12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20200629000.1A

Qualification of new Fab site (RFAB) using qualified Process Technology, Die Revision, and additional Assembly site/BOM options for select devices

Change Notification / Sample Request

Date: August 07, 2020
To: TOKYO ELECTRON DEVICE (DSTR) PCN

Dear Customer:

Revision A is to announce the addition of new devices that were not included on the original PCN notification.

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If samples or additional data are required, requests must be received within **30 days** of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the PCN Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

PCN Team
SC Business Services

20200629000.1A
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
SN74HC05NSR	null

Technical details of this Product Change follow on the next page(s).

PCN Number:	20200629000.1A	**PCN Date:**	Aug 7, 2020
Title:	Qualification of new Fab site (RFAB) using qualified Process Technology, Die Revision, and additional Assembly site/BOM options for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Sept 27, 2020	**Estimated Sample Availability:**	Date provided at sample request.

Change Type:					
☒	Assembly Site	☒	Assembly Process	☒	Assembly Materials
☒	Design	☐	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☒	Wafer Fab Site	☒	Wafer Fab Materials	☒	Wafer Fab Process
		☐	Part number change		

PCN Details

Description of Change:

Revision A is to announce the addition of new devices that were not included on the original PCN notification. These new devices are highlighted and **bolded** in the device list below. The expected first shipment date for these new devices will be 90 days from this notice for these newly added devices only.

Texas Instruments is pleased to announce the qualification of a new fab & process technology (RFAB, LBC9) and assembly (NFME or HFTAT) site/BOM (MLA) options for selected devices as listed below in the product affected section. Construction differences are noted below:

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
SFAB	HCMOS	150 mm	RFAB	LBC9	300 mm

The die was also changed as a result of the process change.

Construction differences are noted below:

Group 1 RFAB/Process migration & AT/BOM Updates for D Devices:

	ASESH	FMX	MLA Current	MLA New	HFTF
Mount Compound	SID#EY1000063	4147858	4147858	same	SID# A-03
Mold Compound	SID#EN2000511	4211880	4211880	same	SID#R-30
Lead finish	Matte Sn, non RLF	NiPdAu, non RLF	NiPdAu, non RLF	NiPdAu, RLF	Matte Sn, non RLF
Bond wire diameter (Cu)	0.8 mils	0.96 or 0.8mil	0.96 mils	0.8 mils	0.8 mils

Note: D Devices are currently built at one or more of the following AT sites: ASESH, FMX, MLA.

Group 2 RFAB/Process migration & AT/BOM Compare for PW devices:

	MLA Current	ASESH	MLA New	NFME
Mount Compound	4147858	SID#EY1000063	same	SID# A-03
Mold Compound	4211471	SID#EN2000508	same	SID# R-31
Lead finish	NiPdAu, non RLF	Matte Sn, non RLF	NiPdAu, RLF	Matte Sn, non RLF
Bond wire diameter (Cu)	0.96 mils	1.0 mils	0.8 mils	0.8 mils

Note: PW Devices are currently built at either ASESH, MLA or both.

Group 3 BOM Compare (RFAB/Process migration/NS devices BOM Update at MLA):

	MLA Current	MLA New
Bond wire diameter (Cu)	0.96 mils	0.8 mils
Lead finish	NiPdAu, non RLF	NiPdAu, RLF

Upon expiry of this PCN TI will combine lead free solutions in a single ***standard part number***, for the devices in groups 1 & 2. For example; ***CD74HC08PWR***– can ship with both Matte Sn and NiPdAu/Ag.

Example:

- Customer order for 7500 units of CD74HC08PWR with 2500 units SPQ (Standard Pack Quantity per Reel).

- TI can satisfy the above order in one of the following ways.
  - I. 3 Reels of NiPdAu finish.
  - II. 3 Reels of Matte Sn finish
  - III. 2 Reels of Matte Sn and 1 reel of NiPdAu finish.
  - IV. 2 Reels of NiPdAu and 1 reel of Matte Sn finish.

Reason for Change:

SFAB Closure & Continuity of Supply

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

None

Anticipated impact on Material Declaration

☐	No Impact to the Material Declaration	☒	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the TI ECO website.

Changes to product identification resulting from this PCN:

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
SH-BIP-1	SHE	USA	Sherman
RFAB	**RFB**	**USA**	**Richardson**

Die Rev:

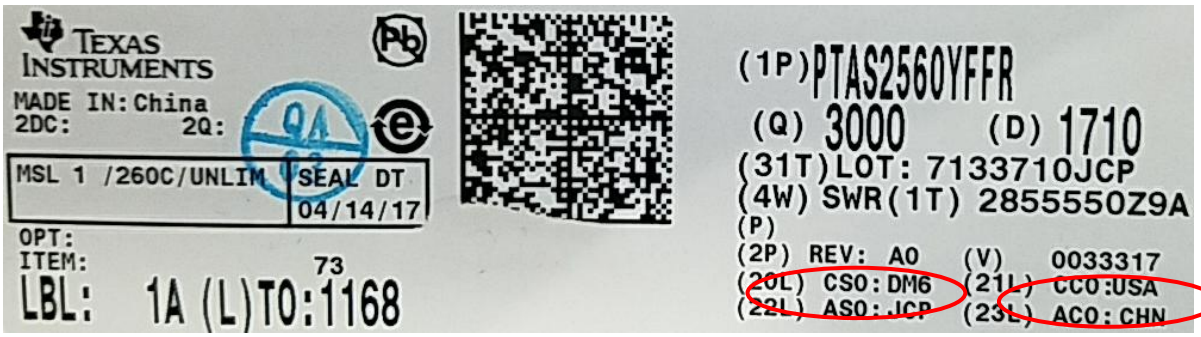
Current	**New**
Die Rev [2P]	**Die Rev [2P]**
E, G, K, or T	**B**

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
MLA	MLA	MYS	Kuala Lumpur
FMX	MEX	MEX	Aguascalientes
ASESH	ASH	CHN	Shanghai

HFTFAT	**HFT**	**CHN**	**Hefei**
NFME	**NFM**	**CHN**	**Economic Development Zone**

Sample product shipping label (not actual product label)



Product Affected:

Group 1 Device list (RFAB/Process migration & AT/BOM Updates for D Devices):

CD74HC00M96	CD74HC30M96	SN74HC04DRG4	SN74HC14DRG4
CD74HC02M96	CD74HC32M96	**SN74HC05DR**	SN74HC20DR
CD74HC04M96	CD74HC4075M96	**SN74HC05DRG4**	SN74HC21DR
CD74HC08M96	CD74HC7266M96	SN74HC08DR	SN74HC266DR
CD74HC10M96	CD74HC74M96	SN74HC08DRG4	SN74HC27DR
CD74HC11M96	CD74HC86M96	SN74HC10DR	SN74HC32DR
CD74HC125M96	SN74HC00DR	SN74HC11DR	SN74HC32DRG4
CD74HC126M96	SN74HC00DRG4	SN74HC125DR	SN74HC7001DR
CD74HC132M96	SN74HC02DR	SN74HC125DRG4	SN74HC7002DR
CD74HC14M96	SN74HC02DRG4	SN74HC126DR	SN74HC74DR
CD74HC20M96	SN74HC03DR	SN74HC132DR	SN74HC74DRG4
CD74HC21M96	SN74HC04DR	SN74HC14DR	SN74HC86DR
CD74HC27M96	SN74HC04DRG3	SN74HC14DRG3	

Group 2 Device list (RFAB/Process migration & AT/BOM Updates for PW devices):

CD74HC08PWR	SN74HC03PWR	SN74HC10PWR	SN74HC14PWRG4
CD74HC14PWR	SN74HC04PWR	SN74HC11PWR	SN74HC20PWR
CD74HC30PWR	SN74HC04PWRG4	SN74HC125PWR	SN74HC21PWR
CD74HC4075PWR	**SN74HC05PWR**	SN74HC125PWRG4	SN74HC32PWR
SN74HC00PWR	**SN74HC05PWRG4**	SN74HC126PWR	SN74HC32PWRG4
SN74HC00PWRG4	SN74HC08PWR	SN74HC132PWR	SN74HC74PWR
SN74HC02PWR	SN74HC08PWRG4	SN74HC14PWR	SN74HC86PWR
SN74HC02PWRG4			

Group 3 Device list (RFAB/Process migration/NS devices BOM Update at MLA):

CD74HC30NSR	**SN74HC05NSR**	SN74HC126NSR	SN74HC266NSR
CD74HC4075NSR	SN74HC08NSR	SN74HC132NSR	SN74HC27NSR
SN74HC00NSR	SN74HC10NSR	SN74HC14NSR	SN74HC32NSR
SN74HC02NSR	SN74HC11NSR	SN74HC20NSR	SN74HC74NSR
SN74HC03NSR	SN74HC125NSR	SN74HC21NSR	SN74HC86NSR
SN74HC04NSR			

Group 1 (D Devices) Qual Memo:

TI Information
Selective Disclosure

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	QBS Product and Package Reference: SN74HCS74QDRQ1	QBS Process Reference: SN74HCS74QPWRQ1
PC	Preconditioning	Level 1-260C	3/828/0	3/828/0
ED	Electrical Distributions	Cpk>1.67 Room, hot, and cold test	3/90/0	3/90/0
CDM	ESD - CDM	2000V	1/3/0	-
CDM	ESD - CDM	1500V	-	1/3/0
HBM	ESD - HBM	7000V	1/3/0	1/3/0
HBM	ESD - HBM	8000V	1/3/0	-
LU	Latch-up	Per AEC Q100-004	1/6/0	1/6/0
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0
HTOL	Life Test, 150C	300 Hours	1/77/0	3/231/0
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	3/135/0	3/135/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type:		ED	CDM	HBM	LU
Test Name / Condition:		Electrical Characterization	ESD - CDM	ESD - HBM	Latch-up
Duration:		Per Datasheet Parameters)	1000V	2000V	(Per AEC Q100-004)
Qual Device:	CD74HC00M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC02M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC04M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC08M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC10M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC11M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC125M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC126M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC132M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC14M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC20M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC21M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC27M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC30M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC32M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC4075M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC7266M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC74M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC86M96	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC00DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC00DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC02DR	Pass	1/3/0	1/3/0	1/6/0

Qual Device:	SN74HC02DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC03DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC04DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC04DRG3	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC04DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC08DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC08DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC10DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC11DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC125DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC125DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC126DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC132DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC14DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC14DRG3	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC14DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC20DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC21DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC266DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC27DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC32DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC32DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC7001DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC7002DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC74DR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC74DRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC86DR	Pass	1/3/0	1/3/0	1/6/0

- QBS: Qual By Similarity
- Qual Devices are qualified at LEVEL1-260CG
- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

Group 2 (PW Devices) Qual Memo:

TI Information
Selective Disclosure

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	QBS Product, Package, and Process Reference:: SN74HCS74QPWRQ1
PC	Preconditioning	Level 1-260C	3/828/0
ED	Electrical Distributions	Cpk>1.67 Room, hot, and cold test	3/90/0
CDM	ESD - CDM	2000V	-
CDM	ESD - CDM	1500V	1/3/0
HBM	ESD - HBM	4000V	-
HBM	ESD - HBM	7000V	1/3/0
HBM	ESD - HBM	8000V	-
LU	Latch-up	Per AEC Q100-004	1/6/0
ELFR	Early Life Failure Rate, 125C	48 Hours	3/2400/0
HTOL	Life Test, 150C	300 Hours	3/231/0
AC	Autoclave 121C	96 Hours	3/231/0
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	3/135/0
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type:		ED	CDM	HBM	LU
Test Name / Condition:		Electrical Characterization	ESD - CDM	ESD - HBM	Latch-up
Duration:		(Per Datasheet Parameters)	1000V	2000V	(Per AEC Q100-004)
Qual Device:	CD74HC08PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC14PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC30PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	CD74HC4075PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC00PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC00PWRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC02PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC02PWRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC03PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC04PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC04PWRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC08PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC08PWRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC10PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC11PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC125PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC125PWRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC126PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC132PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC14PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC14PWRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC20PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC21PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC32PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC32PWRG4	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC74PWR	Pass	1/3/0	1/3/0	1/6/0
Qual Device:	SN74HC86PWR	Pass	1/3/0	1/3/0	1/6/0

- QBS: Qual By Similarity
- Qual Devices are qualified at LEVEL1-260CG
- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

Group 3 (NS Devices) Qual Memo:

TEXAS INSTRUMENTS

TI Information
Selective Disclosure

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: SN74HC74NSR	QBS Product and Process Reference: SN74HCS74QPWRQ1	QBS Package Reference: 1P8T245NSR	QBS Package Reference: PCM1801U	QBS Package Reference: TLC6946DBQR
PC	Preconditioning	Level 1-260C	-	3/828/0	3/693/0	3/693/0	-
PC	Preconditioning	Level 3-260C	-	-	-	-	3/924/0
CDM	ESD - CDM	1500V	1/3/0	1/3/0	-	-	1/3/0
HBM	ESD - HBM	7000V	-	1/3/0	-	-	1/3/0
LU	Latch-up	(Per AEC-Q100-004)	-	1/6/0	-	-	-
LU	Latch-up	(Per JESD78)	-	-	-	-	1/6/0
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-	-	-
HTOL	Life Test, 125C	1000 Hours	-	-	-	-	3/231/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0	-	-	-
HTOL	Life Test, 150C	408 Hours	-	-	-	-	-
UHAST	Unbiased HAST 130C/85%RH	96 Hours	-	-	-	-	3/231/0
AC	Autoclave 121C	96 Hours	-	3/231/0	3/231/0	3/231/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	-	-	3/231/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	3/135/0	-	-	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	3/231/0	3/231/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0	3/231/0	3/231/0

Qualification Results
Data Displayed as: Number of lots / Total sample size / Total failed

Type:		ED	CDM	HBM	LU
Test Name / Condition:		Electrical Characterization	ESD - CDM	ESD - HBM	Latch-up
Duration:		(Per Datasheet Parameters)	1000V	2000V	(Per AEC Q100-004)
Qual Device:	CD74HC30NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	CD74HC4075NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC00NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC02NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC03NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC04NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC08NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC10NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC11NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC125NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC126NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC132NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC14NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC20NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC21NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC266NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC27NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC32NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC74NSR	Pass	1/3/0	1/3/0*	1/6/0*
Qual Device:	SN74HC86NSR	Pass	1/3/0	1/3/0*	1/6/0*

Test results from die ran in PW and D packages - *

- QBS: Qual By Similarity
- Qual Devices are qualified at LEVEL1-260CG
- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: http://www.ti.com/

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

For questions regarding this notice, e-mails can be sent to the contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
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Asia Pacific	PCNAsiaContact@list.ti.com
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