checkbox"/> Product Mark <input checked="" type="checkbox"/> Back Mark                      Lot # will have: <input type="checkbox"/> Date Code                      "RC" prefix for ASECL, 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 & availability.
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**DESCRIPTION AND PURPOSE OF CHANGE:**

<input type="checkbox"/> Die Technology <input type="checkbox"/> Wafer Fabrication Process <input type="checkbox"/> Assembly Process <input type="checkbox"/> Equipment <input checked="" type="checkbox"/> Material <input type="checkbox"/> Testing <input checked="" type="checkbox"/> Manufacturing Site <input type="checkbox"/> Data Sheet <input type="checkbox"/> Other	<p>This notification is to advise our customers that IDT is adding ASECL, Taiwan as an alternate assembly facility for parts that are currently assembled at UTL, Thailand.</p> <p>There is no change to the moisture performance.</p> <p>Attachment I details the qualification results. Attachment II shows the affected part numbers.</p>
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**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 # : A1711-01

**PCN Type:** Manufacturing Site - Alternate Assembly Location & Change in Assembly Materials  
**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 ASECL, Taiwan as an alternate assembly facility for parts that are currently assembled at UTL, Thailand.

The material set details of the current and alternate assembly location is as shown in Table 1.

There is no change to the moisture performance.

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

Material Description	Existing Assembly (UTAC, Thailand)	Alternate Assembly (ASECL, Taiwan)
Package: VFQFPN-20 (NTG20)		
DA material	8200T	EN4900G
Wire bonding material	Gold wire	Gold wire
Mold compound material	G770HCD	G700LA
Package: VFQFPN-10 (NBG10)		
DA material	8200T	EN4900G
Wire bonding material	Gold wire, Copper wire	Gold wire, Copper wire
Mold compound material	G770HCD	G700LA
Package: VFQFPN-32 (NBG32)		
DA material	8600	EN4900G
Wire bonding material	Copper wire	Copper wire
Mold compound material	G770HCD, G700LTD	G700LA
Package: VFQFPN-20 (NDG20)		
DA material	8006NS / 8600	EN4900G/ ATB-125 film
Wire bonding material	Gold wire, Copper wire	Copper wire
Mold compound material	G770HCD	G700LA
Package: VFQFPN-28 (NDG28)		
DA material	8600	EN4900G
Wire bonding material	Gold wire	Copper wire
Mold compound material	G770HCD	G700LA



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### ATTACHMENT I - PCN # : A1711-01

Material Description	Existing Assembly (UTAC, Thailand)	Alternate Assembly (ASECL, Taiwan)
Package: VFQFPN-40 (NDG40)		
DA material	8600	EN4900G
Wire bonding material	Copper wire	Copper wire
Mold compound material	G770HCD	G700LA
Package: VFQFPN-40 (NQG40)		
DA material	8600	EN4900G
Wire bonding material	Gold wire	Gold wire
Mold compound material	G770HCD	G700LA



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**ATTACHMENT I - PCN # : A1711-01**

**Qualification Information and Qualification Data:**

**Affected Packages:** VFQFPN-10, 20, 28, 32, 40

**Assembly Material:** Shown on page 2 of this attachment.

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

**Qualification Vehicle:** VFQFPN-36

**Qualification material sets:** Die attach EN4900G, Mold compound G700LA, Copper Wire & Gold Wire

Test Description	Test Method	Test Results (Rej / SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/25	0/25	0/25
High Temperature Storage Bake (150°C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Ball Shear Test	JESD22-B116	0/5	0/5	0/5
Bond Pull Test	IDT Spec MAC-3010	0/5	0/5	0/5
X Ray	IDT Spec. MAC-3012	0/45	0/45	0/45
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 1, 260 °C	0/25	0/25	0/25

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



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### ATTACHMENT I - PCN # : A1711-01

**Affected Packages:** VFQFPN-40

**Assembly Material:** Shown on page 2 of this attachment.

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

**Qualification Vehicle:** VFQFPN-48

**Qualification material sets:** Die attach EN4900G, Mold compound G700LA, Copper Wire

Test Description	Test Method	Test Results (Rej / SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/25	0/25	0/25
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/25	0/25	0/25
High Temperature Storage Bake (150°C, 1000 Hrs)	JESD22-A103	0/25	0/25	0/25
Ball Shear Test	JESD22-B116	0/5	0/5	0/5
Bond Pull Test	IDT Spec MAC-3010	0/5	0/5	0/5
X Ray	IDT Spec. MAC-3012	0/45	0/45	0/45
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 3, 260 °C	0/25	0/25	0/25

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



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT II - PCN # : A1711-01

#### Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
49FCT805SNDGI	5PB1206NDGK8	6V40088CNBGI	9DBV0741AKLFT
49FCT805SNDGI8	5PB1216NDGK	6V40088CNBGI8	F2480NBGI
5P35021ENGNDGI	5PB1216NDGK8	6V40088DNBGI	F2480NBGI8
5P35021ENGNDGI8	6P40286NBGI	6V40088DNBGI8	LDS6120NQQI
5P49EE802-174NDGI	6P40286NBGI8	6V40088ENBGI	LDS6120NQQI8
5P49EE802-174NDGI8	6P49R502-003NDG	6V40088ENBGI8	LDS6203NTGI
5P49EE802NDGI	6P49R502-003NDG8	8T39S04NBGI	LDS6203NTGI8
5P49EE802NDGI8	6P49R502-003NDGI	8T39S04NBGI8	LDS6204NTGI
5PB1110NDGK	6P49R502-003NDGI8	9DBV0741AKILF	LDS6204NTGI8
5PB1110NDGK8	6P49R502-136NDG	9DBV0741AKILFT	LV810SNDGK
5PB1206NDGK	6P49R502-136NDG8	9DBV0741AKLF	LV810SNDGK8