



Product/Process Change Notice - PCN 22_0262 Rev. -

Analog Devices, Inc. One Analog Way, Wilmington, MA 01887, USA

This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

PCN Title:	Notification of Wafer Fab Location Change for 0.6 μ m BiCMOS Process
Publication Date:	22-Nov-2022
Effectivity Date:	24-Feb-2023 <i>(the earliest date that a customer could expect to receive changed material)</i>
Revision Description:	Initial Release

Description Of Change:

ADI is transferring some of the products currently manufactured using the 0.6 μ m BiCMOS process from wafer fab facility located at 275 S. Hillview Dr., Milpitas, CA, USA to Vanguard International Semiconductor, Taiwan. See Appendix 1 for the list of affected part numbers. The affected products will be manufactured using ADI specified manufacturing flows, materials, process controls, and monitors ensuring no degradation of quality and reliability performance. No new products are being released in the Hillview wafer fab and these products will be transferred into the Vanguard wafer fab upon approval of this PCN.

Reason For Change:

As part of ADI's overall manufacturing strategy, ADI has decided to close the Hillview wafer fab facility. Vanguard has been a successful wafer fab foundry partner for ADI, and this business expansion will ensure continuity of supply to our customers well into the future. Vanguard International Semiconductor third party certifications and capacity details are attached for your review. Additional information can be found at <http://www.vis.com.tw>.

Impact of the change (positive or negative) on fit, form, function & reliability:

The qualification of 0.6 μ m BiCMOS process from the Vanguard International Semiconductor has been completed following industry standard qualification requirements. Upon completion of process qualification individual device by device qualification will be initiated. The devices will be characterized over the full operating temperature range. Additionally, devices from Vanguard International Semiconductor will be carefully compared to the ADI fabricated devices to ensure identical performance when installed in customer applications.

Product Identification *(this section will describe how to identify the changed material)*

The devices manufactured in Vanguard International Semiconductor will have the same part number and the same top mark as those manufactured at ADI. However, when necessary we can use our lot number traceability system to identify where and when a device was fabricated.

Summary of Supporting Information:

Qualification has been completed per Industry Standard Test Methods. See attached Qualification Result.

Supporting Documents

Attachment 1: Type: Other

[ADI_PCN_22_0262_Rev_-_Vanguard_Summary.pdf...](#)

Attachment 2: Type: Qualification Results Summary

[ADI_PCN_22_0262_Rev_-_Summary_of_Rel_Table_for_LTM4700_LTM4681_LTM4636...](#)

Note: If applicable, the device material declaration will be updated due to material change.

ADI Contact Information:

For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.

Americas:	Europe:	Japan:	Rest of Asia:
PCN_Americas@analog.com	PCN_Europe@analog.com	PCN_Japan@analog.com	PCN_ROA@analog.com

Appendix A - Affected ADI Models:**Added Parts On This Revision - Product Family / Model Number (13)**

LTM4636 / LTM4636EY#PBF	LTM4636 / LTM4636IY	LTM4636 / LTM4636IY#PBF	LTM4681 / LTM4681EY#3PTPBF	LTM4681 / LTM4681EY#PBF
LTM4681 / LTM4681IY	LTM4681 / LTM4681IY#3PZPBF	LTM4681 / LTM4681IY#PBF	LTM4700 / LTM4700EY#3QFPBF	LTM4700 / LTM4700EY#PBF
LTM4700 / LTM4700IY	LTM4700 / LTM4700IY#PBF	LTM4700 / LTM4700IY#QN47-1		

Appendix B - Revision History:

Rev	Publish Date	Effectivity Date	Rev Description
Rev. -	22-Nov-2022	24-Feb-2023	Initial Release



Vanguard International Semiconductor Corporation

Vanguard International Semiconductor Summary

- Plant Address

123, Park Ave-3rd, Science-Based Industrial Park, Hsinchu, Taiwan 30077, R.O.C.

- Headcount

5,200

- Total Building size in sq. ft. and fab size in sq. meters

880,543.3 sq. feet (Building 1)

- Clean room floor space in sq. meters

12,600 sq. meters (Building 1)

- Fab utilization in percent

Fab 1: 100%

- Land Area in sq. meters

41,925 sq. meters

- Wafer capacity for each facility

Fab 1: 87K wafers per month (ADI's material is scheduled to run in Fab 1)

- A list of certifications (i.e. TS16949, ISO-14001, etc.)

- ISO 9001 Quality Management System (since 1996)
- ISO 14001 Environment Management System (since 1997)
- OHSAS 18001 Health & Safety Management System (since 2003)
- QC 080000 Hazardous Substance Management System (since 2007)
- ISO 27001 Information Security Management System (since 2015)
- IATF 16949 Automotive Quality Management System (since 2018)

**Qualification Summary of 3104 Die at Vanguard for LTM4700, LTM4681,
LTM4636**

LTC3104 at Vanguard Qualification Results			
Test	Specification	Sample Size (lots x samples)	Results
Temperature Cycle (TC)*	JEDEC JESD22-A104	3 x 77	Pass
Unbiased Highly Accelerated Stress Test (UHAST)*	JEDEC JESD22-A118	3 x 77	Pass
High Temperature Storage (HTSL)	JEDEC JESD22-A103	3 x 45	Pass
High Temperature Operating Life (HTOL)	JEDEC JESD22-A108	3 x 77	Pass
Early Life Failure Rate (ELFR)	AEC-Q100-008	3 x 800	Pass
Highly Accelerated Stress Test (HAST)*	JEDEC JESD22-A110	3 x 77	Pass

* Tests were preceded by MSL 1 Preconditioning: 24h 125C bake, 168h 85C/85% unbiased soak, and 3 reflow passes at 260°C peak.