

PCN Number:	20171023000		PCN Date:	Nov 27, 2017	
Title:	LMV84x Die Revision Change and Datasheet Updates				
Customer Contact:	PCN Manager	Dept:	Quality Services		
Proposed 1st Ship Date:	Feb 27, 2018	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 checked="" 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 inform of a design change to the LMV841, LMV842 and LMV844 family of devices. The design change is a die enhancement which removes the 12V capacitor and utilizes only 7V capacitors.

The Die Revision and the datasheet number will be changing:

Current		New	
Die Revision	Datasheet Number	Die Revision	Datasheet Number
A	SNOSAT1H	B	SNOSAT1I

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



LMV841, LMV842, LMV844

SNOSAT1I – OCTOBER 2006 – REVISED OCTOBER 2017

**LMV84x CMOS Input, RRIO, Low Power, Wide Supply Range,
4.5-MHz Operational Amplifiers**

4 Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from Revision H (July 2016) to Revision I	Page
• Changed <i>ESD Ratings</i> table footnotes to TI standard	4
• Changed <i>Thermal Information</i> table	4
• Changed Phase Margin vs C_L graphic	13
• Changed Overshoot vs C_L graphic	14

These changes may be reviewed at the datasheet links provided:

<http://www.ti.com/lit/ds/symlink/lmv841.pdf>

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]
A	B

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
 MADE IN: Malaysia
 2DC: 2G:
 MSL 2 / 260C/1 YEAR SEAL DT
 MSL 1 / 235C/UNLIM 03/29/04
 OPT: 39
 ITEM:
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:

LMV841MG/NOPB	LMV842MAX/NOPB	LMV844MA/NOPB	LMV844MTX/NOPB
LMV841MGX/NOPB	LMV842MM/NOPB	LMV844MAX/NOPB	
LMV842MA/NOPB	LMV842MMX/NOPB	LMV844MT/NOPB	

Qualification Report

**LMV841 - Grade 1 All Layer Change, Elimination of 12V Capacitor
Approve Date 08-Nov-2017**

Product Attributes

Attributes	Qual Device: LMV841MG/NOPB Rev B, New Design (all Layer change)	Qual Device: LMV841QMG/NOPB Rev A (Old Design)	QBS Product Reference: LMV844MA New Design (all Layer change)	QBS Package Reference: LM94022MG	QBS Process Reference: LMP8601QMA
Assembly Site	TIEM-MALACCA	TIEM-MALACCA	TIEM-MALACCA	TIEM-MALACCA	TIEM-MALACCA
Package Family	SC70	SC70	SOIC	SC70	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MFAB	MFAB	MFAB	MFAB	MFAB
Wafer Fab Process	VIP50CLZ3	VIP50CLZ3	VIP50CLZ3	CMOS7	VIP50CLZ3

- QBS: Qual By Similarity
- Qual Device LMV841MG/NOPB is qualified at LEVEL1-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LMV841MG/NOP B Rev B, New Design (all Layer change)	Qual Device: LMV841QMG/NOP B Rev A (Old Design)	QBS Product Reference: LMV844M A New Design (all Layer change)	QBS Package Reference: LM94022M G	QBS Process Reference: LMP8601QM A
AC	Autoclave 121C	96 Hours	-	1/77/0	-	3/231/0	-
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	-	-	Pass	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	-	-	-
THBT	Temperature, Humidity Bias Test 85°C, 85%RH	1000 Hours	-	-	-	3/231/0	-
HBM	ESD - HBM	2500 V	1/3/0	-	-	-	-
CDM	ESD - CDM	1000 V	1/3/0	-	-	-	-
HTOL	Life Test, 125C	1000 Hours	1/77/0	-	1/77/0	-	3/231/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	1/45/0	-	3/231/0	-
LU	Latch-up	(per JESD78)	1/6/0	-	-	-	-
TC	Temperature Cycle, - 65/150C	500 Cycles	1/77/0	1/77/0	-	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

LMV842 - All Layer Change, Elimination of 12V Capacitor Approve Date 10-Nov-2017

Product Attributes

Attributes	Qual Device: LMV842MA/NOPB Rev B, New Design (all Layer change)	QBS Process Package Reference: LMP8601QMAX
Assembly Site	TIEM-MALACCA	TIEM-MALACCA
Package Family	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MFAB	MFAB
Wafer Fab Process	VIP50CLZ3	VIP50CLZ3

- QBS: Qual By Similarity
- Qual Device LMV842MA/NOPB is qualified at LEVEL1-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LMV842MA/NOPB Rev B, New Design (all Layer change)	QBS Process Package Reference: LMP8601QMA
AC	Autoclave 121C	96 Hours	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	3/90/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
THBT	Temperature, Humidity Bias Test 85°C, 85%RH	1000 Hours	-	-
HBM	ESD - HBM	2500 V	1/3/0	-
CDM	ESD - CDM	1000 V	1/3/0	-
HTOL	Life Test, 125C	1000 Hours	3/231/0	3/231/0
ELFR	Early Life Failure Rate, 125C	48 Hours	3/2400/0	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	1/77/0
LU	Latch-up	(per JESD78)	1/6/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	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

LMV844 All Layer Change, Elimination of 12V Capacitor Approve Date 10-Nov-2017

Product Attributes

Attributes	Qual Device: LMV844MA/NOPB Rev B, New Design (all Layer change)	QBS Product Reference: LMV842QMA/NOPB	QBS Process Package Reference: LMP8601QMAX
Assembly Site	TIEM-MALACCA	TIEM-MALACCA	TIEM-MALACCA
Package Family	SOIC	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	MFAB	MFAB	MFAB
Wafer Fab Process	VIP50CLZ3	VIP50CLZ3	VIP50CLZ3

- QBS: Qual By Similarity

- Qual Device LMV844MAX/NOPB is qualified at LEVEL1-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: LMV844MA/NOPB Rev B, New Design (all Layer change)	QBS Product Reference: LMV842QMA/NOPB	QBS Process Package Reference: LMP8601QMA
AC	Autoclave 121C	96 Hours	-	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	3/90/0	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	3/231/0
THBT	Temperature, Humidity Bias Test 85°C, 85%RH	1000 Hours	-	-	-
HBM	ESD - HBM	2500 V	1/3/0	-	-
CDM	ESD - CDM	1000 V	1/3/0	-	-
HTOL	Life Test, 125C	1000 Hours	2/154/0	3/231/0	3/231/0
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	-	1/77/0
LU	Latch-up	(per JESD78)	1/6/0	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	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.

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