PCN Number:	20211220000.1	PCN Date:	December 21, 2021
Title:	Qualification of new Fab site (FFAB) using qualified Process Technology, Die Revision, Datasheet update and additional Assembly site/BOM options for select devices		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Mar 21, 2022	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:

Texas Instruments is pleased to announce the qualification of a new fab & process technology (FFAB, BICOMHD) and assembly site/BOM options (CDAT) for selected devices as listed below in the product affected section.

Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
SFAB	CBC10	150 mm	FFAB	BICOMHD	200 mm

The die was also changed as a result of the process change.

Construction differences are noted below:

What	MLA	CDAT
Mold Compound	4208625	4222198
Mount Compound	4205846	4224264
Bond Wire Composition/Diameter	Au/0.96 mil	Cu/1.0 mil

The datasheet will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history. The link to the revised datasheet is available in the table below.

Product Family	Current Datasheet Number	New Datasheet Number	Link to full datasheet
OPA2673	SBOS382F	SBOS382G	http://www.ti.com/product/OPA2673

Changes from Revision F (April 2010) to Revision G (December 2021) **Page**

- Added *Device Information* table, *Pin Functions* table, *ESD Ratings* table, *Recommended Operating Conditions* table, *Thermal Information* table, *Overview* section, *Functional Block Diagram* section, *Feature Description* section, *Device Functional Modes* section, *Application and Implementation* section, *Power Supply Recommendations* section, *Layout* section, *Device and Documentation Support* section, and *Mechanical, Packaging, and Orderable Information* section 1
- Updated the numbering format for tables, figures, and cross-references throughout the document..... 1

- Changed the title of the *Related Products* section to *Device Family Comparison Table* 4
- Deleted *Package/Ordering Information* table..... 4
- Changed the title of the *Pin Configuration* section to *Pin Configuration and Functions* 5
- Changed QFN to VQFN throughout the document..... 5
- Changed all input pin current limit from ±30 mA to ±10 mA..... 6
- Added new thermal metric table..... 7
- Changed SSBW across temperaure at G = 4 V/V from 260 MHz to 300 MHz..... 7
- Changed SSBW across temperaure at G = 8 V/V from 260 MHz to 300 MHz..... 7
- Added new specifications for LSBW at gain of 9 V/V and 8 V/V..... 7
- Changed LSBW at G = 4 V/V from 300 MHz to 144 MHz 7
- Changed Slew Rate specification from 3000 V/µs to 3500 V/µs..... 7
- Changed HD2 from -68 dBc to -70 dBc..... 7
- Changed HD3 from -72 dBc to -73 dBc..... 7
- Changed noninverting input current noise from 5.2 pA/√Hz to 3 pA/√Hz..... 7
- Changed inverting input current noise from 35 pA/√Hz to 25 pA/√Hz..... 7
- Changed crosstalk from -92 dBc to -85 dBc..... 7
- Changed typical noninverting input resistance from 1.5 MΩ to 3 MΩ..... 7
- Changed minimum inverting input resistance from 16Ω to 10Ω..... 7
- Changed typical short circuit current limit from ±800 mA to ±1000 mA..... 7
- Changed typical closed-loop output impedance from 10 mΩ to 0.4 mΩ..... 7
- Changed maximum quiescent current at full bias from 38 mA to 42 mA..... 7
- Changed maximum quiescent current across temperature at full bias from 42 mA to 46 mA 7
- Added +PSRR specification..... 7
- Added AC performance data at 75% Bias..... 9
- Changed HD3 spec at 75% bias from -66 dBc to -72 dBc..... 9
- Changed maximum quiescent current at 75% bias from 29 mA to 31 mA..... 9
- Added AC performance data at 50% Bias..... 10
- Changed HD3 spec at 50% bias from -60 dBc to -70 dBc..... 10
- Quiescent current at 75% and 50% bias condition at room temperature and across temperature increased by 2mA..... 10
- Changed maximum quiescent current at full bias from 19 mA to 21 mA..... 10

Qual details are provided in the Qual Data Section.

Reason for Change:

These changes are part of our multiyear plan to transition products from our 150-milimeter factories to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

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

None

Impact on Environmental Ratings

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
SH-BIP-1	SHE	USA	Sherman
FR-BIP-1	**TID**	**DEU**	**Freising**

Die Rev:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
B	**A**

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
TI Malaysia	MLA	MYS	Kuala Lumpur
TI Chengdu	**CDA**	**CHN**	**Chengdu**

Sample product shipping label (not actual product label)

Product Affected:

OPA2673IRGVR	OPA2673IRGVT

Qualification Report

Approve Date 17-Nov-2021

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

Type	Test Name / Condition	Duration	Qual Device: OPA2673IRGVR	QBS Process Reference: OPA2810IDGK	QBS Package Reference: PTPS274160ARLH	QBS Package Reference: PTPS274160BRLH	QBS Package Reference: TLV76790QWDRBRQ1
HTOL	Life Test, 125C	1000 Hours	-	3/231/0	-	-	1/77/0
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/3000/0	-	-	-
HBM	ESD - HBM	2000 V	1/3/0	3/9/0	-	-	-
HBM	ESD - HBM	2500 V	1/3/0	3/9/0	-	-	-
CDM	ESD - CDM	1500 V	1/3/0	3/9/0	-	-	-
LU	Latch-up	Per JESD78	1/6/0	3/18/0	-	-	-
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	3/90/0	1/30/0	2/60/0	-
AC	Autoclave 121C	96 Hours	-	-	1/77/0	2/154/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	1/77/0	2/154/0	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	3/231/0	1/77/0	2/154/0	-
HTSL	High Temperature Storage, 175C	500 Hours	-	-	-	-	3/231/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	3/231/0	1/77/0	2/154/0	3/231/0
UHAST	Unbiased HAST 130C/85%RH	96 Hours	1/77/0	3/231/0	-	-	3/231/0

- QBS: Qual By Similarity
- Qual Device OPA2673IRGVR is qualified at LEVEL2-260CG

- 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 contacts shown below or your local Field Sales Representative.

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