

PCN# 20221216001.1 Qualification of RFAB as an additional Fab site option for select HPA07 devices Change Notification / Sample Request

Date:December 16, 2022To:PREMIER FARNELLPCN

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.

Texas Instruments requires acknowledgement of 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 samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (<u>PCN ww admin team@list.ti.com</u>). For sample requests or sample related questions, contact your local Field Sales Representative.

PCN Team SC Business Services

20221216001.1 Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, 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

OPA4171AIDR

CUSTOMER PART NUMBER

null

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

	PCN Number: 20221216001.1 PC							
Title: Qualification of RFAB as an additional Fab site option for select HPA07 devices								
Customer Contact:	<u>P(</u>	<u>CN Manager</u>		Dept:	Qua	ality Services		
Proposed 1 st Ship Date	e: M	ar 16, 2023		e Reques	ts Jan	n 16, 2023 *		
		after January 16, 2023 will not be supported.						
Change Type:	elved al	ter January	10, 2025 WIII I	iot be sup	portea.			
Assembly Site		Assembly	Process		Assembly	^v Materials		
Design			Specification		Mechanical Specification			
Test Site			hipping/Labeling		Test Proc			
Wafer Bump Site		-	mp Material			mp Process		
Wafer Fab Site			Materials		Wafer Fat	b Process		
			per change N Details					
Description of Change		FCI	Details					
Texas Instruments is ple		announce the	e addition of RFA	B as an ac	ditional	Wafer Fab site		
option for the products								
Current	Fab Site)		New F	ab Site			
Current Fab Pro Site	cess	Wafer Diameter	New Fab Site	Pro	cess	Wafer Diameter		
DP1DM5 HP	A07	200mm	RFAB	HP	A07	300mm		
Qual details are provided	d in the C	Qual Data Sec	tion.					
Reason for Change:								
Reason for Change:								
Continuity of supply								
	Form, F	Fit, Function,	, Quality or Rel	iability (p	positive	/ negative):		
Continuity of supply	Form, F	Fit, Function	, Quality or Rel	iability (p	positive	/ negative):		
Continuity of supply Anticipated impact on	-				positive	/ negative):		
Continuity of supply Anticipated impact on None Changes to product id	entificat				positive	/ negative):		
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information	entificat	tion resultin	g from this PC	N:				
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information	entificat	tion resultin rigin Code		N: ountry		/ negative):		
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information	entificat : p Site O	tion resultin rigin Code L)	g from this PC	N: ountry				
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information Chip Site Chi	entificat : p Site O (20	tion resultin rigin Code L)	g from this PC Chip Site Co Code (21	N: ountry	Ch	nip Site City		
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information Chip Site DP1DM5 RFAB Sample product shipping	ientificat : p Site O (20 DM RF	tion resultin rigin Code L) 15 B	chip Site Co Code (21 USA USA	N: ountry	Ch	h ip Site City Dallas		
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information Chip Site DP1DM5 RFAB Sample product shipping TEXAS INSTRUMENTS MADE IN: Malaysia 20C: 20:	entificat p Site O (20 DM RF g label (n G4	tion resultin	Chip Site Co Code (21 USA USA duct label) (1P) \$N74L\$07N (Q) 2000 (N: Duntry L) SR D) 0336	Ch	h ip Site City Dallas		
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Continuity of supply Anticipated impact on None Changes to product id Fab Site Information Chip Site DP1DM5 RFAB Sample product shipping TEXAS INSTRUMENTS MADE IN: Malaysia 20C: 20: MSL '2 /260C/1 YEAR SEAL	entificat p Site O (20 DM RF g label (no G4	tion resultin	chip Site Co Code (21 USA USA duct label) (1P) \$N74L\$07N (Q) 2000 ((31T) LOT: 3959 (4W) TKY (1T) 75 (P) (2P) REV: (V)	N: Duntry L) SR D) 0336 047MLA 523483S12 0033317 L) 0033317	Ch	h ip Site City Dallas		
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Continuity of supply Anticipated impact on None Changes to product id Fab Site Information Chip Site DP1DM5 RFAB Sample product shipping TEXAS INSTRUMENTS MADE IN: Malaysia 200: 201 MSL 1 / 235C/UNLIM 03/29 OPT: ITEM: 39 LBL: 5A (L)T0: 175	entificat p Site O (20 DM RF g label (n G4	tion resultin	Chip Site Co Code (21 USA USA duct label) (1P) \$N74L\$07N (Q) 2000 ((31T)LOT: 3959 (4W) TKY (1T) 75 (2P) REV: (V) (20L) CSO: SHE (21)	N: Duntry L) SR D) 0336 047MLA 523483S12 0033317 L) CCO:USA L) ACO: MYS	Ch	hip Site City Dallas Richardson		
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information Chip Site DP1DM5 RFAB Sample product shipping MADE IN: Malaysia 20: 20: MSL 2 /260C/1 YEAR SEAL I MSL 1 /235C/UNLIM 03/29 OPT: ITEM: 39 LBL: 5A (L)T0:175 Product Affected:	entification p Site O (20) DM RF g label (n G4	tion resultin	Chip Site Co Code (21 USA USA duct label) (1P) \$N74L\$07N (Q) 2000 ((31T)LOT: 3959 (4W) TKY (1T) 75 (P) REV: (V) (2P) REV: (V) (2D) CSO: SHE (21 (22L) ASO: MLA (23)	N: Duntry L) SR D) 0336 047MLA 523483S12 0033317 L) CCO: MYS	Ch R	hip Site City Dallas tichardson		
Continuity of supply Anticipated impact on None Changes to product id Fab Site Information Chip Site DP1DM5 RFAB Sample product shipping TEXAS INSTRUMENTS MADE IN: Malaysia 20: MSL 2 /260C/1 YEAR SEAL I MSL 1 /235C/UNLIM 03/29 OPT: ITEM: 39 LBL: 5A (L)T0:175 Product Affected: OPA171AID	entification p Site O (20) DM RF g label (n G4	tion resultin	Chip Site Co Code (21 USA USA USA duct label) (1P) SN74LS07N (Q) 2000 ((31T) LOT: 3959 (4W) TKY (1T) 75 (P) (2P) REV: (V) (2DL) CSO: SHE (21 (22L) ASO: MLA (23) (22L) ASO: MLA (23) (23)	N: Duntry L) SR D) 0336 047MLA 523483S12 0033317 L) CC0:USA L) ACO: MYS	Ch R	hip Site City Dallas Richardson		

Texas Instruments Incorporated

TI Information - Selective Disclosure

PCN# 20221216001.1

OPA171AIDRLR	OPA2171AIDR	TLV171IDBVT	TLV4171IDR	
OPA171AIDRLT	OPA4171AID	TLV171IDR	TLV4171IPWR	
OPA2171AID				

Qualification Report Approve Date 15-DECEMBER -2022

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: OPA4171AIDR	Qual Device: <u>OPA4171AIPWR</u>	QBS Reference: <u>OPA4991QDRQ1</u>	QBS Reference: <u>TLV4197QPWRQ1</u>	QBS Reference: CD3232A1YFFR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	3/231/0	1/77/0	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	3/231/0	-	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	1/77/0	3/231/0
тс	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	1/77/0	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	2/154/0	1/77/0	-
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	1/45/0	1/45/0	3/231/0
HTOL	B1	Life Test	140C	480 Hours	-	-	-	1/77/0	2/154/0
HTOL	B1	Life Test	150C	300 Hours	1/77/0	-	-	-	-
ELFR	B2	ELFR	125C	48 Hours	-	-	-	-	2/2000/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	-	-	1/6/0	1/6/0	3/18/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-	1/30/0

• QBS: Qual By Similarity

Qual Device OPA4171AIDR is qualified at MSL3 260C

Qual Device OPA4171AIPWR is qualified at MSL2 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/

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

Qualification Report Approve Date 15-DECEMBER -2022

Oualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: OPA2171AIDR	Qual Device: <u>OPA2171AIDCUR</u>	Qual Device: <u>OPA2171AIDGKR</u>	QBS Reference: SN74LVC2G66QDCURQ1	QBS Reference: OPA4991QDRQ1	QBS Reference: TCA9517DGKRQ1	QBS Reference: OPA4171AIDR	QBS Reference: CD3232A1YFFR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-		3/231/0	3/231/0	3/231/0	-	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours		-	-	3/231/0	3/231/0	3/231/0	-	
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	-	-	-	-	3/231/0
тс	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	2/154/0	3/231/0	-	3/231/0
HTSL	A6	High Temperature Storage Life	170C	420 Hours	-	-	-	1/45/0	1/45/0	1/45/0	-	3/231/0
HTOL	81	Life Test	140C	480 Hours	-	-	-	-	-	-	-	2/154/0
HTOL	81	Life Test	150C	300 Hours	-	-	-	-	-	-	1/77/0	-
ELFR	82	ELFR	125C	48 Hours	-	-	-	-	-	-	-	2/2000/0
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	1/15/0	-	1/15/0	-	3/66/0
PD	C4	Physical Dimensions	(per mechanical drawing)	-	-	-		3/30/0	-	3/30/0	-	3/60/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-		-		-	1/3/0	
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78	-	-	-	-	1/6/0	1/6/0	1/6/0	-	3/9/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0		-	-	-	-	1/30/0	1/30/0

QBS: Qual By Similarity

Qual Device OPA2171AIDR is qualified at MSL2 260C

 Qual Device OPA2171AIDCUR is qualified at MSL1 260C Qual Device OPA2171AIDGKR is qualified at MSL2 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/

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

Qualification Report Approve Date 15-DECEMBER -2022

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: <u>OPA171AIDR</u>	Qual Device: OPA171AIDRLR	Qual Device: OPA171AIDBVR	Package QBS Reference: <u>INA828ID</u>	Package QBS Reference: <u>TMP390AQDRLRQ1</u>	Package QBS Reference: <u>OPA388QDBVRQ1</u>	Process QBS Reference: <u>OPA4171AIDR</u>	Process QBS Reference: CD3232A1YFFR
HAST	A2	Biased HAST	130C/85%RH	96 Hours		-	-	3/231/0	3/231/0	3/231/0	-	3/231/0
UHAST	A3	Unbiased HAST	130C	96 Hours	-	-	-	3/231/0	3/231/0	3/231/0	-	3/231/0
тс	A4	Temperature Cycle	-65C/150C	500 Cycles		-	-	3/231/0	3/231/0	3/231/0	-	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/231/0	3/231/0	1/77/0	-	3/231/0
HTOL	B1	Life Test	140C	480 Hours		-	-	-	-	-	-	2/154/0
HTOL	В1	Life Test	150C	300 Hours		-	-	-	-	-	1/77/0	-
ELFR	B2	ELFR	125C	48 Hours		-	-		-	-	-	2/2000/0
ESD	E2	ESD CDM	-	250 Volts	1/3/0	-	-	1/3/0	-	-	1/3/0	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	1/3/0	-	-	1/3/0	-
LU	E4	Latch-Up	Per JESD78		-	-	-	1/6/0	-		-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters		1/30/0	-	-	3/90/0	-	-	1/30/0	1/30/0

QBS: Qual By Similarity
Qual Device OPA171AIDR is qualified at MSL2 260C

- Qual Device OPA171AIDRLR is qualified at MSL1 260C
- Qual Device OPA171AIDBVR is qualified at MSL2 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 FISE options based on an activation energy of 0.120 (120 Hours, and 170/420 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: <u>http://www.ti.com/</u> Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

For questions regarding this notice, e-mails can be sent to the contact shown below or your local Field Sales Representative.

Location	E-Mail				
WW Change Management Team	PCN ww admin team@list.ti.com				

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