



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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1702-01** DATE: **2-May-2017**
 Product Affected: 13.0mm x 13.0mm x 1.53mm CABGA-144
 15.0mm x 15.0mm x 1.53mm CABGA-196
 15.0mm x 15.0mm x 1.68mm CABGA-196
 Refer to Attachment II for the affected part numbers
 Date Effective: **2-Aug-2017**

MEANS OF DISTINGUISHING CHANGED DEVICES:

Product Mark
 Back Mark
 Date Code
 Other Materials used is traceable through Assembly Lot#

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
- Assembly Process
- Equipment
- Material
- Testing
- Manufacturing Site
- Data Sheet
- Other - MSL Rating

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.

Attachment I details the qualification data for this change and Attachment II shows the affected list of part numbers.

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: _____

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 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
 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
 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 | |