Qualification Report

Company Name : WIZnet Co., Ltd.
Product Name : SW5300
Package Type : 100 LQFP
Reported Date : Sep 25th ,2008

QRT Semiconductor Inc

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Reviewed by : M . G . Kim

Approved by : Y . W . Hwang

1. Qualification Test Summary

DEVICE NO : SW5300	PRODUCT TYPE :	PACKAGE TYPE : 100 LQFP	SAMPLE LOTS : 1 LOTS	REPORT NO : QRTC-D-0808-0169
FAB SITE :	ASS'Y SITE :	PURPOSE : SW5300 QUALIFICATION		DATE : Sep 25th , 2008

TEST RESULTS

TEST MODE	TEST CONDITION	Test Time	S/S	NO. OF FAIL	FAIL RATE(%)	REMARKS
LOW TEMPERATURE OPERATING LIFE	-40 ℃,V0 = 3.3 V V4 = 1.8 V, VIH = 3.3 V	504 h	77	0	0.00 %	

※ The test results are based on customer's data

2. Qualification Test Item & Results

2.1 LTOL (Low Temperature Operating Life)

This test is intended to look for failures caused by hot carriers, and is typically applied on memory devices or devices with submicron device dimensions.

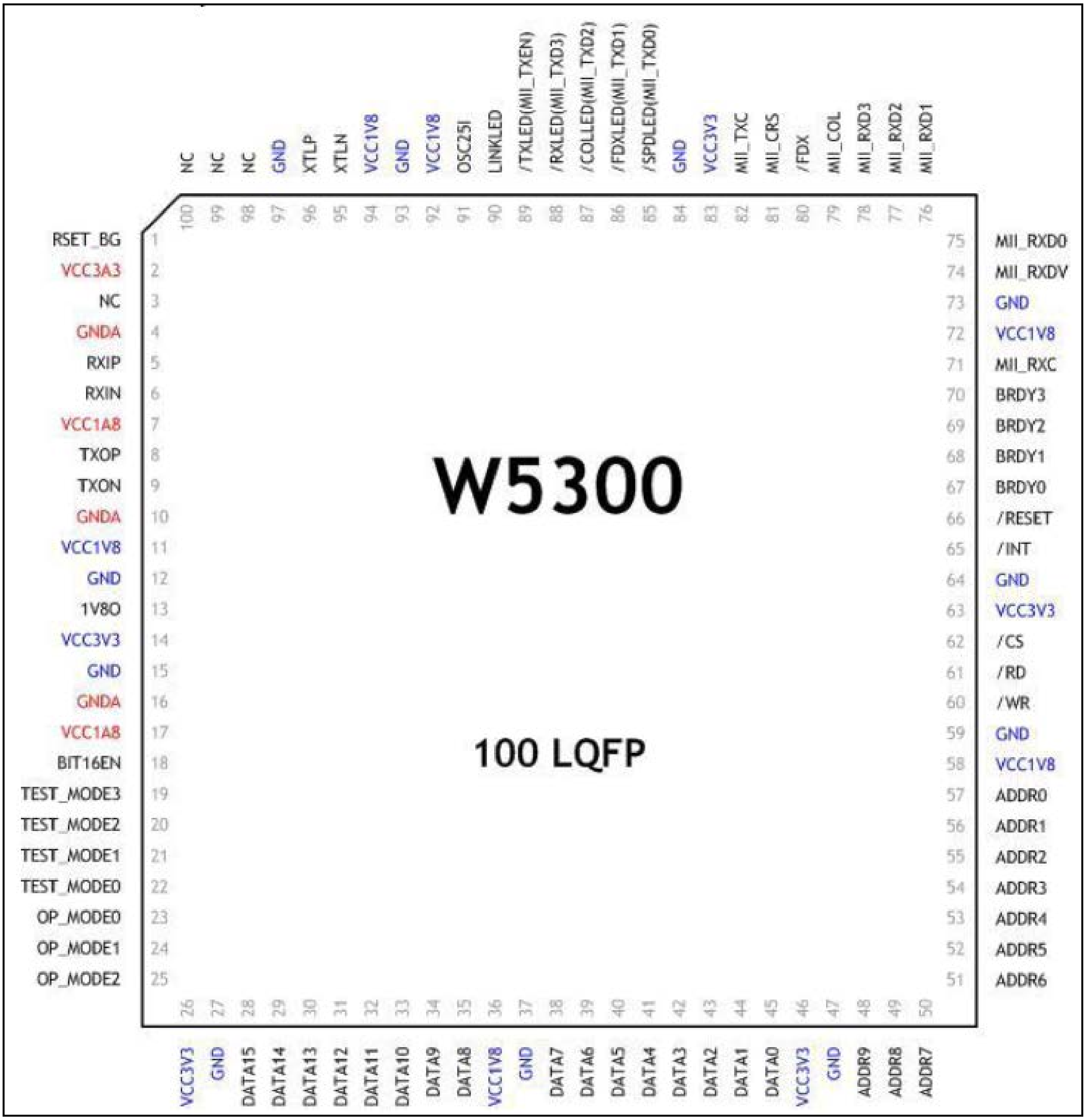
A total of 77 devices are completed 504 hours with no failure.

Test Condition	Reference Document	Duration	SS	Results
- 40 ℃, V0= 3.3 V V4 = 1.8 V,VIH = 3.3 V	JESD22-A108-C	504 h	77	PASS

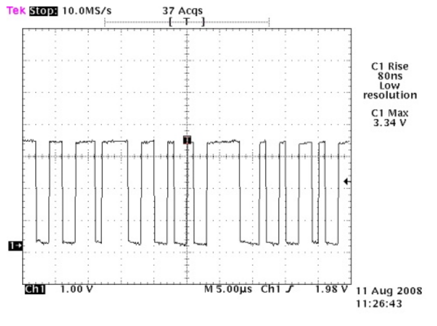
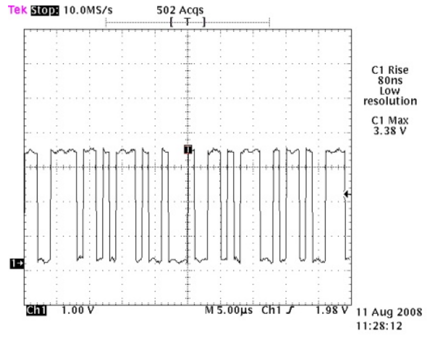
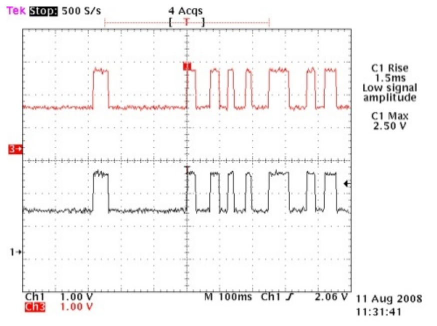
3. LTOL Test Conditions

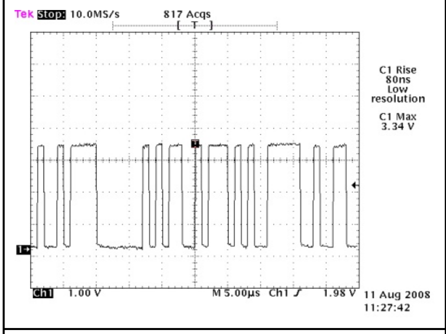
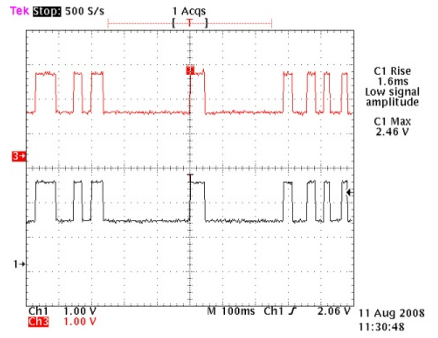
LTOL Board Density : 80 ea / Board	**Load S/S : 77 ea / Board**
VCC3A3 (V0) :3.3 V **VCC1A8 (V4) : 1.8 V**	**VIH : 3.3 V** **VIL : 0 V**
Vector Type : **ATPG_SEQ.ftl + ATPG_short.ftl + scan_chain.ftl** **Test Vector 3개를 SUM 하여 진행 함.**	**Cycle Time : 1 000 ns**
Timing Format Condition	
◆. Signal Rate : 1 000 ns **◆. Frequency : 1 MHz** **◆. ADDR9" { force { format RZ; start 150 , stop 500ns; } }** **◆. ADDR8" { force { format RO; start 150; stop 500; } }**	
Remark :	

3.1 W5300 Pin MAP



3.2 LTOL timing sample chart

	BRDY0 Pin#67
	BRDY2 Pin#69
	TXON Pin#9 TXOP Pin#8

	BRDY1 Pin#68
	RXIN Pin#6 RXIP Pin#5

Quality
Reliability
Technology

Semiconductor Inc.

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