

Qualification Report

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





QRTC-D-0808-169

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 : W5300 QUALIFICATION			DATE : Sep 25 th , 2008	
TEST RESULTS						
TEST MODE	TEST CONDITION	Test Time	S/S	NO. OF FAIL	FAIL RATE(%)	REMARKS
LPW TEMPERATURE OPERATING LIFE	-40 °C, 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.



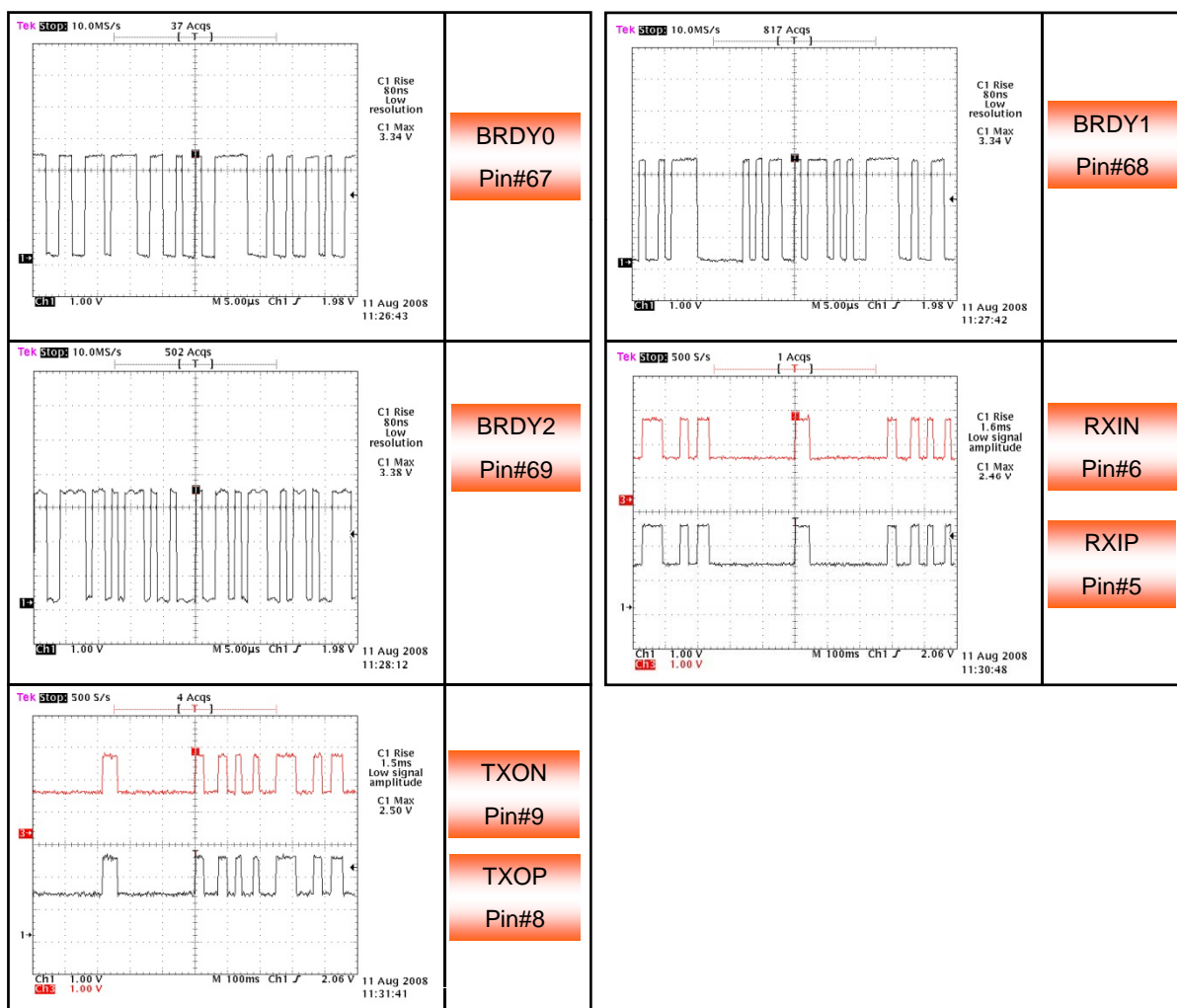
Test Condition	Reference Document	Duration	SS	Results
- 40 °C, V0= 3.3 V V4 = 1.8 V, VIH = 3.3 V	JESD22-A108-C	504 h	77	PASS

3. HTOL Test Conditions

HTOL 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 000ns
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 :	

Pin		Signal	Signal
1	100	RSET_BG	MII_RXD0
2	99	VCC3A3	MII_RXDV
3	98	NC	GND
4	97	GND	VCC1V8
5	96	RXIP	MII_RXC
6	95	RXIN	BRDY3
7	94	VCC1A8	BRDY2
8	93	TXOP	BRDY1
9	92	TXON	BRDY0
10	91	GND	/RESET
11	90	VCC1V8	/INT
12	89	GND	GND
13	88	1V80	VCC3V3
14	87	VCC3V3	/CS
15	86	GND	/RD
16	85	GND	/WR
17	84	VCC1A8	GND
18	83	BIT16EN	VCC1V8
19	82	TEST_MODE3	ADDR0
20	81	TEST_MODE2	ADDR1
21	80	TEST_MODE1	ADDR2
22	79	TEST_MODE0	ADDR3
23	78	OP_MODE0	ADDR4
24	77	OP_MODE1	ADDR5
25	76	OP_MODE2	ADDR6
26	75	VCC3V3	
27	74	GND	
28	73	DATA15	
29	72	DATA14	
30	71	DATA13	
31	70	DATA12	
32	69	DATA11	
33	68	DATA10	
34	67	DATA9	
35	66	DATA8	
36	65	VCC1V8	
37	64	GND	
38	63	DATA7	
39	62	DATA6	
40	61	DATA5	
41	60	DATA4	
42	59	DATA3	
43	58	DATA2	
44	57	DATA1	
45	56	DATA0	
46	55	VCC3V3	
47	54	GND	
48	53	ADDR9	
49	52	ADDR8	
50	51	ADDR7	

3.2 HTOL timing sample chart





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Quality Reliability Technology

Semiconductor Inc.



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