

PCN # 2361G

DATE: June 30, 2023

EXPECTED PCN SHIP DATE: June 30, 2023



Quality Assurance
160 Rio Robles
San Jose, CA 95134

www.maximintegrated.com

PROCESS CHANGE NOTICE

PRODUCT CHANGE NOTICE

ANALOG DEVICES HEREBY ISSUES NOTIFICATION OF CHANGE
THAT MAY AFFECT THE FOLLOWING CATEGORIES:

<input type="checkbox"/> DESIGN	<input checked="" type="checkbox"/> WAFER FAB	<input type="checkbox"/> ASSEMBLY	<input type="checkbox"/> TEST	<input type="checkbox"/> ELEC/MECH SPECS
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AFFECTED PRODUCT:

Ordering P/N: (See PN listing XLS in PCN ZIP file)

CHANGE FROM: - Wafer size change for ADI products in S3EMK process Current 6-inch wafer size fabricated at ADI's Beaverton/Oregon foundry (ADBN)	CHANGE TO: - Move to 8-inch wafer size at same ADI's Beaverton/Oregon foundry (ADBN)
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JUSTIFICATION: -
ADI is moving to the 8-inch process to ensure adequate capacity for supply continuity.
ADI has been shipping products fabricated on 8-inch wafers in mass production from ADBN since 2010.

The 8-inch flow reliability/qualification report is attached.

The Form/Fit/Function of the devices is unchanged.

TRACEABILITY: Analog Device maintains full traceability by device marking, packaging labels and shipment documents.

Analog Devices's Change Notification System is designed to keep our customer base apprised of major product, manufacturing, or facility improvements.

Nasser Ali Chaouche

Nasser AliChaouche / PCN Coordinator

For further information, please contact either of the people listed below.

Contact your local Analog Devices Company Representative or Nasser AliChaouche, PCN Coordinator
408-601-5660 / pcn.coordinator@maximintegrated.com

Affected product numbers	Customer part number	PCN Proposed Ship Date
MAX690ACPA+		30-JUN-2023
MAX690ACSA+		30-JUN-2023
MAX690ACSA+T		30-JUN-2023
MAX690AEPA+		30-JUN-2023
MAX690AESA+		30-JUN-2023
MAX690AESA+T		30-JUN-2023
MAX690AMJA		30-JUN-2023
MAX690AMJA/883B		30-JUN-2023
MAX692ACPA+		30-JUN-2023
MAX692ACSA+		30-JUN-2023
MAX692ACSA+T		30-JUN-2023
MAX692AEPA+		30-JUN-2023
MAX692AESA+		30-JUN-2023
MAX692AESA+T		30-JUN-2023
MAX692AMJA		30-JUN-2023
MAX692AMJA/883B		30-JUN-2023
MAX703CPA+		30-JUN-2023
MAX703CSA+		30-JUN-2023
MAX703CSA+T		30-JUN-2023
MAX703EPA+		30-JUN-2023
MAX703ESA+		30-JUN-2023
MAX703ESA+T		30-JUN-2023
MAX704CPA+		30-JUN-2023
MAX704CSA+		30-JUN-2023
MAX704CSA+T		30-JUN-2023
MAX704ESA+		30-JUN-2023
MAX704ESA+T		30-JUN-2023
MAX706APESA+		30-JUN-2023
MAX706ARESA+		30-JUN-2023
MAX706ARESA+T		30-JUN-2023
MAX706AREUA+		30-JUN-2023
MAX706ASEPA+		30-JUN-2023
MAX706ASESA+		30-JUN-2023
MAX706ASESA+T		30-JUN-2023
MAX706ATESA+		30-JUN-2023
MAX706ATESA+T		30-JUN-2023
MAX792LCPE+		30-JUN-2023
MAX792LCSE+		30-JUN-2023
MAX792LCSE+T		30-JUN-2023
MAX792LEPE+		30-JUN-2023
MAX792SCSE+		30-JUN-2023
MAX792SCSE+T		30-JUN-2023
MAX792SESE+		30-JUN-2023
MAX792SESE+T		30-JUN-2023
MAX792TCSE+		30-JUN-2023
MAX792TESE+		30-JUN-2023

MAX802LCSA+		30-JUN-2023
MAX802LCSA+T		30-JUN-2023
MAX802LESA+		30-JUN-2023
MAX802LESA+T		30-JUN-2023
MAX805LCPA+		30-JUN-2023
MAX805LCSA+		30-JUN-2023
MAX805LCSA+T		30-JUN-2023
MAX805LEPA+		30-JUN-2023
MAX805LESA+		30-JUN-2023
MAX805LESA+T		30-JUN-2023
MAX820LCSE+		30-JUN-2023
MAX820LCSE+T		30-JUN-2023
MAX820LESE+		30-JUN-2023
MAX820TCSE+		30-JUN-2023
MAX820TCSE+T		30-JUN-2023
MAX820TESE+		30-JUN-2023
MAX820TESE+T		30-JUN-2023

1) **SCOPE**

MFN B3 Process Qualification

2) **QUALIFICATION REQUIREMENTS/ACCEPTANCE CRITERIA**

A minimum of three wafer lots need to be tested according to Table 1 below. Listed also are the defined sampling plans and acceptance criteria for full qualification.

Table 1: Qualification Tests

Standard Stress Tests	Test Conditions	Sampling Plan
HTOL	135°C, 1000 hours	0/77 or 3% LTPD
Infant Mortality Evaluation	135°C, 12 hours	300ppm target
Convection Reflow	260°C Peak, 3x reflow	0/150
HAST *	130°C / 85% R.H. 100 hours	0/45 or 5% LTPD
Temperature Cycle *	-65°C to 150°C, 500 cycles	0/77 or 3% LTPD
High Temperature Storage *	150°C, 1000 hours	0/77 or 3% LTPD
ESD (HBM)	2500V or actual rating	0/5 per voltage zap
Latch-Up	JESD78A	0/6 for current injection 0/6 for over voltage
Bond Pull, 5 grams min	Post Temp Cycle or Fresh units	0/5 units or 0/40 wires 0/20 units or 0/200 wires
Bond Crater*	Post convection reflow	0/20

Note: *.Convection reflow preconditioning is required for SMT package devices

3) QUALIFICATION TEST RESULTS

All samples from three MFN B3 qualification lots were stressed according to Table 1 and all samples have passed full qualification requirements.

Table 2: MFN B3 Qualification data

Rel:	R24952A	R24952B (note1)	R24952C (note1)	
Lot#:	J73AF2004B	J3KBH2038C	JO3AM2550B	
Device:	MAX3172EAI+	MAX1745AUB+	MAX3222EEUP+	
Die Type:	RS88Z	PX98Y-1Z	RS60V	
Die Size (mils):	144 x 233	88 x 75	91 x 159	
Date Code:	1019	1020	1023	
Process:	B3EIWK v3.0	B3EIWJK V3.0	B3EIMWK V3.0	
Test	Time	Result	Result	Result
HTOL 135°C	1000-hrs	0/77	0/77	0/77
IME 135°C	12-hrs	0/993	0/1964	0/1987
Convection Reflow	260°C Peak, 3x reflow	0/350	0/300	0/350
HAST	100-hrs	0/45	0/45	0/45
Temp. Cycle	500 X	0/77	0/77	0/77
High Temp. Storage	1000-hrs	0/77	0/77	0/77
ESD	2500V or actual rating	N/A	Pass 2500V	Pass 2500V
Latch-Up	JESD78A	Pass 100mA	Pass 100mA	Pass 100mA
Bond Pull	Fresh units or post temp. cycle	0/200 wires	0/5 units	0/200 wires
Bond Crater	Post reflow	0/20	0/20	0/20

Note 1: All post stress electrical tests were performed at +25C & +85C for MAX3222 and +125C for MAX1745. In addition, post stress electrical test was also performed at -40C for HTOL.

4) CONCLUSION

All B3 qualification lots from MFN fab have passed the reliability qualification tests. The process meets all reliability requirements. Therefore, MFN fab is qualified to fabricate products with the 8" process B3.