

12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20230829002.1 Qualification of TSMC-WFT as an additional Wafer Fab Site option for select devices Change Notification / Sample Request

Date: August 29, 2023

To: TOKYO ELECTRON DEVICE (DSTR) PCN

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 and approval of this 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 change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

Sincerely,

Change Management Team SC Business Services

20230829002.1 Change Notification / Sample Request Attachments

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 CC1200RHBR

CUSTOMER PART NUMBER

null

PCN# 20230829002.1

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

20230829002.1 **PCN Number:** PCN Date: August 29, 2023 Qualification of TSMC-WFT (Fab 11) as an additional Wafer Fab Site option for select Title: devices **Customer Contact:** Change Management team Dept: Quality Services Sample requests **Proposed 1st Ship Date:** Nov 29, 2023 Sep 29, 2023* accepted until: *Sample requests received after September 29, 2023 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 qualification of TSMC-WFT (Fab 11) fabrication facility as an additional Wafer Fab source for the selected devices listed in the "Product Affected" section.

С	urrent Fab Site)	Additional Fab Site			
Current Fab Process Site		Wafer Diameter	New Fab Site	Process	Wafer Diameter	
TSMC-F10 (Fab 10)	0.18UM- TSMC	200mm	TSMC-WFT (Fab 11)	0.18UM- TSMC	200mm	

Qual details are provided in the Qual Data Section.

Reason for Change:

Continuity of Supply

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Changes to product identification resulting from this PCN:

Current Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City	
TSMC-F10 (Fab 10)	TSS	CHN	Shanghai	

Additional Fab Site Information:

New Chip Chip Site Origin Site Code (20L)		Chip Site Country Code (21L)	Chip Site City	
TSMC-WFT	T13	USA	Camas	
(Fab 11)				

Sample product shipping label (not actual product label)





(1P) \$N74L\$07N\$R (Q) 2000 (D) 0336 (31T)LOT: 3959047MLA (4W) TKY(1T) 7523483\$I2 (P) (2P) REV: (20L) CSO: SHE (21L) CCO: USA (22L) ASO: MLA (23L) AGO: MYS

Product Affected:	
CC1200RHBR	CC1200RHBT

Qualification Results

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

Туре	#	Test Name	Condition	Duration	Qual Device: CC1200RHBR	QBS Reference: CC1020RSSR	QBS Reference: <u>CC2541S</u>
HAST	A2	Temperature Humidity Bias	85C/85%RH	1000 Hours	-	3/78/0	3/234/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	3/231/0	-
UHAST	А3	Unbiased HAST	110C/85%RH	264 Hours	-	4/308/0	3/234/0
TC	A4	Temperature Cycle	-50C/150C	500 Cycles	-	-	3/234/0
TC	A4	Temperature Cycle	-55C/125C	1000 Cycles	-	1/77/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	3/231/0	3/234/0
HTSL	A6	High Temperature Storage Life	50C	300 Hours	-	-	3/234/0
HTOL	B1	Life Test	125C	408 Hours	-	-	3/231/0
ELFR	B2	Early Life Failure Rate	125C	24 Hours	-	-	3/2399/0
SD	C3	PB-Free Solderability	8 Hr/steam age	-	-	-	1/15/0
ESD	E2	ESD CDM	-	500 Volts	1/3/0	-	1/3/0
ESD	E2	ESD HBM	-	2000 Volts	1/3/0	-	1/3/0
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	2/12/0
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	3/90/0

- QBS: Qual By Similarity
- Qual Device CC1200RHBR is qualified at MSL3 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-2206-016

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

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disdaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale (www.ti.com/legal/termsofsale.html) or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.