

TEST PRODUCT QUALIFICATION REPORT

TITLE:

Qualification of AMKOR Technology Philippines (AP3), as
an Alternate Test Site for ADM811 (SOT-143)

PCN NUMBER:

PCN #15_0017

REVISION:

A

DATE:

27 February, 2015

PROJECT BACKGROUND

ADM811 is a reliable voltage monitoring device suitable for use in most voltage monitoring applications. ADM811 is designed to monitor six different voltages, each allowing a 5% or 10% degradation of standard PSU voltages before a reset occurs. These voltages have been selected for the effective monitoring of 2.5 V, 3 V, 3.3 V, and 5 V supply voltage levels. Included in this circuit is a debounced manual reset input. Reset can be activated using an electrical switch (or an input from another digital device) or by a degradation of the supply voltage. The manual reset function is very useful, especially if the circuit in which the ADM811 is operating, enters into a state that can only be detected by the user. Allowing the user to reset a system manually can reduce the damage or danger that could otherwise be caused by an out-of-control or locked system.

ADM811 is currently being tested in Carsem Malaysia (CRS). To make sure that we can continue to serve customer demands on whatever situation, a study was done to look at the different discrete packages currently being manufactured in Carsem to check whether we can use another supplier as an alternate source. Amkor Technology Philippines (AP3) was qualified as an additional test site for ADI devices to support production of ADM811 (SOT-143).

SUMMARY

The current test site for the ADM811 (SOT-143) is Carsem Malaysia (CRS) and the alternate test site is Amkor Technology Philippines (AP3).

This report documents the successful completion of test qualification requirements of ADM811 (SOT-143) at AP3

Test qualification was performed according to Analog Devices Specifications (ADI0012 / TST000137 / TST00095)

TEST AND PRODUCT INFORMATION

Device: ADM811
Package: SOT-143
Leads: 4
Tester Platform: CTS5040
Handler: SRM XD248

DESCRIPTION AND TEST RESULTS

Table 1 provides a description of the test qualification conducted and corresponding test results for ADM811 (SOT-143). All the units have undergone electrical tests on both CRS and AP3 using the same test platform. Any device that did not meet the electrical qualification requirements without further analysis and data to prove passing, the qualification would be considered failed.

Table1. Test Product Qual Criteria

Generic	Package	Lot Size	Existing Site	Receiving Site	Mean Shift = $\leq 0.5\sigma$	Sigma Ratio = ≤ 1.3
ADM811	SOT-143	100	CRS	AP3	Passed	Passed

ADM811 was qualified by running a qualification lot with 100 units both in CRS and AP3. Data between sites were analyzed as summarized in Table 1.

A passing result was recorded when the yield from receiving site met or exceeded yield from sending site as summarized in Table 2. Succeeding lots with increased quantity will be closely monitored once the device has started production run at AP3.

Table2. Test Product Qualification Lot Run

GENERIC	Package	Lot Size	Test Site	Results
ADM811	SOT-143	100	AP3	Passed

No valid rejects were encountered during the said evaluation in both CRS and on AP3.

REJECT VERIFICATION

5 valid rejects tested from CRS were tested at AP3 and ended with the same result.

Table3. Setup verification using Reject units

Unit #	CRS	AP3
1	Failed	Failed
2	Failed	Failed
3	Failed	Failed
4	Failed	Failed
5	Failed	Failed

CONCLUSION:

ADM811 (SOT-143) test data on both sites are correlated. Data are already approved by Engineering and Technical Review Board, it is acceptable. AP3 is now ready to test ADM811 (SOT143) device.

APPROVALS:

Technical Review Board

SUPPORTING DOCUMENTS:

Technical Review Board: TRB#9681

ADDITIONAL INFORMATION:

Homepage: <http://www.analog.com/en/index.html>

Datasheet: <http://www.analog.com/en/power-management/supervisors/ADM811/products/product.html>

Customer Service: http://www.analog.com/en/content/technical_support_page/fca.html