

PCN Number:	20170106000		PCN Date:	Jan 10, 2017	
Title:	HD3SS3415RUA Die Revision				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	April 10, 2017	Estimated Sample Availability:	Date provided at sample request.		
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials
<input checked="" type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
	<input type="checkbox"/>	Part number change			

PCN Details

Description of Change:

This notification is to announce a die revision to the HD3SS3415RUAR and HD3SS3415RUAT devices. Design changes were made to improve the power performance in the device. The power improvements are achieved through design optimization of bias circuits, charge pump and adaptive common mode voltage regulator. There is no change to the device functionality. The high speed switch network remained unchanged. The design changes do not affect the device's guaranteed datasheet specifications or electrical performance.

Affected devices are listed in the product affected section of this document.

Reason for Change:

Improved power performance

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

None

Changes to product identification resulting from this PCN:

Die Rev designator for the affected devices will change as shown in the table and sample label below:

Current	New
Die Rev [2P]	Die Rev [2P]
B	C

Sample product shipping label (not actual product label)

 <p>TEXAS INSTRUMENTS MADE IN: Malaysia 2DC: 2Q:</p> <table border="1" style="font-size: small;"> <tr> <td>MSL 2 /260C/1 YEAR</td> <td>SEAL DT</td> </tr> <tr> <td>MSL 1 /235C/UNLIM</td> <td>03/29/04</td> </tr> </table> <p>OPT: ITEM: 39 LBL: 5A (L)T0:1750</p>	MSL 2 /260C/1 YEAR	SEAL DT	MSL 1 /235C/UNLIM	03/29/04	 	<p>(1P) SN74LS07NSR (Q) 2000 (D) 0336 (31T) LOT: 3959047MLA (4W) TKY (1T) 7523483SI2 (P) (2P) REV: (V) 0033317 (20L) CSO: SHE (21L) CCO: USA (22L) ASO: MLA (23L) ACO: MYS</p>
MSL 2 /260C/1 YEAR	SEAL DT					
MSL 1 /235C/UNLIM	03/29/04					

Product Affected:

HD3SS3415RUAR	HD3SS3415RUAT
---------------	---------------

Qualification Report
HD3SS3415RUA with die rev C
Approve Date 28-Dec-2016

Attributes	Qual Device: HD3SS3415RU A	QBS Product Reference: HD3SS3415RU A	QBS Process Reference: HD3SS3411TRWAQ 1	QBS Package Reference: SH6966ACC0RGCRG4_CU_WIR E
Assembly Site	CLARK-AT	CLARK-AT	CLARK-AT	CLARK-AT
Package Family	QFN	QFN	QFN	QFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	FFAB	FFAB	FFAB	MIHO8
Wafer Fab Process	1833BICOM3ZL	1833BICOM3ZL	1833BICOM3ZL	LBC7

- QBS: Qual By Similarity
- Qual Device HD3SS3415RUA is qualified at LEVEL2-260C
- Device HD3SS3415RUA contains multiple dies.

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: HD3SS3415R UA	QBS Product Reference: HD3SS3415R UA	QBS Process Reference: HD3SS3411TRWA Q1	QBS Package Reference: SH6966ACC0RG RG4
AC	Autoclave 121C	96 Hours	-	1/77/0	3/231/0	3/231/0
CDM	ESD - CDM	1500 V	1/3/0	-	-	-
ED	Electrical Characteriza tion	Per Datasheet Parameter s	Pass	-	-	-
ELFR	Early Life Failure Rate, 140C	24 Hours	-	-	3/2400/0	-
HAST	Biased HAST, 130C/85%R H	96 Hours	-	-	3/231/0	3/231/0
HBM	ESD - HBM	4000 V	1/3/0	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	3/321
HTOL	Life Test, 140C	480 Hours	-	-	3/231/0	-
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	2/90/0	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-	3/231/0
LU	Latch-up	(Per JESD78)	1/6/0	-	-	-

Type	Test Name / Condition	Duration	Qual Device: HD3SS3415R UA	QBS Product Reference: HD3SS3415R UA	QBS Process Reference: HD3SS3411TRWA Q1	QBS Package Reference: SH6966ACC0RGC RG4
TC	Temperature Cycle, -65/150C	500 Cycles	-	1/77/0	3/231/0	3/231/0
TS	Thermal Shock -65/150C	500 Cycles	-	-	-	3/231/0
WBS	Ball Bond Shear	Wires	-	1/76/0	-	-

- 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 you can contact your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com