PCN Number: 2		20160	20160331001 <mark>A</mark>			PCN Date: 4/18/2016											
Title: Qualification of 0 process technology			CFAB as an additional wafer fab site option for				or select devices in LBC5										
Customer Contact:		<u>PC</u>	<u>N Manager</u>		Dept	:	Qu	ality Serv	ices								
Proposed 1 st Ship Date:		: 7/8	/2016	Estimated Availabilit				oate provi ample ree									
Ch	ange Ty	/pe:															
	Assem	bly Site		Assembly P	rocess		A	ssembl	y Materia	ls							
	Desigr	1		Electrical S	pecification		Μ	Mechanical Specification									
	Test S	ite		Packing/Sh	ipping/Labeli	ng	Te	Test Process									
		Bump Site		Wafer Bum			W	Wafer Bump Process									
\boxtimes	Wafer	Fab Site		Wafer Fab I			W	afer Fa	ab Proces	5							
				Part numbe													
				PCN	Details												
De	scriptio	on of Change:															
				<mark>o correct/ret</mark>													
ina	dverte	ntly listed in	page 2	<mark>, but not in th</mark>	e Product A	ffected So	ectio	<mark>n in pa</mark>	ige 3.								
_			-														
							_				Please refer to the Product Affected Section on the following:						
	Group 1: Devices that may appear in notification letter, page 2. These are not affected by																
					this change.						/						
thi	<mark>s chang</mark>	<mark>je.</mark>		-						_	V						
thi Gro	s chang oup 2: 1	<mark>je.</mark> This is correc	<mark>t. Origi</mark>	nal devices li	<mark>sted in Prod</mark>			ection,		_	V						
thi Gro	s chang oup 2: 1	<mark>je.</mark> This is correc	<mark>t. Origi</mark>	-	<mark>sted in Prod</mark>			ection,		_	V						
thi Gro no	s chang oup 2: 1 tificatio	<mark>je.</mark> This is correc on. These are	t. Origi still af	nal devices lis ffected by this	sted in Prod s change.	uct Affect	ed S		<mark>, 4/8/16</mark>	i	V						
<mark>thi</mark> Gro no Thi	s chang oup 2: 1 tificatio s change	je. This is correc on. These are e notification is	t. Origi still a f	nal devices lig ffected by this ounce the qual	sted in Prod s change. ification of C	uct Affect FAB as an	ed So additi	onal wa	<mark>, 4/8/16</mark>	i	V						
<mark>thi</mark> Gro no Thi	s chang oup 2: 1 tificatio s change	je. This is correc on. These are e notification is	t. Origi still a f	nal devices lis ffected by this	sted in Prod s change. ification of C	uct Affect FAB as an	ed So additi	onal wa	<mark>, 4/8/16</mark>	i	Y						
<mark>thi</mark> Gro no Thi	s chang oup 2: 1 tificatio s change	Je. This is correc on. These are e notification is the LBC5 devic	t. Origi still af s to ann ses listed	nal devices lig ffected by this ounce the qual	sted in Prod s change. ification of C	FAB as an ction of this	additi docu	onal wa	<mark>, 4/8/16</mark>	i	Y						
thi Gro no Thi opt	s chang bup 2: 1 tificatio s change ion for t	ge. This is correction. These are e notification is the LBC5 devic Curre	t. Origi e still af s to ann ces listed	nal devices lig ffected by this ounce the qual d in the produc	sted in Prod s change. ification of C t affected sec	FAB as an ction of this	additi docu onal	onal wa iment.	, 4/8/16 afer fab s	i	Y						
thi Gro no Thi opt	s chang bup 2: 1 tificatio s change ion for t Current f	ge. This is correction. These are e notification is the LBC5 devic Curre	t. Origi still af s to ann ses listed	nal devices lig ffected by this ounce the qual d in the product Wafer	sted in Prod s change. ification of C t affected sec Additional	FAB as an ction of this	additi docu onal	onal wa iment.	, 4/8/16 afer fab s Vafer	i	y						
thi Gro no Thi opt	s chang bup 2: 1 tificatio s change ion for t Current F Site	ge. This is correction. These are e notification is the LBC5 device Curre Fab Pro	t. Origi e still an s to ann ces listed ent cess	nal devices lis ffected by this ounce the qual d in the product Wafer Diameter	sted in Prod s change. ification of C t affected sec Additional Fab Site	FAB as an ction of this Additic	additi additi additi additi	onal wa ument.	, 4/8/16 afer fab s Vafer ameter	i	y						
thi Gro no Thi opt	s chang bup 2: 1 tificatio s change ion for t Current f	ge. This is correction. These are e notification is the LBC5 device Curre Fab Pro	t. Origi e still af s to ann ces listed	nal devices lig ffected by this ounce the qual d in the product Wafer	sted in Prod s change. ification of C t affected sec Additional	FAB as an ction of this	additi additi additi additi	onal wa ument.	, 4/8/16 afer fab s Vafer	i	y						
thi Gro no Thi opt	s chang bup 2: 1 tificatio s change ion for t current f Site DP1DM	ge. This is correction. These are e notification is the LBC5 device Curre Fab Pro 5 LB	t. Origi e still af s to ann ces listed ant cess 3C5	nal devices list ffected by this sounce the qual d in the product Wafer Diameter 200 mm	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB	FAB as an ction of this Additic Proce	additi additi additi additi	onal wa iment. Dia 20	, 4/8/16 afer fab s Vafer meter 00 mm	ite	<mark>y</mark>						
thi Gro not Thi opt	s chang bup 2: 1 tificatio s change ion for t Current F Site DP1DM	ge. This is correction. These are e notification is the LBC5 device Curre Fab Prod 5 LB process techno	t. Origi e still af s to ann ces listed ant cess	nal devices lis ffected by this ounce the qual d in the product Wafer Diameter	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB	FAB as an ction of this Additic Proce	additi additi additi additi	onal wa iment. Dia 20	, 4/8/16 afer fab s Vafer meter 00 mm	ite	y						
thi Gro not Thi opt	s chang bup 2: 1 tificatio s change ion for t Current F Site DP1DM	ge. This is correction. These are e notification is the LBC5 device Curre Fab Pro 5 LB	t. Origi e still af s to ann ces listed ant cess	nal devices list ffected by this sounce the qual d in the product Wafer Diameter 200 mm	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB	FAB as an ction of this Addition Proce	additi additi additi additi	onal wa iment. Dia 20	, 4/8/16 afer fab s Vafer meter 00 mm	ite	y						
thi Green not Thi opt Con	s chang bup 2: 1 tificatio s change ion for t Current f Site DP1DM e LBC5 p ason fo	ge. This is correction. These are on. These are e notification is the LBC5 device Curre Fab Product 5 LB process techno process techno of Supply of Supply	t. Origi e still af s to ann ces listed ent cess ac5 logy has	nal devices lis ffected by this nounce the qual d in the product Wafer Diameter 200 mm s been running	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB successfully	FAB as an ction of this Addition of this Addition of this LBC	additi ad	onal wa iment. Dia 20 CFAB s	, 4/8/16 afer fab s Vafer ometer 00 mm since 201	ite 2.	y						
thi Green not Thi opt Con	s chang bup 2: 1 tificatio s change ion for t Current f Site DP1DM e LBC5 p ason fo	ge. This is correction. These are on. These are e notification is the LBC5 device Curre Fab Product 5 LB process techno process techno of Supply of Supply	t. Origi e still af s to ann ces listed ent cess ac5 logy has	nal devices list ffected by this sounce the qual d in the product Wafer Diameter 200 mm	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB successfully	FAB as an ction of this Addition of this Addition of this LBC	additi ad	onal wa iment. Dia 20 CFAB s	, 4/8/16 afer fab s Vafer ometer 00 mm since 201	ite 2.	y						
thi Green not Thi opt Con	s change bup 2: 1 tificatio s change ion for t Current f Site DP1DM e LBC5 p ason fo ntinuity ticipate	ge. This is correction. These are on. These are e notification is the LBC5 device Curre Fab Product 5 LB process techno process techno of Supply of Supply	t. Origi e still af s to ann ces listed ent cess ac5 logy has	nal devices lis ffected by this nounce the qual d in the product Wafer Diameter 200 mm s been running	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB successfully	FAB as an ction of this Addition of this Addition of this LBC	additi ad	onal wa iment. Dia 20 CFAB s	, 4/8/16 afer fab s Vafer ometer 00 mm since 201	ite 2.	y						
thi Gro no Thi opt Co Co An No	s chang bup 2: 1 tificatio s change ion for t Current f Site DP1DM e LBC5 p ason fo ntinuity ticipate	ge. This is correction. These are on. These are e notification is the LBC5 device Curre Fab Provement 5 LB process techno process techno or Change: of Supply ed impact on process	t. Origi e still af s to ann ces listed ent cess ac5 logy has Form, f	nal devices lis ffected by this nounce the qual d in the product Wafer Diameter 200 mm s been running	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB successfully Quality or R	FAB as an ction of this Addition of this Addition of this Addition of this Addition Procession and the component of the compo	additi ad	onal wa iment. Dia 20 CFAB s	, 4/8/16 afer fab s Vafer ometer 00 mm since 201	ite 2.	y						
thi Grc no Thi opt C The Re Con An Non	s chang bup 2: 1 tificatio s change ion for t Current f Site DP1DM e LBC5 p ason fo ntinuity ticipate	ge. This is correction. These are on. These are e notification is the LBC5 device Curre Fab Provement 5 LB process techno process techno or Change: of Supply ed impact on process	t. Origi e still af s to ann ces listed ent cess ac5 logy has Form, f	nal devices lis ffected by this ounce the qual d in the product Wafer Diameter 200 mm s been running Fit, Function,	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB successfully Quality or R	FAB as an ction of this Addition of this Addition of this Addition of this Addition Procession and the component of the compo	additi ad	onal wa iment. Dia 20 CFAB s	, 4/8/16 afer fab s Vafer ometer 00 mm since 201	ite 2.							
thi Grc no Thi opt C The Re Con An Non	s chang bup 2: 1 tificatio s change ion for t Current F Site DP1DM ason fo htinuity ticipate ne anges t urrent	ge. This is correction. These are on. These are e notification is the LBC5 device Curre Fab Prod 5 LB process techno or or Change: of Supply ed impact on conduct ide	t. Origi s still af s to ann ces listed ant cess 3C5 logy has Form, f	nal devices lis ffected by this iounce the qual d in the product Wafer Diameter 200 mm s been running Fit, Function, tion resulting	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB successfully Quality or R from this P	FAB as an ction of this Additic Proce	additi ad	onal wa iment. Dia 20 CFAB s	, 4/8/16 afer fab s Vafer meter 00 mm since 201 negative	ite 2.							
thi Grc no Thi opt C The Re Con An Non	s chang bup 2: 1 tificatio s change ion for t Current F Site DP1DM ason fo htinuity ticipate ne anges t urrent	ge. This is correction. These are on. These are e notification is the LBC5 device Curre Fab Provement 5 LB process techno process techno or Change: of Supply ed impact on process	t. Origi s still af s to ann ces listed ant cess 3C5 logy has Form, f	nal devices lis ffected by this ounce the qual d in the product Wafer Diameter 200 mm s been running Fit, Function,	sted in Prod s change. ification of C t affected sec Additional Fab Site CFAB successfully Quality or R from this P Chip Site	FAB as an ction of this Addition of this Addition of this Addition of this Addition Procession and the component of the compo	additi ad	onal wa iment. Dia 20 CFAB s	, 4/8/16 afer fab s Vafer ometer 00 mm since 201	ite 2.							

New			
Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
CFAB	CU3	CHN	Chengdu

Sample product shipping label (not actual product label)



Product Affected:

TAS5721DCA	TAS5731MPHP	TAS5731PHP	
TAS5721DCAR	TAS5731MPHPR	TAS5731PHPR	
Group 2: This is correct	. Original devices listed in	Product Affected Sectio	n, 4/8/16 notification. These
are still affected by this	change.		
CXD9981TNDDV	TAS5342LAADDVR	TAS5614ADKD	TAS5708PHPR
CXD9981TNDDVR	TAS5352ADDV	TAS5614ADKDR	TAS5710PHP
CXD9981UTNDDV	TAS5352ADDVR	TAS5614APHD	TAS5710PHPR
CXD9981UTNDDVR	TAS5613ADKD	TAS5614APHDR	TPA3251D2DDV
TAS5342ADDV	TAS5613ADKDR	TAS5708LPHP	TPA3251D2DDVR
TAS5342ADDVR	TAS5613APHD	TAS5708LPHPR	TPS65149RSHR
TAS5342LAADDV	TAS5613APHDR	TAS5708PHP	TPS65155RKPR

Qualification Report

Qualification of LBC5 Process Technology at CFAB Approved 03/02/2012

Die Attributes

Attributes	Process QBS : TAS5613APHD Approved: 3/2/2012	Process QBS: DRV8813A0PWP Approved: 3/2/2012	Process QBS: SN8C0183PWP Approved: 3/2/2012
Wafer Fab Site	CFAB	CFAB	CFAB
Wafer Fab Process	LBC5	LBC5	LBC5
Wafer Diameter	200mm	200mm	200mm

- QBS: Qual By Similarity

- Qual Device TAS5613APHD and SN8C0183PWP are qualified at LEVEL3-260C

- Qual Device DRV8813A0PWP is qualified at LEVEL1-260C

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

Туре	Test Name / Condition	Duration	Qual Device: TAS5613APHD	Qual Device: DRV8813A0PWP	Qual Device: SN8C0183PWP
AC	Autoclave 121C	96 Hours	3/77/0	3/77/0	-
ED	Electrical Characterization	Per Datasheet Parameters	3/Pass	3/Pass	3/3/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/77/0	-	-
HBM	ESD - HBM	1500 V	3/21/0	1/3/0	-
CDM	ESD - CDM	250 V	3/15/0	1/3/0	-
HTOL	Life Test, 155C	240 Hours	3/77/0		3/77/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/77/0	-	_
LU	Latch-up	(per JESD78)	3/6/0	1/6/0	-
тс	Temperature Cycle, -65/150C	500 Cycles	3/77/0	3/77/0	-

- 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 regional contacts shown below, or you can contact your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com