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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1208-02** Date: September 6, 2012
Product Affected: LQFP-144

Date Effective: December 6, 2012

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☒ Product Mark
- ☐ Back Mark
- ☐ Date Code
- ☐ Other

Lot # will have a "P" prefix for Amkor Philippines

Contact:	Mary Vesey		
Title:	Director, Product Assurance	Attachment:	☒ Yes ☐ No
Phone #:	(408) 284-4565		
Fax #:	(408) 284-1450	Samples:	Availability shown on request
E-mail:	mary.vesey@idt.com		

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
- ☐ Wafer Fabrication Process
- ☐ Assembly Process
- ☐ Equipment
- ☐ Material
- ☐ Testing
- ☒ Manufacturing Site
- ☐ Data Sheet
- ☒ Other - Exposed pad dimension

This notification is to advise our customers of the change of Assembly location from Unisem Batam, Indonesia (PTU) to Amkor Philippines (ATP) for LQFP-144 package. Presently, ATP is the qualified IDT Subcontractor.

In relation to this assembly location change, the exposed pad dimension will change from 5.9mm to 6.4mm. Refer attachment for package outline drawing.

There is no change to the moisture performance of the packages as a result of this change.

Refer to Attachment 1 for the qualification summary and material set details.
Attachment 2 is the list of affected products.

RELIABILITY/QUALIFICATION SUMMARY:

Qualification has passed. There is no change in MSL rating.

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:

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IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: ______________________________ DATE: _____________________

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ATTACHMENT 1 - PCN # : A1208-02

PCN Type: Change of Assembly Location & Exposed Pad Dimension

Data Sheet Change: N/A. No change to the moisture performance of the packages.

Detail Of Change:

This notification is to advise our customers of the change of Assembly location from Unisem Batam, Indonesia (PTU) to Amkor Philippines (ATP) for LQFP-144 package. Presently, ATP is the qualified IDT Subcontractor.

The material set details of the current and new Assembly location of this package is shown in the table below. The die attach, mold compound and bonding wire used at ATP is qualified IDT materials. There is no change from the existing qualified lead frame material and lead finish for this new added assembly site.

In relation to this assembly location change, the exposed pad dimension will also change from 5.9mm to 6.4mm. Refer attachment for package outline drawing.

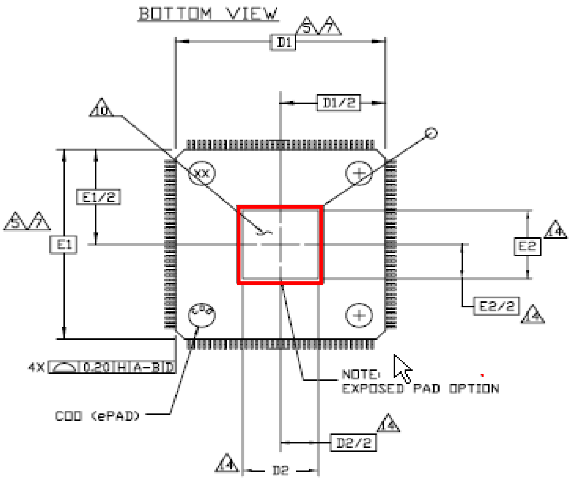
LQFP-144 - Qualified Material Sets, by Assembly Subcontractor

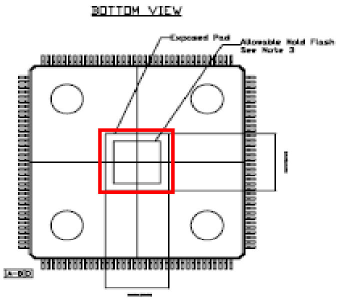
Material Set / Assembly	PTU - Unisem Batam, Indonesia	ATP - Amkor, Philippines
Die Attach	CRM1076	3230
Wire	0.9mil Au wire	1.0mil Au wire
Mold Compound	G700 series	G700 series

Exposed Pad Dimension Change

New - 6.4mm
(Refer to attached package drawing dimension D2 / E2)

Old - 5.9mm





ATTACHMENT 1 - PCN # : A1208-02

Qualification Information and Qualification Data:

Affected Packages: LQFP-144

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[1]

Qualification Vehicle: LQFP-144

Test Description	Test Method	Test Results (Rej / SS)		
[1] HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0 / 77	0 / 77	0 / 77
[1] Temperature Cycling (-65°C to 150°C, 500 cycles)	JESD22-A104	0 / 77	0 / 77	0 / 77
High Temperature Storage Test (150°C, 1000 hours)	JESD22-A103	0 / 77	0 / 77	0 / 77
Moisture Sensitivity Classification (MSL 3, 260 °C)	J-STD-020	0 / 22	0 / 22	0 / 22

Notes: 1. Tests were subjected to Preconditioning per JESD22-A113 @ MSL 3, 260 °C

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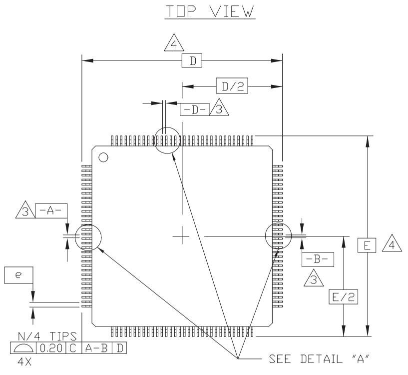
PRODUCT/PROCESS CHANGE NOTICE (PCN)

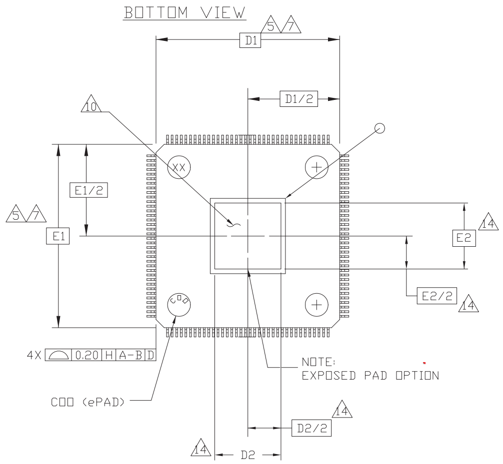
ATTACHMENT 2 - PCN # : A1208-02

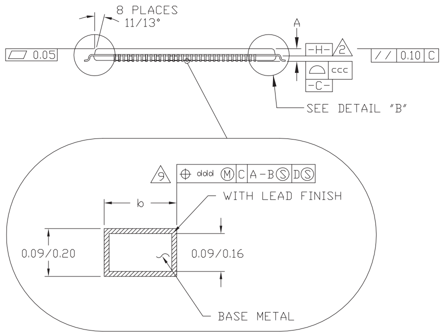
Affected Part Number

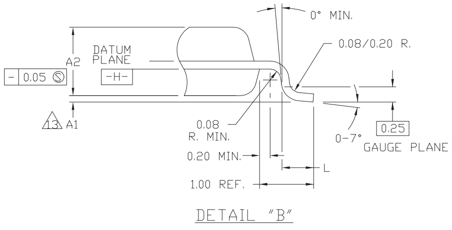
Part Number	Part Number	Part Number	Part Number
872S33CYLF	872S33CYLFT	852S41AYLF	852S41AYLFT

NEW





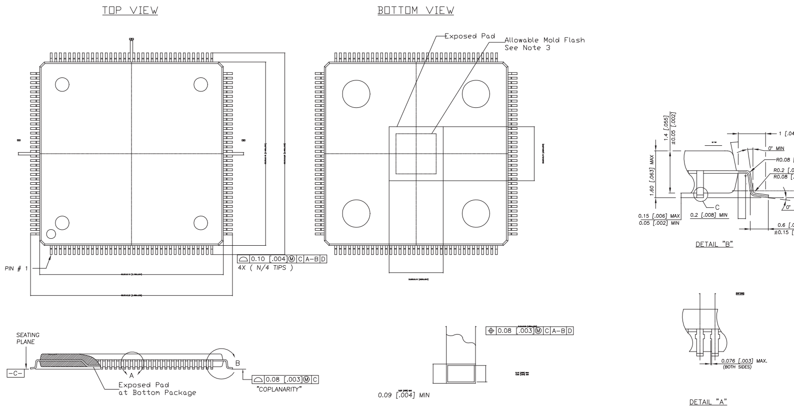




DETAIL "B"

S Y M B O L	(JEDEC VARIATION) ALL DIMENSIONS IN MILLIMETERS NEW MIN.	NOM.	MAX.	N O T E
A	~	~	1.60	
A1	0.05	~	0.15	13
A2	1.35	1.40	1.45	
D		22.00 BSC.		4
D1		20.00 BSC.		7,8
E		22.00 BSC.		4
E1		20.00 BSC.		7,8
L	0.45	0.60	0.75	
N		144		
e		0.50 BSC.		
b	0.17	0.22	0.27	9
D2		6.4 BSC.		
E2		6.4 BSC.		
ccc	~	~		
ddd	~	~		

CURRENT



S Y M B O L	(JEDEC VARIATION) ALL DIMENSIONS IN MILLIMETERS CURRENT MIN.	NOM.	MAX.	N O T E
A	~	~	1.60	
A1	0.05	~	0.15	13
A2	1.345	1.40	1.455	
D		22.00 BSC.		4
D1		20.00 BSC.		7,8
E		22.00 BSC.		4
E1		20.00 BSC.		7,8
L	0.45	0.60	0.75	
N		144		
e		0.50 BSC.		
b	0.17	0.22	0.27	9
D2	5.8	5.9	6.0	
E2	5.8	5.9	6.0	
ccc	~	~		
ddd	~	~		