

PROCESS CHANGE NOTICE
 PRODUCT CHANGE NOTICE

MAXIM INTEGRATED HEREBY ISSUES NOTIFICATION OF CHANGE
 THAT MAY AFFECT THE FOLLOWING CATEGORIES:

<input type="checkbox"/> DESIGN	<input type="checkbox"/> WAFER FAB	<input type="checkbox"/> ASSEMBLY	<input checked="" type="checkbox"/> TEST	<input type="checkbox"/> ELEC/MECH SPECS
---------------------------------	------------------------------------	-----------------------------------	--	--

AFFECTED PRODUCT:

Ordering P/N: (See PN listing XLS in PCN ZIP file)
--

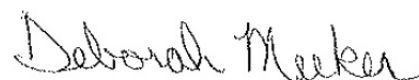
CHANGE FROM: Current single sourced Test facility is Maxim Integrated Hillsboro, Oregon	CHANGE TO: Addition of Sigurd Taiwan for testing automotive and commercial devices. Expanding our engagement with Sigurd due to the strong demand for Maxim Integrated's devices.
---	--

JUSTIFICATION: Additional capacity is required to support demand by using Sigurd's final test equipment configuration that is equivalent to Maxim's internal test configuration. Sigurd has been providing testing for Maxim Integrated products since 2010 and passed qualification on this test platform for other devices in May 2014.

The expansion of Sigurd to test Maxim Integrated automotive/commercial devices provides needed capacity, improves supply chain flexibility, and shortens the supply chain logistics. Please see the attached qualification results.

TRACEABILITY: Maxim Integrated maintains full traceability by device marking, packaging labels and shipment documents.

Maxim Integrated's Change Notification System is designed to keep our customer base apprised of major product, manufacturing, or facility improvements.



Deborah Meeker / PCN Coordinator

For further information, please contact either of the people listed below.

Contact your local Maxim Integrated Company Representative or Deborah Meeker, PCN Coordinator
 408-601-5618 / pcn.coordinator@maximintegrated.com

MAX2173 (WG73) Final Test Transfer to Sigurd on UltraFlex Qual Results

Summary:

- MAX2173 (WG73) final test transfer to Sigurd on UltraFlex completed our qualification process for FT_ROOM and FT_HOT and have gotten approval from TE to begin production testing using test program revision G or later.
- Overall summary of qualification results:
 - KGU – data matched well between Sigurd and test development site. Delta in some contact tests are a result of test improvement.
 - Gage data was approved by TE with no additional improvement action needed.
 - Qual data showed equivalent yield to test development site at both FT_ROOM and FT_HOT. Data from Sigurd QA_ROOM showed two marginal failures resulting in an overall ppm of 291 ppm vs. goal of 0 ppm. Both of these failures were attributed to marginal contact during trim and test program was updated to screen such units out at FT_ROOM starting with test program revision G.

KGU Data:

40 KGU was generated at the test development site and shipped to Sigurd for initial correlation using the FT_ROOM flow. Results of KGU testing in Sigurd matched well to the original data set except for a few LDO contact tests (see Figure 1). Upon review by our TE, the contact test in question was intentionally modified after the initial data collection of the KGU by adding additional delay in order to match the results on the UltraFlex to that of the existing production platform. Hence, this delta was expected and is a non-issue.

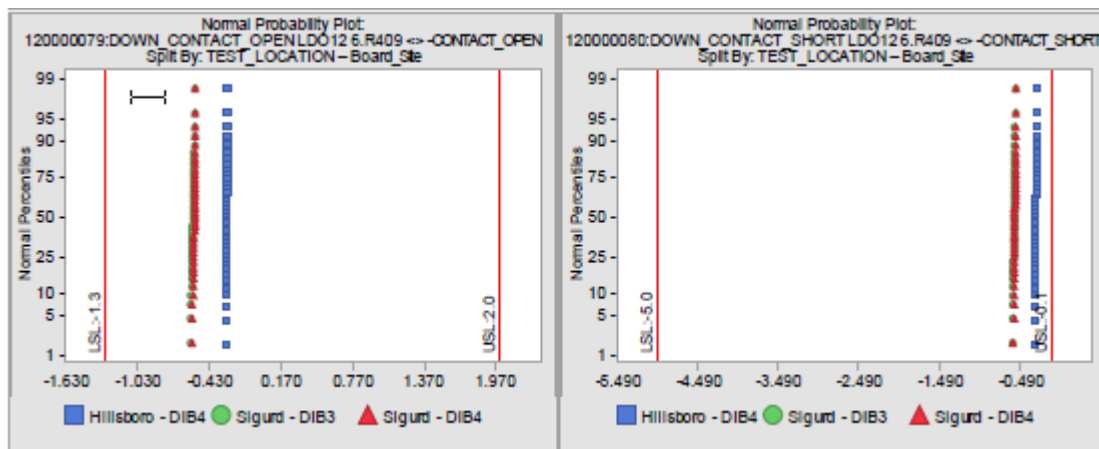


Figure 1: Example of LDO contact test delta between Sigurd and original data. Non-issue as this is caused by intentional test improvement.

Gage Data:

Gage data was collected for two different loadboards (DIB#3 and DIB#4). Our TE reviewed the data by comparing data collected in Sigurd vs. the test development site for all sites and both loadboards passed as all means are line-up or are very close.

Qual Lots Data:

Step	Lot	Yield	Yield Target	QA PPM	QA PPM Target	Comments
FT_ROOM	EX149354AA	91.4%	90%	434	0	1 unit failed for test FM_GC_ADC5_V29
	EX149354AB	91.5%		0		
	EX149354AC	92.1%		438		1 unit failed for test FM_GC_ADC5_V29
	Total	91.7%		291		
FT_HOT	EX149354AA	98.2%	98%	0	0	
	EX149354AB	99.1%		0		
	EX149354AC	98.0%		0		
	Total	98.4%		0		

- A total of three lots, 2500 devices from each lot, were used for Qualification.
- Both QA_ROOM rejects are marginally failed the QA limits. Both failures are caused by poor contact during FT_ROOM trim. Debug has shown that ~20mV delta between trim and post-trim verification at FT_ROOM for test FM_GC_AD5_V29.
- A new test program rev G was released to address these two escapes by changing the post-trim verification limit at FT_ROOM for test FM_GC_AD5_V29 to be the same as its trim limit. Therefore, the change in the limit addresses the two QA failures out at FT_ROOM.