Integrated Device Technology, Inc.
6024 Silver Creek Valley Road, San Jose, CA - 95138

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: W-1002-01(R5) DATE: June 22, 2011

Affected Products: Refer to the attached list of products transferring from IDT Fab 4 to TSMC

Date Effective: Refer to affected part list

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ■ Product Mark Refer to details on attachment 1
- ☐ Back Mark
- ☐ Date Code
- ☐ Other

Contact: Mary Vesey
Title: Director, Product Quality Assurance
Phone #: (408) 284-4565
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Attachment: ■ Yes ☐ No

Additional details are shown on attachment 1 and in the part list

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
- ☐ Wafer Fabrication Process
- ☐ Assembly Process
- ☐ Equipment
- ☐ Material
- ☐ Testing
- ■ Manufacturing Site
- ☐ Data Sheet
- ☐ Other

This is an update to the previously published PCN W-1002-01 (R4) to show completed qualification and product status.

IDT has completed the qualification on a majority of the products that were manufactured in IDT Hillsboro, Oregon (Fab 4) and transferring to Taiwan Semiconductor Manufacturing Corporation (TSMC) Fab 3 or Fab 8.

The new TSMC site is shown for each part on the affected part list in the technology description of the transferring part.

≥ 0.50µ to TSMC Fab 3, Hsinchu, Taiwan
< 0.35µ to TSMC Fab 8, Hsinchu, Taiwan

TSMC has closely matched the IDT Fab 4 process for each technology transferred. Each product transferred will use the same design rules of the existing product.

A qualification report for each technology is included in this notice. A full list of affected IDT part numbers and product status is shown on the attached part list.

There is no expected change to the data sheet, package or backend manufacturing process.

RELIABILITY/QUALIFICATION SUMMARY:

Wafer and Component Level Qualification and Characterization tests will verify that there is no change to the performance or reliability of the product.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 90 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: ____________________

☐ ***Approval for shipments prior to effective date.***

Name/Date: ____________________

E-Mail Address: ____________________

Title: ____________________

Phone# /Fax# : ____________________

CUSTOMER COMMENTS: ____________________

Integrated Device Technology, Inc.
6024 Silver Creek Valley Road, San Jose, CA - 95138

PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT I - PCN # : W-1002- 01 (R5)

PCN Type: Wafer Fab Manufacturing Site Change - IDT Fab 4 to TSMC Fab 3 and Fab 8

Data Sheet Change: No Change to Datasheet Parameters.

Details Of Change: IDT has completed the qualification on a majority of the products that were manufactured in IDT Hillsboro, Oregon (Fab 4) and transferring to Taiwan Semiconductor Manufacturing Corporation (TSMC) Fab 3 or Fab 8.

The new TSMC site is shown for each part on the affected part list in the technology description of the transferring part.

≥ 0.35μ to TSMC Fab 3, Hsinchu, Taiwan (no SRAM products affected)
< 0.35μ to TSMC Fab 8, Hsinchu, Taiwan

TSMC has closely matched the IDT Fab 4 process for each technology transferred. Each product transferred will use the same design rules of the existing product.

There is no expected change to the data sheet, package or backend manufacturing process.

TSMC Fab 3 and Fab 8 are both qualified Wafer Foundry sites for IDT products. TSMC has qualified technologies of similar geometry sizes.

Production at IDT Hillsboro, Oregon Fab 4 is expected to continue through August 2011

The Technology transfer was completed on lead technology vehicles for each technology. Wafer and component level qualification has been completed on 3 production lots of each technology vehicle. Extended product qualification tests have been completed and are shown on the qualification report. Additional qualification and characterization reports are available on request.

The affected part list detail is attached. Samples are available now.

The means to distinguish the change will be in the orderable part number and on the top mark. The current die revision have a "5" added to the die step in the existing part number.

Please contact your IDT sales representative to request samples or additional information.

TSMC Transfer Qualification Test Result Summary

Technology Information: 0.5 µm, 5 V **Fab Location: TSMC Fab 3**

Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Lead Vehicle: 72265Y5 256K SRAM
	Sample Size / Rejects/ each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	79 / 0 79 / 0 79 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0 45 / 0 45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0 77 / 0 77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Lead Vehicle: 72265Y5 256K SRAM
	Sample Size / Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0 5 / 0 5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0 45 / 0 45 / 0
Autoclave EIA/JESD22-A102C, 168hrs @ 2 ATM, Saturated Steam @ 121°C	45 / 0 45 / 0 45 / 0

Note: For HAST, Autoclave and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A11

Extended Products / Bridge Qualification Test Summary

Technology Information: 0.5 μm, 5 V, Fab Location: TSMC Fab 3

Test / Conditions	**70121R5 18K SRAM**	**70914Y5 36K SRAM**	**71256L5 256K SRAM**	**7132S5 16K SRAM**	**7133W5 32K SRAM**	**7134W5 32K SRAM**	**7164L5 64K SRAM**
	Sample Size / Rejects	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
.Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10	10	10

Test / Conditions	**7202Q5 4K SRAM**	**7204S5 36K SRAM**	**7205W5 72K SRAM**	**7206X5 144K SRAM**	**7207Y5 288K SRAM**	**7208Y5 576K SRAM**	**72225U5 18K SRAM**
	Sample Size / Rejects	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10	10	10

Test / Conditions	**72241W5 36K SRAM**	**72245V5 72K SRAM**	**72251Y5 72K SRAM**	**723614Y5 2K SRAM**	**723651Y5 72K SRAM**
	Sample Size / Rejects	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10

TSMC Transfer Qualification Test Result Summary

Technology Information: 0.5 µm, 3.3 V **Fab Location: TSMC Fab 3**

Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Lead Vehicle: 72V265Y5 256K SRAM
	Sample Size / Rejects/ each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	79 / 0 79 / 0 78 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0 45 / 0 45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0 77 / 0 77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Lead Vehicle: 72V265Y5 256K SRAM
	Sample Size / Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0 5 / 0 5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0 45 / 0 45 / 0
Autoclave EIA/JESD22-A102C, 168hrs @ 2 ATM, Saturated Steam @ 121°C	45 / 0 45 / 0 45 / 0

Note: For HAST, Autoclave and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A113

Extended Products / Bridge Qualification Test Summary
Technology Information: 0.5 µm, 3.3 V, Fab Location: TSMC Fab 3

Test / Conditions	72V02Q5 4K SRAM	72V04S5 36K SRAM	72V05W5 72K SRAM	72V06W5 72K SRAM	72V211W5 4K SRAM	72V225U5 18K SRAM
	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10	10

Extended Products / Bridge Qualification Test Summary
Technology Information: 0.5 µm, 3.3 V, Fab Location: TSMC Fab 3

Test / Conditions	72V241W5 36K SRAM	772V245V5 72K SRAM	72V251Y5 72K SRAM	72V3614Y5 2K SRAM	72V3651Y5 72K SRAM	40V056A Logic
	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10	10

TSMC Transfer Qualification Test Result Summary

Technology Information: 0.35 µm, 5 V **Fab Location: TSMC Fab 3**

Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Lead Vehicle: 71024M5 1M SRAM
	Sample Size / Rejects/ each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	154 / 0 79 / 0 79 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0 45 / 0 45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0 77 / 0 77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Lead Vehicle: 71024M5 1M SRAM
	Sample Size / Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0 5 / 0 5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0 45 / 0 45 / 0
Autoclave EIA/JESD22-A102C, 168hrs @ 2 ATM, Saturated Steam @ 121°C	45 / 0 45 / 0 45 / 0

Note: For HAST, Autoclave and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A113

Extended Products / Bridge Qualification Test Summary
Technology Information: 0.35 µm, 5.0 V, Fab Location: TSMC Fab 3

Test / Conditions	71256TT5 256K SRAM	71124N5 1M SRAM	7025U5 128K SRAM	7027X5 512M SRAM	7028Y5 1M SRAM
	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10

Test / Conditions	72294Z5 1M SRAM	723674Y5 576K SRAM	728985Z5 9K TSIS	729082Z5 80K TSIS
	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10

TSMC Transfer Qualification Test Result Summary

Technology Information: 0.35 µm, 3.3 V **Fab Location: TSMC Fab 3**

Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Lead Vehicle: 70V28Y5 1M SRAM Sample Size / Rejects/ each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	152 / 0 79 / 0 79 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0 45 / 0 45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0 77 / 0 77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Lead Vehicle: 70V28Y5 1M SRAM Sample Size / Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0 5 / 0 5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0 45 / 0 45 / 0
Autoclave EIA/JESD22-A102C, 168hrs @ 2 ATM, Saturated Steam @ 121°C	45 / 0 45 / 0 45 / 0

Note: For HAST, Autoclave and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A113

Extended Products / Bridge Qualification Test Summary
Technology Information: 0.35 μm, 3.3 V, Fab Location: TSMC Fab 3

Test / Conditions	**71V256YY5 256K SRAM**	**71V432V5 1M SRAM**	**71V632Z5 2M SRAM**	**70V25U5 128K SRAM**	**70V27X5 512K SRAM**
	Sample Size / Rejects	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0 (1500V equivalent to IDT Fab 4)	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10

Test / Conditions	**70V3579Z5 1M SRAM**	**72V294Z5 1M SRAM**	**72V3674Y5 576K SRAM**	**72V8985Z5 9K TSIS**	**72V7082Z5 80K TSIS**
	Sample Size / Rejects	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10

Integrated Device Technology, Inc.

TSMC Transfer Qualification Test Result Summary

Technology Information: 0.15 µm, 2.5 V   Fab Location: TSMC Fab 8

Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Lead Vehicle: 70T3519Z5 9M SRAM
	Sample Size / Rejects / each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	145 / 0 146 / 0 76 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0 45 / 0 45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0 77 / 0 77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Lead Vehicle: 70T3519Z5 9M SRAM
	Sample Size / Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0 5 / 0 5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0 45 / 0 45 / 0
Autoclave EIA/JESD22-A102C, 168hrs @ 2 ATM, Saturated Steam @ 121°C	25 / 0 25 / 0 25 / 0

Extended Products / Bridge Qualification Test Summary
Technology Information: 0.14 µm, Fab Location: TSMC Fab 8

Test / Conditions	70TP269Z5 256K SRAM
	Sample Size / Rejects
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Note: For HAST, Autoclave and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A11

TSMC Transfer Qualification Test Result Summary

Technology Information: 0.18 µm, 3.3 V **Fab Location: TSMC Fab 8**

Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Lead Vehicle: 71V656Z5 9M SRAM
	Sample Size / Rejects / each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	158 / 0 154 / 0 154 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0 45 / 0 45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0 77 / 0 77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Lead Vehicle: 71V656Z5 9M SRAM
	Sample Size / Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0 5 / 0 5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0 45 / 0 45 / 0
Autoclave EIA/JESD22-A102C, 168hrs @ 2 ATM, Saturated Steam @ 121°C	45 / 0 45 / 0 45 / 0

Note: For HAST, Autoclave and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A113

Extended Products / Bridge Qualification Test Summary
Technology Information: 0.18 μm, 3.3 V, Fab Location: TSMC Fab 8

Test / Conditions	**71V124H5 1M SRAM**	**71V424Y5 4M SRAM**	**71V556X5 4M SRAM**	**71V576Y5 4M SRAM**
	Sample Size / Rejects	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10

Test / Conditions	**71V676Z5 9M SRAM**	**72V3690X5 1M SRAM**	**72V36B1XB5 4M SRAM**	**70V7519Z5 9M SRAM**
	Sample Size / Rejects	**Sample Size / Rejects**	**Sample Size / Rejects**	**Sample Size / Rejects**
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10

TSMC Transfer Qualification Test Result Summary

Technology Information: 0.18 µm, 3.3 V **Fab Location: TSMC Fab 8**

Technology Qualification Vehicle Test Summary – JESD47 Recommended Tests

Test / Conditions	Lead Vehicle: 70V3599Z5 4M SRAM
	Sample Size / Rejects / each lot
High Temperature Operating Life (Dynamic) JESD22-A108B, +125°C @ 1000 hours or equivalent	154 / 0 79 / 0 79 / 0
Temperature Cycle JESD22-A104B, -55°C -/125°C, 1000 cycles	45 / 0 45 / 0 45 / 0
High Temperature Storage Bake JESD22-A-103-B, 150°C, 1000 hrs	77 / 0 77 / 0 77 / 0
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0
Latch-up JESD78B	6 / 0
Electrical Characterization per Datasheet conditions	10

Technology Qualification Vehicle Test Summary – Supplemental Tests

Test / Conditions	Lead Vehicle: 70V3599Z5 4M SRAM
	Sample Size / Rejects/ each lot
Ball Shear Test JESD22-B116-A, Ball Shear Strength > 5.7g	5 / 0 5 / 0 5 / 0
Highly Accelerated Stress Test (HAST) EIA/JESD22-A110B, 130°C/85%R.H. Vcc max for 100 hours.	45 / 0 45 / 0 45 / 0
Unbiased Highly Accelerated Stress Test (UHAST) JESD22-A118, 100hrs @ 130°C/85%R.H.	45 / 0 45 / 0 45 / 0

Note: For HAST, UHAST and Temperature Cycle, samples have been subjected to pre-conditioning per JESD22-A113

Extended Products / Bridge Qualification Test Summary
Technology Information: 0.18 µm, 3.3 V, Fab Location: TSMC Fab 8

Test / Conditions	70V25T5 128K SRAM	70V659Z5 4M SRAM	72V5155Z5 2M SRAM	72V7166Z5 1M TSIS	72V7327Z5 2M TSIS
	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects	Sample Size / Rejects
ESD: Human Body Model JESD22-A114F, Rating: 2000V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Charged Device Model JEDEC 22-101C, Rating: 500V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
ESD: Machine Model JESD22-A115B, Rating: 200V	3 / 0	3 / 0	3 / 0	3 / 0	3 / 0
Latch-up JESD78B	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Electrical Characterization per Datasheet conditions	10	10	10	10	10