



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1904-02** Date: May 3, 2019
Product Affected: WLCSP-52
 (Refer to attachment 2 for affected part numbers)

Date Effective: August 3, 2019

MEANS OF DISTINGUISHING CHANGED DEVICES:

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

Contact: IDT PCN DESK

Attachment: Yes No

E-mail: pcndesk@idt.com

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

DESCRIPTION AND PURPOSE OF CHANGE:

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

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 _____



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ATTACHMENT 1 - PCN # : A1904-02

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

	Existing	Alternate
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 (0.1 / 0.15 / 2 ± 0.5 / 0.5)	Ti / Cu / Ni (0.1 / 5.3 / 2 ± 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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Qualification Information and Qualification Data:

Affected Packages: WLCSP-79

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
¹ HAST - unbiased (130 °C/85% RH, 96 Hrs)	JESD22-A118	0 / 25	0 / 25	0 / 25
¹ 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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ATTACHMENT 2 - PCN # : A1904-02

Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
P9221-14AHGI	P9221-15AHGI8	P9221-1AHGI	P9221-24AHGI8
P9221-14AHGI8	P9221-19AHGI	P9221-1AHGI8	
P9221-15AHGI	P9221-19AHGI8	P9221-24AHGI	