12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20160818000
OPA857IRGTR/OPA857IRGTT Design Change and Datasheet Updates
Change Notification / Sample Request

Date: December 05, 2016
To: MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

PCN Team
SC Business Services

20160818000
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
OPA857IRGTT	null

Technical details of this Product Change follow on the next page(s).

PCN Number:	20160818000	**PCN Date:**	Dec. 5, 2016
Title:	OPA857IRGTR/OPA857IRGTT Design Change and Datasheet Updates		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Mar. 5, 2017	**Estimated Sample Availability:**	Date provided at sample request.

Change Type:					
☐	Assembly Site	☐	Assembly Process	☐	Assembly Materials
☒	Design	☒	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process
		☐	Part number change		

PCN Details

Description of Change:

This notification is to inform of a design change to the OPA857IRGTx. Affected devices are listed in the Product Affected section of this document. The design changes are summarized as follows:

The design change is a metal change to prevent low-level oscillations at a frequency greater than 4 GHz.

The datasheet number will be changing:

Current	**New**
Datasheet Number	**Datasheet Number**
SBOS630C	SBOS630D

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

OPA857 Ultralow-Noise, Wideband, Selectable-Feedback Resistance Transimpedance Amplifier

4 Revision History

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

Changes from Revision C (April 2014) to Revision D	Page
• Changed Features bullets	1
• Changed "Precision" to "High-Speed" in 2nd Applications bullet	1
• Changed pin configuration drawing and pin functions table	4
• Changed Handling Ratings table to ESD Ratings and moved storage temperature to Absolute Maximum Ratings	5
• Changed *Supply Input Voltage* min value from 3.0 to 2.7 in Recommended Operating Conditions	5
• Changed VOUT unit from V_P to V_{PP} in Electrical Charateristics condition line	6
• Changed all *AC Performance* values except *Closed-Loop Output Impedance*	6
• Changed test conditions for *Equivalent Input-Referred Current Noise* parameter in Electrical Characteristics	6
• Deleted *Operating Voltage* from Electrical Characteristics; already in Recommended Operating Conditions	7
• Deleted *Temperature Range* from Electrical Characteristics; already in Recommended Operating Conditions	7
• Changed all plots in Typical Characteristics section except figures 17, 35, and 36	8
• Changed 4.5 kΩ and 18.2 kΩ to 5 kΩ and 20 kΩ, respectively, in first paragrpah of *Overview* section	14
• Changed text in *Transimpedance Amplifier (TIA) Block* section	15
• Changed text in *Reference Voltage (REF) Block* section	15
• Changed text in *Integrated Test Structure (TEST) Block* section	15
• Changed Table 2 values	17
• Added *Test Mode* section	17
• Changed *Application Information* section	18
• Changed Figure 50; updated pin names	24

These changes may be reviewed at the datasheet link provided:
http://www.ti.com/lit/ds/symlink/opa857.pdf

Reason for Change:

Improved device functionality

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

None

Product Affected: Design Change and datasheet updates

OPA857IRGTR	OPA857IRGTT

Qualification Report

OPA857IRGT die revision to fix oscillation

Approve Date 29-Jun-2016

Updated 07/01/2016-Added QBS Data

Product Attributes

Attributes	Qual Device: OPA857IRGT	QBS Product Reference: OPA857IRGT	QBS Process Reference: CDCM18014RGC	QBS Process Reference: CDCMH52005V3RG	QBS Package Reference: HD3SS0001RLL_PG3.0	QBS Package Reference: HD3SS0001RLL_PG2.0
Assembly Site	CLARK AT	CLARK AT	UTAC	UTAC	CLARK-AT	CLARK-AT
Package Family	VQFN	VQFN	VQFN	QFN	QFN	QFN
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	FFAB	FFAB	FFAB	FFAB	FFAB	FFAB
Wafer Process	1833BICOM3ZL	1833BICOM3ZL	1833BICOM3ZL	1833BICOM3ZL	1833BICOM3ZL_RF	1833BICOM3ZL_RF

- QBS: Qual By Similarity
- Qual Device OPA857IRGT is qualified at LEVEL2-260CG

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: OPA857IRGT	QBS Product Reference: OPA857IRGT	QBS Process Reference: CDCM18014RGC	QBS Process Reference: CDCMH52005V3RG	QBS Package Reference: HD3SS0001RLL_PG3.0	QBS Package Reference: HD3SS0001RLL_PG2.0
AC	Autoclave 121C	96 Hours	-	1/77/0	1/77/0	2/154/0	-	1/77/0
ED	Electrical Characterization	Per Datasheet Parameters	Pass	Pass	Pass	Pass	Pass	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	1/77/0	2/154/0	2/149/0	1/77/0
HBM	ESD - HBM	2000 V	1/3/0	-	-	-	3/9/0	-
CDM	ESD - CDM	500 V	1/3/0	-	1/3/0	-	-	-
HTOL	Life Test, 150C	300 Hours	-	1/77/0	-	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	1/77/0	2/153/0	1/77/0	-
HTOL	Life Test, 140C	480 Hours, Vcc=4V	-	-	-	-	-	-
HTSL	High Temp. StorageBake, 150C	1000 Hours	-	-	1/77/0	2/152/0	-	-
HTSL	High Temp. StorageBake, 170C	420 Hours	-	-	-	-	2/154/0	1/77/0
LU	Latch-up	(per JESD78)	1/6/0	2/12/0	1/6/0	2/12/0	3/15/0	-
PD	Physical Dimensions	--	-	-	-	-	3/60/0	-
SD	Solderability	Pb-Free	-	-	-	-	1/25/0	2/50/0
SD	Surface Mount Solderability	Pb	-	-	-	-	1/25/0	2/50/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	1/77/0	2/154/0	2/154/0	1/77/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	-	1/77/0	-	-	2/154/0	1/77/0
WBP	Bond Pull	Wires	-	-	1/76/0	1/76/0	3/228/0	-
WBS	Ball Bond Shear	Wires	-	-	1/76/0	1/76/0	3/228/0	-

- 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