



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

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1901-02**      Date: February 14, 2019  
Product Affected: WLCSP-53  
(Refer to attachment 2 for affected part numbers)

**MEANS OF DISTINGUISHING CHANGED DEVICES:**

- Product Mark  
 Back Mark      Lot # will have a "HT" prefix  
 Date Code  
 Other

Date Effective: May 14, 2019

Contact: IDT PCN DESK

Attachment:  Yes       No

E-mail: [pcndesk@idt.com](mailto:pcndesk@idt.com)

Samples: Please contact your local sales representative for sample request & availability.

**DESCRIPTION AND PURPOSE OF CHANGE:**

- |   |   |
|---|---|
| <input type="checkbox"/> Die Technology<br><input type="checkbox"/> Wafer Fabrication Process<br><input type="checkbox"/> Assembly Process<br><input type="checkbox"/> Equipment<br><input checked="" type="checkbox"/> Material<br><input type="checkbox"/> Testing<br><input checked="" type="checkbox"/> Manufacturing Site<br><input type="checkbox"/> Data Sheet<br><input type="checkbox"/> Other | <p>This notification is to advise our customers that IDT is adding Huatian, China as an alternate bumping facility.</p> <p>There is no change to the moisture performance rating.</p> <p>Please refer to Attachment 1 for the qualification summary and material set details.<br/>Please refer to Attachment 2 for affected part# list.</p> |
|---|---|

**RELIABILITY/QUALIFICATION SUMMARY:**

Qualification has been successfully completed. 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:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**IDT ACKNOWLEDGMENT OF RECEIPT:**

RECD. BY: \_\_\_\_\_ DATE \_\_\_\_\_



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

**ATTACHMENT 1 - PCN # : A1901-02**

**PCN Type:** Alternate Bumping Location and Change of material sets

**Data Sheet Change:** N/A

**Detail Of Change:**

This notification is to advise our customers that IDT is adding Huatian, China as an alternate bumping facility.

The material set details of the current and alternate location is shown in the tables below. The material sets used at the alternate site are qualified IDT materials.

There is no change to the moisture performance rating but the material declaration will differ.

Qualified Material Sets, by Bump Subcontractor

	<b>Existing</b>	<b>Alternate</b>
Material Set / Bump	SFA - SFA Semicon	HTC - Huatian, China
RDL (µm)	TiW / Cu /Cu (0.1 / 0.15 / 5.5 ± 1.5)	TiW / Cu /Cu (0.1 / 0.15 / 5.5 ± 1.5)
UBM (µm)	Ti / Cu / Ni / Au (0.3 / 0.15 / 2 ± 0.5 / 0.5)	Ti / Cu / Ni / Au (0.3 / 0.15 / 2 ± 0.5 / 0.5)
POLYIMIDE/ PASSIVATION 1 and 2	Polymide HD4100 Thickness 7 ± 2µm	Polymide HD4100 Thickness 7 ± 2µm
BACK SIDE COATING	Lintech LC2850 Thickness 25µm	Lintech LC2850 Thickness 25µm
SOLDER BALL ( Bump)	SAC105	SAC105
Solder Ball Diameter (mm)	0.268 ± 0.025 ( 268 ± 25µm)	0.268 ± 0.025 ( 268 ± 25µm)



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### ATTACHMENT 1 - PCN # : A1901-02

#### Qualification Information and Qualification Data:

**Affected Packages:** WLCSP-53

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

**Qualification Vehicle:** WLCSP-79 (3 lots)

Test Description	Test Method	Test Results (Rej/SS)		
		Lot 1	Lot 2	Lot 3
<sup>1</sup> HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A118	0 / 25	0 / 25	0 / 25
<sup>1</sup> Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0 / 25	0 / 25	0 / 25
High Temperature Storage Test (150°C, 1000 hours)	JESD22-A103	0 / 25	0 / 25	0 / 25

Notes: 1. Subjected to Preconditioning per JESD22-A113 for MSL 1



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## PRODUCT/PROCESS CHANGE NOTICE (PCN)

### ATTACHMENT 2 - PCN # : A1901-02

#### Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
P9382-0AHGI	P9382-2AHGI	P9382A-0AHGI	P9382A-3AHGI
P9382-0AHGI8	P9382-2AHGI8	P9382A-0AHGI8	P9382A-3AHGI8
P9382-1AHGI	P9382-3AHGI	P9382A-2AHGI	
P9382-1AHGI8	P9382-3AHGI8	P9382A-2AHGI8	