



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250326007.1

**Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet
and additional Assembly BOM options for select devices
Change Notification / Sample Request**

Date: March 27, 2025

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments (TI). The details of this change are on the following pages, and are in alignment with our standard product change notification (PCN) [process](#)

TI requires acknowledgement of receipt of this notification within 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 days of this notification, given that samples are not built ahead of the change.

The Proposed First Ship date in this PCN letter is the earliest possible date that customers could receive the changed material. It is our commitment that the changed device will not ship before that date. If samples are requested within the 60 day sample request window, customers will still have 30-days to complete their evaluation regardless of the proposed 1st ship date.

Changes outlined in this notification underscore our commitment to product longevity and supply continuity, as well as our continued efforts to transition to newer, more efficient manufacturing processes and technologies. Specifically, this particular notification is related to TI's multiyear transition plan for our two remaining 150-millimeter production lines (DFAB in Dallas, Texas, and SFAB in Sherman, Texas). SFAB closure activities are expected to begin by the end of 2025. DFAB will remain open with a smaller set of 200mm technologies and GaN.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the Change Management team. For sample requests or sample related questions, contact your local Field Sales Representative. As always, we thank you for your continued business.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Change Management Team
SC Business Services

20250326007.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
INA106U/2K5	
INA106U/2K5	
INA133UA/2K5	
INA105KP	
INA133U/2K5	
INA133UA/2K5	
INA106KP	
INA105KP	
INA105KU/2K5	
INA133U/2K5	

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

PCN Number:	20250326007.1	PCN Date:	March 27, 2025
Title:	Qualification of RFAB using qualified Process Technology, Die Revision, Datasheet and additional Assembly BOM options for select devices		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	June 25, 2025	Sample requests accepted until:	May 26, 2025*

***Sample requests received after May 26, 2025 will not be supported.**

Change Type:

☐	Assembly Site	☒	Design	☐	Wafer Bump Material
☒	Assembly Process	☒	Data Sheet	☐	Wafer Bump Process
☒	Assembly Materials	☐	Part number change	☒	Wafer Fab Site
☐	Mechanical Specification	☐	Test Site	☒	Wafer Fab Material
☒	Packing/Shipping/Labeling	☐	Test Process	☒	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the addition of RFAB using the HPA07HV qualified process technology and additional Assembly BOM options for the devices listed below.

Current Fab Site			Additional Fab Site		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
SFAB	JIBB	150 mm	RFAB	HPA07HV	300 mm

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

Construction differences are as follows (Group 1: MLA BOM updates):

	Current	Proposed
Wire diam/type	1.2mil, 1.15mil Au	0.8mil Cu
Mold compound	4209640	4226323
Die Attach Material	4205846	4147858

Construction differences are as follows (Group 2: FMX BOM updates):

	Current	Proposed
Wire diam/type	1.31mil Au, 0.96mil Cu	0.8mil Cu
Marking differences	BB logo, pin 1 dot	TI logo, pin 1 dot

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



INA133, INA2133
SBOS115A – JUNE 1999 – REVISED MARCH 2025

Changes from Revision * (June 1999) to Revision A (March 2025)	Page
• Updated the numbering and format for tables, figures, and cross-references throughout the document.....	1
• Added the Pin Configuration and Functions, Specifications, Recommended Operating Conditions, Thermal Information, Detailed Description, Overview, Functional Block Diagram, Feature Description, Device Functional Modes, Application and Implementation, Power Supply Recommendations, Layout, Layout Guidelines, Layout Example, Device and Documentation Support, and Mechanical, Packaging, and Orderable Information sections.....	1
• Changed the Package Information table.....	1
• Added Pin Functions table for INA133 and INA2133.....	3
• Added test conditions to Electrical Characteristics table.....	6
• Combined $V_S = \pm 15V$ and $V_S = \pm 5V$ specification table in Electrical Characteristics	6
• Changed parameter name in Electrical Characteristics from Offset Voltage Initial vs Temperature to Offset voltage drift	6
• Changed parameter name in Electrical Characteristics from Offset Voltage Initial vs Power Supply to Power supply rejection ratio	6
• Changed parameter name in Electrical Characteristics from Offset Voltage vs Time to Long-term stability	6
• Changed parameter name in Electrical Characteristics from Current Limit, Continuous-to-Common to Short-circuit current and added test condition.....	6
• Moved the power supply and temperature ranges from the Electrical Characteristics table to the Recommended Operating Conditions and Absolute Maximum Ratings table.....	6
• Changed the Applications section.....	14



INA105

SBOS145A – AUGUST 1993 – REVISED MARCH 2025

Changes from Revision * (August 1993) to Revision A (March 2025)	Page
• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1
• Added the Pin Configuration and Functions, Specifications, Recommended Operating Conditions, Thermal Information, Detailed Description, Overview, Functional Block Diagram, Feature Description, Device Functional Modes, Application and Implementation, , Power Supply Recommendations, Layout, Layout Guidelines, Layout Example, Device and Documentation Support, and Mechanical, Packaging, and Orderable Information sections.....	1
• Added test conditions throughout Electrical Characteristics table.....	5
• Changed Offset Voltage vs Time to Long-term stability in Electrical Characteristics	5
• Changed Current limit to Short-circuit current for sinking and sourcing scenario.....	5
• Moved Power Supply Voltage Range and Temperature Range from Electrical Characteristics to Recommended Operating Conditions and Absolute Maximum Ratings table.....	5



INA106

SBOS152B – AUGUST 1987 – REVISED MARCH 2025

Changes from Revision A (October 2003) to Revision B (March 2025)	Page
• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1
• Added the Pin Configuration and Functions, Specifications, Recommended Operating Conditions, Thermal Information, Detailed Description, Overview, Functional Block Diagram, Feature Description, Device Functional Modes, Application and Implementation, Power Supply Recommendations, Layout, Layout Guidelines, Layout Example, Device and Documentation Support, and Mechanical, Packaging, and Orderable Information sections	1
• Changed <i>Precision Gain = 10 Differential Amplifier</i> graphic.....	1
• Added Junction temperature rating in <i>Absolute Maximum</i> table.....	4
• Added more test conditions to the <i>Electrical Characteristics</i> table.....	5
• Changed parameter name in <i>Electrical Characteristics</i> from: <i>Offset voltage vs Temperature to Offset voltage drift</i>	5
• Changed parameter name in <i>Electrical Characteristics</i> from: <i>Offset voltage vs Supply to Power-supply rejection ratio</i>	5
• Changed parameter name in <i>Electrical Characteristics</i> from: <i>Offset Voltage vs Time to Long-term stability</i>	5
• Updated Voltage noise specification in <i>Electrical Characteristics</i> from 1µV _{PP} to 1.5µV _{PP}	5
• Changed output current parameter in <i>Electrical Characteristics</i> from <i>Current Limit</i> to <i>Short-circuit current</i> for sinking and sourcing scenario.....	5
• Updated Full Power Bandwidth in <i>Electrical Characteristics</i> to show bandwidth accounting for the closed loop gain.....	5
• Moved the power supply voltage and temperature ranges from the <i>Electrical Characteristics</i> table to the <i>Absolute Maximum Ratings</i> table.....	5
• Changed the Applications section.....	10
• Changed Figure 7-1	10
• Changed Figure 7-2	10
• Changed Figure 7-6	12

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
INAx133	SBOS115	SBOS115A	http://www.ti.com/product/INA133
INA105	SBOS145	SBOS145A	http://www.ti.com/product/INA105
INA106	SBOS152A	SBOS152B	http://www.ti.com/product/INA106

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-millimeter 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
RFAB	RFB	USA	Richardson

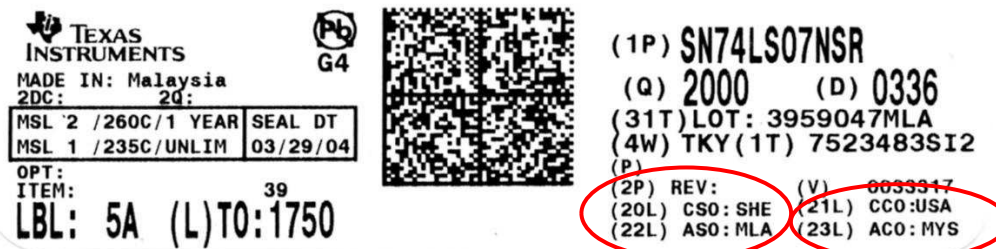
Die Rev:

Current

New

Die Rev [2P]	Die Rev [2P]
A	A

Sample product shipping label (not actual product label):



Product Affected:

Group 1 Device (MLA BOM updates):

INA105KU/2K5	INA106U/2K5	INA133U/2K5	INA133UA/2K5
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Group 2 Device (FMX BOM updates):

INA105KP	INA106KP
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For alternate parts with similar or improved performance, please visit the product page on [TI.com](https://www.ti.com)

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: INA105KU	QBS Package Reference: LMC6482IM/NOPB	QBS Package Reference: TCAN1043GDRQ1	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: INA231BIYFDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	1/77/0	-	3/231/0	3/231/0	-
UHA	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	-	-	-
UHA	A3	Unbiased HAST	130C/85%RH	96 Hours	-	3/231/0	-	3/231/0	3/231/0	-
TC	A4	Temperature Cycle	-55C/125C	700 Cycles	-	-	-	3/231/0	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	3/231/0	3/231/0	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0	3/231/0	2/154/0
HTOL	B1	Life Test	140C	480 Hours	-	-	-	1/77/0	2/154/0	-
HTOL	B1	Life Test	150C	300 Hours	-	3/231/0	-	-	-	2/154/0
ELFR	B2	ELFR	125C	48 Hours	-	-	-	1/1000/0	2/2000/0	-

Type	#	Test Name	Condition	Duration	Qual Device: <u>INA105KU</u>	QBS Package Reference: <u>LMC6482IM/NOBP</u>	QBS Package Reference: <u>TCAN1043GDRQ1</u>	QBS Process Reference: <u>CD3232A1YFFR</u>	QBS Process Reference: <u>CD3232A1YFFR</u>	QBS Process Reference: <u>INA231BIYFDR</u>
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	-	2/2000/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	3/66/0	-	-	-
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	-	3/60/0	3/60/0	2/40/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3/30/0	-	-	-
ESD	E2	ESD CDM	-	200 Volts	-	-	-	-	3/9/0	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	-	-	-	2/6/0
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	1/3/0	-	3/9/0	3/9/0	2/6/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	1/3/0	-	3/9/0	3/9/0	2/12/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	3/90/0	-	1/30/0	1/30/0	2/60/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device INA105KU is qualified at MSL1 260C
- 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/>

TI Qualification ID: R-CHG-2306-025

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: <u>INA133U</u>	QBS Product Reference: <u>INA105KU</u>	QBS Package Reference: <u>LMC6482IM/NOBP</u>	QBS Package Reference: <u>TCAN1043GDRQ1</u>	QBS Process Reference: <u>CD3232A1YFFR</u>	QBS Process Reference: <u>CD3232A1YFFR</u>	QBS Process Reference: <u>INA231AIYFDR</u>	QBS Process Reference: <u>INA231BIYFDR</u>
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	1/77/0	-	3/231/0	3/231/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-	3/231/0	3/231/0	-	-
TC	A4	Temperature Cycle	-55C/125C	700 Cycles	-	-	-	-	3/231/0	3/231/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	-	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	3/231/0	3/231/0	1/77/0	2/154/0
HTOL	B1	Life Test	140C	480 Hours	-	-	-	-	1/77/0	2/154/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	1/77/0	2/154/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	1/1000/0	2/2000/0	1/1000/0	2/2000/0
ESD	E2	ESD CDM	-	250 Volts	-	1/3/0	1/3/0	-	-	-	-	2/6/0
ESD	E2	ESD CDM	-	350 Volts	-	-	-	-	-	-	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	-	1/3/0	1/3/0	-	3/9/0	3/9/0	-	2/6/0

Type	#	Test Name	Condition	Duration	Qual Device: INA133U	QBS Product Reference: INA105KU	QBS Package Reference: LMC6482IM/NOPB	QBS Package Reference: TCAN1043GDRQ1	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: INA231AIYFDR	QBS Process Reference: INA231BIYFDR
ESD	E2	ESD HBM	-	1500 Volts	-	-	-	-	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	1/3/0	1/3/0	-	3/9/0	3/9/0	1/6/0	2/12/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	3/90/0	-	1/30/0	1/30/0	1/30/0	2/60/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device INA133U is qualified at MSL1 260C

- 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/>

TI Qualification ID: R-CHG-2401-050

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: INA106U	QBS Product Reference: INA106KP	QBS Package Reference: LMC6482IM/NOPB	QBS Package Reference: TCAN1043GDRQ1	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: INA231AIYFDR	QBS Process Reference: INA231BIYFDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	1/77/0	-	3/231/0	3/231/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-	3/231/0	3/231/0	-	-
TC	A4	Temperature Cycle	-55C/125C	700 Cycles	-	-	-	-	3/231/0	3/231/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	-	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	-	3/231/0	3/231/0	1/77/0	2/154/0
HTOL	B1	CL (FF)	125C	1000 Hours	-	-	-	-	-	1/45/0	-	-
HTOL	B1	CL (FS)	125C	1000 Hours	-	-	-	-	-	1/32/0	-	-
HTOL	B1	CL (SF)	125C	1000 Hours	-	-	-	-	-	1/32/0	-	-
HTOL	B1	CL (SS)	125C	1000 Hours	-	-	-	-	-	1/45/0	-	-
HTOL	B1	Life Test	140C	480 Hours	-	-	-	-	1/77/0	2/154/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	1/77/0	2/154/0

Type	#	Test Name	Condition	Duration	Qual Device: INA106U	QBS Product Reference: INA106KP	QBS Package Reference: LMC6482IMINOPB	QBS Package Reference: TCAN1043GDRQ1	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: INA231AIYFDR	QBS Process Reference: INA231BIYFDR
ELFR	B2	ELFR	125C	48 Hours	-	-	-	-	1/1000/0	2/2000/0	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	-	-	1/1000/0	2/2000/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	3/66/0	-	-	-	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes); PB-Free Solder;	-	-	-	-	-	3/66/0	3/66/0	-	-
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-	-	-	3/60/0	3/60/0	1/20/0	2/40/0
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	3/30/0	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	1/3/0	-	-	-	1/3/0	2/6/0
ESD	E2	ESD HBM	-	1000 Volts	-	1/3/0	1/3/0	-	3/9/0	3/9/0	-	2/6/0
ESD	E2	ESD HBM	-	1500 Volts	-	-	-	-	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	1/3/0	1/3/0	-	3/9/0	3/9/0	1/6/0	2/12/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	1/30/0	3/90/0	-	1/30/0	1/30/0	1/30/0	2/60/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device INA106U is qualified at MSL1 260C
- 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/>

TI Qualification ID: R-CHG-2401-049

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: INA106KP	QBS Package Reference: NE5532P	QBS Package Reference: UCC37322P	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: INA231AIYFDR	QBS Process Reference: INA231BIYFDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	3/231/0	-	3/231/0	3/231/0	-	-
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	-	-	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	3/231/0	-	-
TC	A4	Temperature Cycle	-55C/125C	700 Cycles	-	-	-	3/231/0	3/231/0	-	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	-	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	3/231/0	3/231/0	3/231/0	1/77/0	2/154/0
HTOL	B1	Life Test	140C	480 Hours	-	-	-	1/77/0	2/154/0	-	-
HTOL	B1	Life Test	150C	300 Hours	-	3/231/0	-	-	-	1/77/0	2/154/0
ELFR	B2	ELFR	125C	48 Hours	-	-	-	1/1000/0	2/2000/0	-	-

Type	#	Test Name	Condition	Duration	Qual Device: INA106KP	QBS Package Reference: NE5532P	QBS Package Reference: UCC37322P	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: INA231AIYFDR	QBS Process Reference: INA231BIYFDR
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	-	1/1000/0	2/2000/0
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	3/66/0	3/66/0	-	-	-	-
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-	3/9/0	-	2/6/0
ESD	E2	ESD CDM	-	350 Volts	-	-	-	-	-	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	3/9/0	3/9/0	-	2/6/0
ESD	E2	ESD HBM	-	1500 Volts	-	-	-	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	3/9/0	3/9/0	1/6/0	2/12/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	1/30/0	1/30/0	1/30/0	2/60/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device INA106KP is qualified at NOT CLASSIFIED NOT CLASSIFIED
- 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/>

TI Qualification ID: R-CHG-2402-056

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: INA105KP	QBS Product Reference: INA105KU	QBS Package Reference: NE5532P	QBS Package Reference: UCC37322P	QBS Package Reference: OPA2277P	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: CD3232A1YFFR	QBS Process Reference: INA231BIYFDR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	-	-	3/231/0	3/231/0	-
UHA	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-	-	-	-
UHA	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	1/77/0	3/231/0	3/231/0	-
TC	A4	Temperature Cycle	-55C/125C	700 Cycles	-	-	-	-	-	3/231/0	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	1/77/0	-	-	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	3/231/0	-	3/231/0	3/231/0	2/154/0
HTOL	B1	Life Test	140C	480 Hours	-	-	-	-	-	1/77/0	2/154/0	-
HTOL	B1	Life Test	150C	300 Hours	-	-	3/231/0	-	-	-	-	2/154/0
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	-	1/1000/0	2/2000/0	2/2000/0
SD	C3	PB-Free Solderability	8 Hours Steam Age	-	-	-	3/66/0	3/66/0	-	-	-	-

Type	#	Test Name	Condition	Duration	Qual Device: <u>INA105KP</u>	QBS Product Reference: <u>INA105KU</u>	QBS Package Reference: <u>NE5532P</u>	QBS Package Reference: <u>UCC37322P</u>	QBS Package Reference: <u>OPA2277P</u>	QBS Process Reference: <u>CD3232A1YFFR</u>	QBS Process Reference: <u>CD3232A1YFFR</u>	QBS Process Reference: <u>INA231BIYFDR</u>
ESD	E2	ESD CDM	-	250 Volts	1/3/0	1/3/0	-	-	1/3/0	-	-	2/6/0
ESD	E2	ESD HBM	-	1000 Volts	-	1/3/0	-	-	1/3/0	3/9/0	3/9/0	2/6/0
LU	E4	Latch-Up	Per JESD78	-	-	1/3/0	-	-	1/3/0	3/9/0	3/9/0	2/12/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/5/0	1/30/0	-	-	1/30/0	1/30/0	1/30/0	2/60/0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device INA105KP is qualified at NOT CLASSIFIED NOT CLASSIFIED
- 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/>

TI Qualification ID: R-CHG-2402-055

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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