



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

<p>PCN #: A1702-01 DATE: 2-May-2017</p> <p>Product Affected: 13.0mm x 13.0mm x 1.53mm CABGA-144</p> <p> 15.0mm x 15.0mm x 1.53mm CABGA-196</p> <p> 15.0mm x 15.0mm x 1.68mm CABGA-196</p> <p style="text-align: center;">Refer to Attachment II for the affected part numbers</p> <p>Date Effective: 2-Aug-2017</p>	<p>MEANS OF DISTINGUISHING CHANGED DEVICES:</p> <p><input type="checkbox"/> Product Mark</p> <p><input type="checkbox"/> Back Mark</p> <p><input type="checkbox"/> Date Code</p> <p><input checked="" type="checkbox"/> Other Materials used is traceable through Assembly Lot#</p>
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<p>Contact: IDT PCN DESK</p> <p>E-mail: pcndesk@idt.com</p>	<p>Attachment: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Samples: Please contact your local sales representative for sample request & availability.</p>
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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 type="checkbox"/> Manufacturing Site <input type="checkbox"/> Data Sheet <input checked="" type="checkbox"/> Other - MSL Rating	<p>This notification is to advise our customers that the mold compound material and solder paste material will be changed to GE100RFC32 and SnSb respectively.</p> <p>There is a change on the moisture performance from MSL 4 to MSL 3 for 15.0mm x 15.0mm x 1.53mm CABGA-196. No change in MSL rating for the other packages.</p> <p>Attachment I details the qualification data for this change and Attachment II shows the affected list of 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: _____



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ATTACHMENT I - PCN # : A1702-01

PCN Type: Change of Materials
Data Sheet Change: Change in moisture sensitivity level (MSL) from 4 to 3 on
 15.0mm x 15.0mm x 1.53mm CABGA-196

Detail Of Change:

This notification is to advise our customers that the mold compound material and solder paste material will be changed to GE100RFC32 and SnSb respectively.

There is a change on the moisture performance from MSL 4 to MSL 3 for 15.0mm x 15.0mm x 1.53mm CABGA-196. No change in MSL rating for the other packages. The affected products will be shipped with dry pack and labeled as MSL 3 according to JEDEC J-STD-020. The peak reflow temperature remain unchanged at 260°C. Refer to Attachment I for the examples of moisture sensitive labels.

Change of Material Set

Description	From	To
Mold Compound Material	GE100RFC	GE100RFC32
Solder Paste Material	SnAg	SnSb

MSL Rating Changes on 15.0mm x 15.0mm x 1.53mm CABGA-196

From: MSL 4 Moisture Sensitive Label

CAUTION
This Bag Contains
MOISTURE-SENSITIVE DEVICES

LEVEL **4**

- Calculated shelf life in sealed bag:
12 months at < 40°C and < 90% relative humidity (RH)
- Peak package body temperature: 260°C
- After bag is opened, devices that will be subjected to reflow solder or other high temperature process must
 - Mounted within 72hours of factory condition <=30°C/60% RH, or b) Stored per J-STD-033
- Devices required bake, before mounting if:
 - Humidity indicator card reads >10% for level 2a-5a devices or >60% for level 2 devices when read at 23 +/-5 deg C
 - 3a or 3b are not met
- If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure
 Bag Seal Date:

Note: Level and body temperature defined by IPC/JEDEC J-STD-020.

To: MSL 3 Moisture Sensitive Label

CAUTION
This Bag Contains
MOISTURE-SENSITIVE DEVICES

LEVEL **3**

- Calculated shelf life in sealed bag:
12 months at < 40°C and < 90% relative humidity (RH)
- Peak package body temperature: 260°C
- After bag is opened, devices that will be subjected to reflow solder or other high temperature process must
 - Mounted within 168hours of factory condition <=30°C/60% RH or b) Stored per J-STD-033
- Devices required bake, before mounting if:
 - Humidity indicator card reads >10% for level 2a-5a devices or >60% for level 2 devices when read at 23 +/-5 deg C
 - 3a or 3b are not met
- If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure
 Bag Seal Date:

Note: Level and body temperature defined by IPC/JEDEC J-STD-020.

Note: There is no change to the peak reflow temperature of the affected products.



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PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT I - PCN # : A1702-01

Qualification Test Plans and Results :

Qual Plan & Results: The qualification was performed in accordance with JEDEC47 recommended tests

Qual Vehicle: 15.0mm x 15.0mm x 1.53mm CABGA-196 (3 lots)

Test Description	Test Method	Test Results (SS / Rej)		
		Lot 1	Lot 2	Lot 3
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	25/0	25/0	25/0
* Temperature Cycle / Condition B (-55 °C to +125 °C, 700 Cyc)	JESD22-A104	25/0	25/0	25/0
High Temp. Storage Test (150 °C, 1000 Hrs)	JESD22-A103	25/0	25/0	25/0
Moisture Classification (Level 3 @ 260 °C)	J-STD-020C	25/0	-	25/0

Note:

* Test requires moisture pre-conditioning sequence per JESD22-A113 prior to stress test



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ATTACHMENT II - PCN # : A1702-01

Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
8V89317BAG8	82V3910AUG-MV	82P33910-1BAG	82P33810BAG
82P33931BAG/W	8V89317BAG	82P33810ABAG	82P33831YBBAG
82P33931BAG	8V89316BAG8	82P33741BAG8	82P33831YABAG
82P33931-1BAG8	8V89316BAG	82P33741BAG	82P33831BAG8
82P33931-1BAG/W	82V3912AUG8	82P33731BAG8	82P33831BAG
82P33931-1BAG	82V3912AUG	82P33731BAG	82P33831ABAG8
82P33910BAG8	82V3911AUG8	82P33731ABAG8	82P33831ABAG/W
82P33910BAG/W	82V3911AUG	82P33731ABAG	82P33831ABAG
82P33910BAG	82V3910AUG8	82P33710BAG8	82P33810BAG8
82P33931BAG8	82P33910-1BAG8	82P33810ABAG/W	82P33710BAG
82V3910AUG	82P33910-1BAG/W	82P33810ABAG8	