

PCN Number:	20161014000	PCN Date:	Oct 17, 2016
Title:	AMC1305x Die Revision and Datasheet Change		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Jan 17, 2017	Estimated Sample Availability:	Date provided at sample request.
Change Type:			
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process
<input checked="" type="checkbox"/>	Design	<input checked="" type="checkbox"/>	Electrical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials
		<input type="checkbox"/>	Part number change

PCN Details

Description of Change:

This notification is to inform of a die revision change to the AMC1305x device. The Design changes are summarized below:

1. Isolation data transceiver circuits with improved power supply variation and CMT rejection implemented on the series isolation capacitor die.
2. The ESD protection was replaced with an updated version having a lower clamping voltage. Change verified by qualification, ESD rating improved to 2.5kV HBM.

The Die Revision and the datasheet will be changing:

Current

New

Die Revision	Datasheet Number	Die Revision	Datasheet Number
E	SBAS654C	G	SBAS654D

The product datasheet(s) is updated as seen in the change revision history below:



AMC1305L25, AMC1305M05, AMC1305M25
SBAS654D – JUNE 2014 – REVISED AUGUST 2016

Changes from Revision C (December 2014) to Revision D	Page
• Added last two <i>Features</i> bullets	1
• Changed <i>Simplified Schematic</i> figure	1
• Moved <i>Power Rating, Insulation Specifications, Regulatory Information, and Safety Limiting Values</i> tables	4
• Changed <i>Insulation Specifications</i> table as per ISO standard	5
• Added <i>Insulation Characteristics Curves</i> section	12
• Changed Figure 54	25
• Changed Figure 58	29

These changes may be reviewed at the datasheet link provided:

<http://www.ti.com/lit/gpn/amc1305m25>

Reason for Change:

Improved product performance

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

None

Changes to product identification resulting from this PCN:

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

Current	New
Die Rev [2P]	Die Rev [2P]
E	G

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2d:
 MSL '2 / 260C / 1 YEAR SEAL DT
 MSL 1 / 235C / UNLIM 03/29/04
 OPT:
 ITEM: 39
LBL: 5A (L)T0:1750

(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

Product Affected:

AMC1305L25DW	AMC1305M05DW	AMC1305M25DW	AMC1305M25DWR
AMC1305L25DWR	AMC1305M05DWR		

Qualification Report

AMC1304 Improved No tail SSB (NTSSB) Bonding qual for Reinforced Isolation devices and rev G modulator die
 Approve Date 12-Oct-2016

Product Attributes

Attributes	Qual Device: AMC1304M05DW	QBS Process/Package Reference: AMC1305L25DW
Assembly Site	TAI	TAI
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	DMOS5	DMOS5
Wafer Process	50HPA07, 50HPA07ISOS	50HPA07, 50HPA07ISO-S

- QBS: Qual By Similarity
 - Qual Device AMC1304M05DW is qualified at LEVEL3-260C
 - Device AMC1304M05DW contains multiple dies.

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: AMC1304M05DW	QBS Process/Package Reference: AMC1305L25DW
ED	Electrical Characterization	Per Datasheet Parameters	-	Pass
ELFR	Early Life Failure Rate, 150C	24 Hours	-	3/2399/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
HBM	ESD - HBM	2500 V	1/3/0	-
CDM	ESD - CDM	1000 V	1/3/0	1/3/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	2/12/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0

- 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