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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1905-01** DATE: **11-Jun-2019**

Product Affected: QSOP-16
(Refer to Attachment II for the affected part#)

Date Effective: **11-Sep-2019**

MEANS OF DISTINGUISHING CHANGED DEVICES:

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

Lot # will have:
"MM" prefix for Carsem, Malaysia (M site)

Contact: IDT PCN DESK

E-mail: pcndesk@idt.com

Attachment: ■ Yes ☐ No

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

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
- ☐ Wafer Fabrication Process
- ☐ Assembly Process
- ☐ Equipment
- ■ Material
- ☐ Testing
- ■ Manufacturing Site
- ☐ Data Sheet
- ☐ Other

This notification is to advise our customers that IDT is adding Carsem, Malaysia (M site) as an alternate assembly facility as one of the existing assembly facility, OSET has discontinued the package.

There is no change to the moisture performance.

Attachment I details the qualification results.
Attachment II lists the affected 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: ______________________

ATTACHMENT I - PCN # : A1905-01

PCN Type: Alternate Assembly Location & Change of Material Sets

Data Sheet Change: None

No change in moisture sensitivity level (MSL)

Detail Of Change:

This notification is to advise our customers that IDT is adding Carsem, Malaysia (M site) as an alternate assembly facility as one of the existing assembly facility, OSET has discontinued the package.

The material set details of the current and alternate assembly location is as shown in Table 1. There will be no change in wire type as a result of this PCN. Customers receiving products assembled in Gold wire will continue to receive Gold wire parts and vice versa except for some select part numbers as stated below.

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

Table 1: Assembly Material Sets for The Existing and Alternate Assembly Location

	Existing		Future	
Material Set / Assembly	ATP - Amkor, Philippines	OSET - OSE, Taiwan	ATP - Amkor, Philippines	CRSM - Carsem, Malaysia (M site)
Die Attach	Ablestik 8290	EN4900GC	Ablestik 8290	84-1 LMI SR4
Bonding Wire	Gold wire, Copper wire	Gold wire	Gold wire, Copper wire	Gold wire, Copper wire*
Mold Compound	EME-G600	CEL-9220HF	EME-G600	CEL-8240HF

** Copper wire for part# 9112BF-17LF(T)*

ATTACHMENT I - PCN # : A1905-01

Qualification Information and Qualification Data:

Affected Packages: QSOP-16

Assembly Material: Shown on page 2 of this attachment.

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

Qualification Vehicle: QSOP-20 (Gold wire) & QSOP-28 (Copper wire)

Test Description	Test Method	Test Results Gold wire & Copper wire (Rej / SS)		
		Lot 1	Lot 2	Lot 3
* Temperature Cycling (-55°C to 125°C, 700 cycles)	JESD22-A104	0/25, 0/25	0/25, 0/25	0/25, 0/25
* HAST - biased (130 °C/85% RH, 96 Hrs)	JESD22-A110	0/25, 0/25	0/25, 0/25	0/25, 0/25
High Temperature Storage Bake (150°C, 1000 Hrs)	JESD22-A103	0/25, 0/25	0/25, 0/25	0/25, 0/25
X-Ray Examination	IDT Spec. MAC-3012	45/5, 45/5	45/5, 45/5	45/5, 45/5
Ball Shear Test	JESD22-B117	0/5, 0/5	0/5, 0/5	0/5, 0/5
Bond Pull Test	MIL-STD-883 (Method 2011)	0/5, 0/5	0/5, 0/5	0/5, 0/5
Moisture Sensitivity Level, MSL	J-STD-20 / MSL 1, 260 °C	0/25	0/25	-

* Tests were subjected to Preconditioning per JESD22-A113 prior to stress test

ATTACHMENT II - PCN # : A1905-01

Affected Part Numbers

Part Number	Part Number	Part Number	Part Number
74CBTLV3125QG	9112BF-17LFT	QS3257QG	QS3VH253QG8
74CBTLV3125QG8	QS3125QG	QS3257QG8	QS3VH257QG
74CBTLV3251QG	QS3125QG8	QS3VH125QG	QS3VH257QG8
74CBTLV3251QG8	QS3126QG	QS3VH125QG8	QS4A101QG
74CBTLV3253QG	QS3126QG8	QS3VH126QG	QS4A101QG8
74CBTLV3253QG8	QS3251QG	QS3VH126QG8	QS4A205QG
74CBTLV3257QG	QS3251QG8	QS3VH251QG	QS4A205QG8
74CBTLV3257QG8	QS3253QG	QS3VH251QG8	QS4A210QG
9112BF-17LF	QS3253QG8	QS3VH253QG	QS4A210QG8