ZMDI The Analog Mixed Signal Company	**PCN No. (lfd. Nr./Jahr)**
PRODUCT/PROCESS CHANGE NOTIFICATION - PCN (Produkt/Prozess Änderungs-Anzeige)	**220/2012**

SUBJECT OF CHANGE, TITLE:
(Umstellungstitel)

Migration of wafer diameter at X-FAB Dresden from 6 inch to 8 inch

FAMILY, PRODUCT(S) AFFECTED:
(Produkt(e), -familien)

ZSC31010*
* all Versions beginning with Rev. C

MANUFACTURING LOCATION, PRODUCTION LINE:
(Prozesslinie)

X-FAB, 01109 Dresden, Grenzstraße 28

LEVEL OF CHANGE: (Änderungsart) Major Change

INFORMATION ONLY (no feedback required) ☐ CUSTOMER APPROVAL REQUIRED ☒

DESCRIPTION OF CHANGE:
(Änderungsbeschreibung)

- The existing 6” wafer manufacturing line at X-FAB Dresden will be migrated to 8” with full release by Q4 2010.
- The existing 6” wafer manufacturing line capacity will be stepped down and terminated.

The PCN procedure according to the international standard JEDEC 46C will apply.

In accordance with JEDEC 46C, ZMD will

a) migrate respective C7 products from 6” to 8”
b) announce a last time buy for C7 products not migrated to 8”

<u>Product Specific Upgrade Qualification Plan</u>

The qualification is based upon the international automotive standard AEC Q-100 Ref. G and comprised of the following reliability tests:

Table 2 Test #	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3	C4	C5	C6	D1	D2	D3	E2	E3	E4	E5	E7	E8	E9	G1-4	G5	G6	G7	G8
Rev. E Test #	5	6	7	8	3	2	26	25	18	17	24	14	19	15				21	21	22	28		27		9-12		16	20	23
Test	THB	AC	TC	PTC	HTSL	HTOL	ELFR	DER	WBS	WBP	SD	PD	SBS	LI	EM	TDDB	HCI	HBM/MM	CDM	LU	ED	CHAR	GL	EMC	MSEQ	DROP	LT	DS	IWV
Wafer Dimension			E	M		X	X		E	E								E	E	E	X								
Wafer Dimension (6"--> 8")						**X**	**X**												**E**	**E**	**X**								

X = mandatory for all changes in wafer dimension
E = only if wafer thickness change
M = only for devices requiring PTC

Based upon lead products – including ZSC31010 - comprising all primitives the Technology Family Qualification for the technology families includes:

- 1.000hrs High Temperature Operating Life-Test 3 x 77pcs (automotive products only)
- Early Life Failure Rate 800pcs (automotive products only)
- ESD and latch-up test 30 pcs
- Electrical Distribution and Cpk analysis.

The successful Technology Family Qualification is the basis for all further individual product qualifications.

Products are released based upon structural technology similarity for the Technology Family Qualification.
For those products the following qualifications are performed:

- ESD and latch-up test
- Electrical Distribution and Cpk analysis.

RISCASSESSMENT: (Risiko-Bewertung)	Impact to form?		Impact to fit (reliability)?		Impact to function?	
	☒ yes	☐ no	☐ yes	☒ no	☐ yes	☒ no

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The following migration milestones and documentations are planned:

Milestone1: Full implementation of 8" line at X-FAB Dresden according X-FAB specification GP4	April 01, 09 ✓
Deliverable: Status information	
Milestone 2: 8" C7 Process Freeze	Nov. 01, 09 ✓
Deliverable: Status Information	
Deliverable option: X-FAB Process Freeze Report	
Milestone 3: Component Level/Intrinsic Qualification of migrated C7 (level 1) according X-FAB Standard GP4.1 & X-FAB spec. "Reliability of Process (FG-000049-HD-01)"	May. 2010 (C7D)✓
Deliverable: Status information to customer on Conditional 8" Line Release	
Deliverable Option: Level 1/Intrinsic Qualification report X-FAB on request	
Milestone 4: 8" Packaged Samples to customer	
Deliverable: 1st samples from 8" qualification lots to customer	Jul. 2012 ✓
Milestone 5: Technology Family Qualification (Product Level Qualification) and Full 8" Line Release	
Deliverable: ZMDI Technology Family Qualification Report to customers	Dec. 2011✓
Milestone 6: Updated PPAP to customer	Aug. 2012✓
Milestone 7: Release for production of products from new 8" line by ZMDI	Aug. 2012
Milestone 8: First Volume deliveries	Nov. 2012
Dice	
Devices	

EXPECTED LAST ORDER DATE FOR UNCHANGED DEVICES:
(erwarteter letzter Bestelltermin ungeänderter Produkte)

C7 6" last time buy Nov. 2012

EXPECTED FIRST SHIPMENT DATE OF CHANGED DEVICES:
(erwarteter erster Liefertermin geänderter Produkte)

see Milestone 8

MEANS OF DISTINGUISHING CHANGED DEVICES FROM UNCHANGED DEVICES:
(Unterscheidungsmerkmal)

By lot number

PART NUMBER OF THE AFFECTED DEVICE(S):
(Kundenteilenummer)
part number change

effected part number/ customer number	part number change				new part number
ZSC31010C* /	yes	☐	no	☒	

IN CASE OF ANY QUESTION PLEASE CONTACT:
(Ansprechperson) Cornelia Imhof, Customer Service
Phone: +49 351 8822 372
e-mail: cornelia.imhof@zmdi.com

ISSUED BY:
(Herausgeber)

NAME; DEPARTMENT; SIGNUM
(Name, Dienststelle, Unterschrift)

Mr. Krüger, Product Engineering
Phone: +49 351 8822 359
volker.krueger@zmdi.com

DATE: 18.10.2012
(Datum): 18th October 2012

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Customer feedback form for PCN No.: 220/2012

Dear Customer,

Your feedback is appreciated and will help us to realize this process change without any issues.

Please complete this form and send it back until 17th November 2012 (response time according to JESD 46C is 30 days). Should we not receive a response concerning this PCN within 30 days, we are assuming you are in agreement with this change and schedule.

(Sehr geehrter Kunde,
Ihre Rückantwort ist sehr wichtig und wird uns helfen, die Prozessänderung problemlos zu realisieren. Bitte füllen Sie das Formular aus und senden es uns bis zum 17.11.2012 zurück (Antwortzeit entsprechend JESD 46C – 30 Tage).
Wenn wir zum Termin keine Rückantwort erhalten, werten wir dies als Einverständnis zur PCN und führen die Änderung durch.

Thank you for your help.
(Danke für Ihre Hilfe.)

Please check and comment.
(Bitte ankreuzen)

PCN DECISION.

☐ This product/process change is accepted.
(Diese Produkt-/Prozessänderung wird akzeptiert.)

☐ This product/process change is accepted with remarks.
(Diese Produkt-/Prozessänderung wird mit folgenden Anmerkungen akzeptiert.)

☐ We need samples
(Wir benötigen Muster)

Type
(Typ)

Quantity
(Menge)

Special requirements
(spezielle Anforderungen)

Purpose of sample order
(Zweck der Musterbestellung)

Please fax or send this form back to
(Bitte senden Sie Ihre Rückantwort an)

		from: (von):
Name:	Ms Cornelia Imhof	Name:
Department:	Customer Service	Department:
Address:	Zentrum Mikroelektronik Dresden AG Grenzstraße 28 01109 Dresden	Address:
Fax:	+49 0351 8822 192	Fax:

Date (Datum)	Customer Name (Name des Kunden)	Signature of Customer (Unterschrift des Kunden)	Tel.-No. Tel.-Nr.

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