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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A-0506-01** DATE: 8/15/2005

Product Affected: PQFP packages
(see attachment for affected part #s).

Date Effective: 11/14/2005

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark
- ▩ Back Mark — Lot Number will have "N1" suffix
- ☐ Date Code
- ☐ Other

Contact: Geoffrey Cortes
Title: Manager, Corporate Quality & Reliability
Phone #: (408) 284-8321
Fax #: (408) 284-1450
E-mail: Geoffrey.Cortes@idt.com

Attachment: ▩ Yes ☐ No

Samples: See attachment

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
- ☐ Wafer Fabrication Process
- ☐ Assembly Process
- ☐ Equipment
- ▩ Material
- ☐ Testing
- ☐ Manufacturing Site
- ☐ Data Sheet
- ☐ Other

IDT has qualified the PQFP packages using new mold compound material from Sumitomo and a new die attach material from Ablestik. This notification is to advise our customer of qualification of new assembly materials. The new mold compound and die attach material can meet 260ºC peak reflow temperature requirements. Please see attachment for qualification data and additional details.

RELIABILITY/QUALIFICATION SUMMARY:

Please see attached reliability qualification data.

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: _____ ☐ ***Approval for shipments prior to effective date.***

Name/Date: _____ E-Mail Address: _____

Title: _____ Phone# /Fax# : _____

CUSTOMER COMMENTS: _____

IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: _____ DATE: _____

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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT - PCN #: A-0506-01

PCN Type: Assembly Material Change

Data Sheet Change: None

Detail Of Change: IDT has qualified the PQFP packages using new mold compound material from Sumitomo and a new die attach material from Ablestik. The successful completion of this qualification has improved IDT's support of current and future production needs for components that can meet 260ºC peak reflow temperature requirements. There is no change in Moisture Sensitive Level (MSL). Products will be shipped at the existing MSL and each shipment is labeled with the correct MSL. Please refer to the label on each shipment for MSL information.
Customer should not be adversely impacted by this change.

Description	Affected Package Types	Material	
		From	To
Mold Compound Material	DH208, DP208 DR208, DS208 DU128, DZ128 PU208, PQ132	Shintsu KMC-184 series	Sumitomo EME-G700 series
Die Attach Material	DH208, DP208 DR208, DS208 DU128, DZ128 PU208, PQ132	Ablestik 8390	Ablestik 8361J

Please see attachment for affected part #s (Appendix - 1).

Samples are not built ahead of the change and are limited to selective devices. Please contact your local filed sales representative for sample availability and additional information.

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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT - PCN #: A-0506-01

Qualification Plan #: P02-11-13

Test Vehicle: IDT79RV332

Qualification Test Plan and Results:

Test Description	Test Method	Qual Data Pkg - DH208 IDT79RV332
* Temperature Cycling (-65 °C to 150 °C, 500 cycle)	JESD22-A104-B	45/0 (Pass)
* Auto Clave (121 °C, 2 ATM, 168 Hrs)	JESD22-A102-C	45/0 (Pass)
Life Test (125 °C, 1000 Hrs)	JESD22-A108-B	77/0 (Pass)
** Moisture Sensitivity Classification (MSL 3)	J-STD-020C	90/0 (Pass)
Internal Visual Inspection	MIL-STD-883 Method - 2010	5/0 (Pass)
External Visual Inspection	JESD22-B101	25/0 (Pass)
X-ray Examination	MIL-STD-883 Method - 2015	45/0 (Pass)
Bond Pull Test	MIL-STD-883 Method - 2011	5/0 (Pass)
Resistance To Solvents	JESD22-B107C	3/0 (Pass)
Solderability Test	JESD22-B102-C J-STD-002	5/0 (Pass)
Bake & Ball Shear Strength	JESD22-B116	5/0 (Pass)
Physical Dimensions	JESD22-B100-B	5/0 (Pass)
Die Shear Strength	MIL-STD-883 Method - 2019	5/0 (Pass)

Notes: * Test requires moisture pre-conditioning sequence per JESD22-A113C.
** There was no change to the existing MSL.

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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT - PCN #: A-0506-01

Appendix - 1

IDT79RC32T332-100DH	IDT79RV4650-267DP	IDT70V658S10DR	IDT723611L15PQF	IDT72V3622L10PQF
IDT79RC32T332-100DHI	IDT79RV4700-100DP	IDT70V658S12DR	IDT723611L20PQF	IDT72V3622L15PQF
IDT79RC32T332-133DH	IDT79RV4700-133DP	IDT70V658S12DRI	IDT723611L20PQFI	IDT72V3631L15PQF
IDT79RC32T332-133DHI	IDT79RV4700-150DP	IDT70V658S15DR	IDT723612L15PQF	IDT72V3631L20PQF
IDT79RC32T332-150DH	IDT79RV4700-175DP	IDT70V659S10DR	IDT723612L20PQF	IDT72V3632L10PQF
IDT79RC32T332-150DHI	IDT79RV4700-200DP	IDT70V659S12DR	IDT723612L20PQFI	IDT72V3632L15PQF
IDT79RC32T333-100DH	IDT70T3519S133DR	IDT70V659S12DRI	IDT723613L15PQF	IDT72V3641L15PQF
IDT79RC32T333-100DHI	IDT70T3519S133DRI	IDT70V659S15DR	IDT723613L20PQF	IDT72V3641L20PQF
IDT79RC32T333-133DH	IDT70T3519S166DR	IDT70V7519S133DR	IDT723613L20PQFI	IDT72V3642L10PQF
IDT79RC32T333-133DHI	IDT70T3519S166DRI	IDT70V7519S133DRI	IDT723614L15PQF	IDT72V3642L15PQF
IDT79RC32T333-150DH	IDT70T3589S133DR	IDT70V7519S166DR	IDT723614L20PQF	IDT72V3651L15PQF
IDT79RC32T333-150DHI	IDT70T3589S133DRI	IDT70V7519S166DRI	IDT723614L20PQFI	IDT72V3651L20PQF
IDT79RC32T351-100DH	IDT70T3589S166DR	IDT70V7599S133DR	IDT723622L12PQF	IDT72V3652L10PQF
IDT79RC32T351-133DH	IDT70T3599S133DR	IDT70V7599S133DRI	IDT723622L15PQF	IDT72V3652L15PQF
IDT79RC32T355-133DH	IDT70T3599S133DRI	IDT70V7599S166DR	IDT723631L15PQF	IDT72V3662L10PQF
IDT79RC32T355-133DHI	IDT70T3599S166DR	IDT70V7599S166DRI	IDT723631L20PQF	IDT72V3662L15PQF
IDT79RC32T355-150DH	IDT70T651S10DR	IDT72V71660DR	IDT723631L20PQFI	IDT72V3672L10PQF
IDT79RC32T355-150DHI	IDT70T651S12DR	IDT72V73263DR	IDT723632L12PQF	IDT72V3672L15PQF
IDT79RC32T355-180DH	IDT70T651S12DRI	IDT72V73273DR	IDT723632L15PQF	IDT72V3672L15PQFI
IDT79RC32V332-100DH	IDT70T651S15DR	IDT82V2048EDR	IDT723641L15PQF	IDT77252L155PG
IDT79RC32V332-100DHI	IDT70T659S10DR	IDT82V2088DR	IDT723641L20PQF	
IDT79RC32V332-133DH	IDT70T659S12DR	IDT77V400S155DS	IDT723641L20PQFI	
IDT79RC32V332-133DHI	IDT70T659S12DRI	IDT77V400S156DS	IDT723642L12PQF	
IDT79RC32V332-150DH	IDT70T659S15DR	IDT79RC32V134-DS	IDT723642L15PQF	
IDT79RC32V332-150DHI	IDT70V3569S4DR	IDT79RV4640-133DU	IDT723651L15PQF	
IDT79RC32V333-100DH	IDT70V3569S5DR	IDT79RV4640-150DU	IDT723651L20PQF	
IDT79RC32V333-100DHI	IDT70V3569S5DRI	IDT79RV4640-180DU	IDT723651L20PQFI	
IDT79RC32V333-133DH	IDT70V3569S6DR	IDT79RV4640-200DU	IDT723652L12PQF	
IDT79RC32V333-133DHI	IDT70V3569S6DRI	IDT79RV4640-267DU	IDT723652L15PQF	
IDT79RC32V333-150DH	IDT70V356S12DR	IDT79RC64T574-200DZ	IDT723662L12PQF	
IDT79RC32V333-150DHI	IDT70V3579S4DR	IDT79RC64T574-250DZ	IDT723662L15PQF	
IDT79R4650-100DP	IDT70V3579S5DR	IDT79RC64V474-180DZ	IDT723672L12PQF	
IDT79R4650-133DP	IDT70V3579S5DRI	IDT79RC64V474-200DZ	IDT723672L15PQF	
IDT79R4700-100DP	IDT70V3579S6DR	IDT7050L25PQF	IDT72V3611L12PQF	
IDT79R4700-133DP	IDT70V3579S6DRI	IDT7050L35PQF	IDT72V3611L15PQF	
IDT79R4700-80DP	IDT70V3589S133DR	IDT7050S25PQF	IDT72V3611L20PQF	
IDT79RC64T575-200DP	IDT70V3589S133DRI	IDT7050S35PQF	IDT72V3612L12PQF	
IDT79RC64T575-250DP	IDT70V3589S166DR	IDT7052L20PQF	IDT72V3612L15PQF	
IDT79RC64V475-180DP	IDT70V3599S133DR	IDT7052L25PQF	IDT72V3612L20PQF	
IDT79RC64V475-200DP	IDT70V3599S133DRI	IDT7052L25PQFI	IDT72V3613L12PQF	
IDT79RV4650-100DP	IDT70V3599S166DR	IDT7052L35PQF	IDT72V3613L15PQF	
IDT79RV4650-133DP	IDT70V657S10DR	IDT7052S20PQF	IDT72V3613L20PQF	
IDT79RV4650-150DP	IDT70V657S12DR	IDT7052S25PQF	IDT72V3614L12PQF	
IDT79RV4650-180DP	IDT70V657S12DRI	IDT7052S35PQF	IDT72V3614L15PQF	
IDT79RV4650-200DP	IDT70V657S15DR	IDT7052S35PQFI	IDT72V3614L20PQF	

Notes: For T & R (shipping method) "8" is added to the p/n and for industrial grade "I" is added to the part number.