

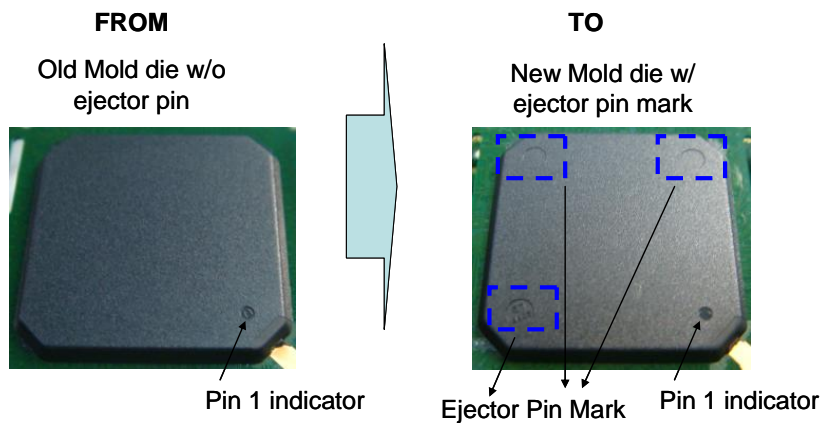
PCN Number:	20150630001	PCN Date:	07/01/2015
Title:	Mold Package Eject Tool Design for 23x23mm PBGA Package		
Customer Contact:	PCN Manager	Dept:	Quality Services
Change Type:			
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Materials
<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of new ejector pin location for 23x23mm PBGA package. Ejector pin location change as follows:

	Current	Proposed
Ejector pin location	Substrate side	Molded Package Body side



Reason for Change:

Improve Quality and Reliability

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

Eliminate assembly tool ejector pin contact with the package substrate surface that could result in visible tool marks on the substrate and/or a broken substrate Cu trace.

Changes to product identification resulting from this PCN:

None

Product Affected:

F751916BGZDW	TMS320DM6435ZDU6	TNETV1050NPWZDW	TNETV1057EINZDW
F751916BZDW	TMS320DM6435ZDU7	TNETV1050ZDW	TNETV1057IDZDW
SM320C6424GDUQ6EP	TMS320DM6435ZDUL	TNETV1051DACLZDW	TNETV1057ZDW
TMS320C6421ZDU4	TMS320DM6435ZDUQ5	TNETV1051EACLZDW	TNETV1058CINCZDW
TMS320C6421ZDU5	TMS320DM6435ZDUQ6	TNETV1051INZDW	TNETV1058CINZDW
TMS320C6421ZDU7	TMS320DM6437ZDU4	TNETV1051ZDW	TNETV1058CZDW
TMS320C6421ZDUL	TMS320DM6437ZDU5	TNETV1052ACLZDW	TNETV1058EINZDW
TMS320C6421ZDUQ5	TMS320DM6437ZDU6	TNETV1053ZDW	TNETV1058ZDW
TMS320C6424ZDU4	TMS320DM6437ZDU7	TNETV1055CZDW	TNETV1059ZDW
TMS320C6424ZDU5	TMS320DM6437ZDUL	TNETV1055DACLZDW	TNETV1060DACLZDW
TMS320C6424ZDU6	TMS320DM6437ZDUQ4	TNETV1055IDZDW	TNETV1060FIBZDW
TMS320C6424ZDU7	TMS320DM6437ZDUQ4R	TNETV1055INZDW	TNETV1060FNBZDW
TMS320C6424ZDUQ5	TMS320DM6437ZDUQ5	TNETV1055INZDWASK	TNETV1060ZDW
TMS320C6424ZDUQ6	TMS320DM6437ZDUQ6	TNETV1055IPWZDW	TNETV1644ZDU6
TMS320DM6431ZDU3	TNETC4700ZDW	TNETV1055NNZDW	TNETV2661ACLZDU4
TMS320DM6433ZDU4	TNETV1050CINZDW	TNETV1055ZDW	TNETV2664ACLZDU
TMS320DM6433ZDU5	TNETV1050CZDW	TNETV1056CINZDW	TNETV2665ACLZDUA
TMS320DM6433ZDU6	TNETV1050DACLZDW	TNETV1056CZDW	TNETV2666ACLZDU
TMS320DM6433ZDU7	TNETV1050INZDW	TNETV1056IPWZDW	TNETV2667ACLZDU
TMS320DM6433ZDUL	TNETV1050IPWZDW	TNETV1056ZDW	TNETV2667ACLZDUA
TMS320DM6435ZDU4	TNETV1050IPZDW	TNETV1057ACLZDW	TNETV6421INZDU4
TMS320DM6435ZDU5	TNETV1050NNZDW	TNETV1057CZDW	V62/09629-01XE

Qualification Report

PBGA Mold Package Eject Tool Design for 23x23mm

Product Attributes

Attributes	Qual Device: OMP5905IGDQRQ1	Qual Device: F751916BGZDW	Qual Device: DM6435ZDUS5R
Assembly Site	TIPI	TIPI	TIPI
Package Family	PBGA	PBGA	PBGA
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	DP1-DM5	DM6	UMC F12
Wafer Fab Process	1533C035.15COW	1533C035.15CCW	1118C027.AZNBW

- QBS: Qual By Similarity
- Qual Device DM6435ZDUS5R is qualified at LEVEL3-260CG
- Qual Device F751916BGZDW is qualified at LEVEL4-260CP
- Qual Device OMP5905IGDQRQ1 is qualified at LEVEL3-235C

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: OMP5905IGDQRQ1	Qual Device: F751916BGZDW	Qual Device: DM6435ZDUS5R
TC	Temperature Cycle, - 55C/125C	500 Cycles	3/231/0	3/231/0	3/231/0

Type	Test Name / Condition	Duration	Qual Device: OMP5905IGDQRQ1	Qual Device: F751916BGZDW	Qual Device: DM6435ZDUS5R
MQ	Manufacturability	(per mfg. Site specification)	-	Pass	-
MQ	Manufacturability (Auto Assembly)	(per automotive requirements)	Pass	-	Pass

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours

- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours

- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

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