

PCN# 20180829000.1

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

Date: August 31, 2018
To: PREMIER FARNELL 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.

We request you acknowledge 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 you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

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, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

PCN Team
SC Business Services

20180829000.1
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	CUSTOMER PART NUMBER
TRF7970ARHBR	null
TRF7970ARHBT	null
TRF7960ARHBT	null
TRF7964ARHBR	null

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

PCN Number:	20180829000.1		PCN Date:	Aug 31, 2018	
Title:	Qualification of TSMC-WFT as an additional Wafer Fab Site option for select devices				
Customer Contact:	PCN Manager		Dept:	Quality Services	
Proposed 1st Ship Date:	Dec. 1, 2018	Estimated Sample Availability:	Date provided at sample request.		
Change Type:					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
		<input type="checkbox"/>	Part number change		

PCN Details

Description of Change:

Texas Instruments is pleased to announce the qualification of its TSMC-WFT fabrication facility as an additional Wafer Fab source for the selected devices listed in "Product Affected" section.

Current Sites			Additional Sites		
Current Fab Site	Process	Wafer Diameter	Additional Fab Site	Process	Wafer Diameter
AMS	MIXEDSIG-0.35	200mm	TSMC-WFT	MIXEDSIG-0.35	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

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
AMS	AUS	AUT	Unterpremstaetten

New Fab Site

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
TSMC-WFT	T13	USA	San Jose

Sample product shipping label (not actual product label)



MADE IN: Malaysia
2DC: 20:

MSL 2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

OPT:
ITEM: 39
LBL: 5A (L)T0:1750



(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483S12
(P)
(2P) REV: (V) 0033317
(20L) CS0: SHE (21L) CCO: USA
(22L) AS0: MLA (23L) ACO: MYS

Product Affected Group:

CRF7964ARHBR	TRF7960AY	TRF7963ARHBR	TRF7964ARHBT
TRF7960ARHBR	TRF7962ARHBR	TRF7963ARHBT	TRF7970ARHBR
TRF7960ARHBT	TRF7962ARHBT	TRF7964ARHBR	TRF7970ARHBT

Qualification Report

TRF79xxxRHB family of devices: Qualification of TSMC F11 as additional wafer fab to AMS

Approve Date 16-Aug-2018

Product Attributes

Attributes	Qual Device: AMS PROPRIETARY DEVICE	Qual Device: TRF7970ARHB
Assembly Site	ASE	MLA
Package Family	LQFP	QFN
Wafer Fab Supplier	TSMC FAB11	TSMC FAB11
Wafer Process	MIXEDSIG-0.35	MIXEDSIG-0.35

- QBS: Qual By Similarity

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: AMS PROPRIETARY DEVICE	Qual Device: TRF7970ARHB
BHAST	Biased HAST, 110C/85%RH	264 Hours	3/231/0	-
ELFR	Early life Failure Rate, 125C	48 Hours	3/3000/0	-
TC	Temperature Cycle, -40/125C	850 Cycles	3/231/0	-
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	3/231/0	-
CDM	ESD - CDM	750 V	-	1/3/0
HBM	ESD - HBM	2000 V	-	1/3/0
HTOL	Life Test, 125C	1000 Hours	3/231/0	1/116/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	1/77/0	-
LU	Latch-up	(per JESD78)	-	1/6/0

- 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