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**Texas Instruments Reliability Report**

(Subject To Attached Disclaimers)

Device Type/Device Family: SN74ACT3622-XXPQ  
 Package Type: 132 PQFP (Ti Designator PQ)  
 Wafer Fabrication Facility: Dallas Linear  
 Assembly/Test Facility: Ti Malaysia  
 Compiled: 05/11

Biased Life Test

Test Method: JESD22-A108  
 Test Condition: 150°/500 hours  
 Sample Size: 9109  
 Rejects: 1 (Unverified)  
 Activation Energy (eV): .5  
 Equivalent Device Hours: 1601  
 Failure Rate (FIT)\*: 1.26  
 MTBF: 9.36E+04 (Years)  
 \*Derated to +55°C with a 60% Confidence Level

Package Related Tests

<u>Description</u>	<u>Condition</u>	<u>Referenced Method</u>	<u>Sample Size/Rejects</u>	
Biased Humidity or HAST	85°C / 85% / 1000 hours or <b>130°C / 85% / 96 hours</b>	JESD22-A101 JESD22-A110	77/0	*
Autoclave	121 °C @ 2 atmospheres absolute for 96 hours	JESD22-A102	77/0	*
Temperature Cycle	-65 °C to +150 °C non-biased for 500 cycles or equivalent	JESD22-A104	77/0	*
High Temp Storage	<b>170 °C / 420 hours</b>	JESD22-A103-A	77/0	*

\* Preconditioning per JEDEC Std. 22, Method A112/A113

### Initial Product Qualification

The subject device, device family, and/or package family have passed Texas Instruments product qualification as follows:

<u>Description</u>	<u>Condition</u>	<u>Sample Size</u>	<u>Referenced Method</u>	
Electrical Characterization	TI Data Sheet	50 units/lot	N/A	
Electrostatic Discharge Sensitivity	HBM MM	3 units/voltage	EIA/JESD22-A114 EIA/JESD22-A115	
Latch-up	Per Technology	5/0 units/lot	EIA/JESD78	
Physical Dimensions	TI Data Sheet	5/0	EIA/JESD22- B100	
Thermal Impedance	Theta-JA on board	Per Pin-Package	EIA/JESD51	
Bias Life Test	125°C / 1000 hours or equivalent	116/0	JESD22-A108	*
Biased Humidity	85°C / 85% / 1000 hours or HAST	77/0	JESD22-A101	*
	130°C / 85% / 96 hours		JESD22-A110	
Autoclave	121 °C @ 2 atmospheres absolute for 96 hours	77/0	JESD22-A102	*
Temperature Cycle	-65 °C to +150 °C non-biased for 1,000 cycles	77/0	JESD22-A104	*
Solder Heat	260 °C for 10 seconds	22/0	JESD22-B106	
Resistance to Solvents	Ink symbol only	12/0	JESD22-B107	
Solderability	Condition A (steam age for 8 hours)	22/0	ANSI/J-STD-002-92	
Flammability	Method A / Method B	5/0	UL-1964	
Bond Strength	-	76/0 wires	ASTM F-459	
Die Shear	-	5/0	MIL-STD-883 Method 2019	
High Temp Storage	150 °C / 1,000 hours	45/0	JESD22-A103-A	*
Moisture Sensitivity	Surface Mount Only	12/0	J-STD-020-A	

\* Precondition performed

### Supplemental Device Characteristics

	Device Type:	SN74ACT3622-PQ		
Die Revision:	-	Assembly Site:	Ti Malaysia	
Master Die:	BACT3622IN/ FACT3622IN	Package Type:	PQFP (Ti Designator PQ)	
Wafer Fab:	DLIN	Pin Count:	132	
Fab Technology:	ACT	Mold Compound:	Sumatomo G700F	
Fab Process:	EP1ZS	Mount Compound:	Hitachi 4085	
Process Code:	650C24X2	Bond:	Au	
Lead Composition:	Cu	Lead Finish	Ni Pd Au	
RoHS Compliant	Yes			

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