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Texas Instruments Extended Temperature Products Reliability Report

(Subject To Attached Disclaimers)

Device Type/Device Family: SN65HVD11HD
Package Type: 8/D
Wafer Fabrication Facility: DFAB
Assembly/Test Facility: MLA
Compiled: 3/11

Biased Life Test

Test Method: JESD22-A108
Test Condition: 175C/1000 hours or equivalent 45/0 Minimum Sample
Sample Size: 45
Rejects: 0

Package Sequence Test

Description	Condition	Referenced Method	Lot/Sample	Rejects
Preconditioning		QSS009-142 JEDEC Std. 22 Method A112/A113	3/45	0
CSAM/TSAM Exposed pad devices only	No Delamination		3/45	0
Storage Bake	2000hr @ Data Sheet Operating Temperature		3/45	N/A
Temperature Cycle	-65°C to +150°C non-biased for 500 cycles or equivalent	JESD22-A104-A	3/45	N/A
Electrical Test	Per Data Sheet with Additional Pin to Pin Leakage Testing		3/45	0
CSAM	No Delamination on Lead or Die		3/5	0
TSAM Exposed pad devices only	50% Maximum Mount Pad Delamination		3/5	0
Decap/Bond Pull	Wirebond Packages Only		3/5-15 Wires	0
Decap/Bond Shear	Wirebond Packages Only	ASTM F-459	3/5-15 Wires	0
Cross Section	Through ball bond or flip chip bump	Examine for bond Integrity	3/1	0

Additional Qualification Testing

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

Description	Condition	Referenced Method	Sample Size	
Electrical Characterization	TI Data Sheet	N/A	30 Units	
Electrostatic Discharge Sensitivity	HBM MM CDM	EIA/JESD22-A114 EIA/JESD22-A115 JESD22-C101	3 Units/voltage N/A N/A	
Latch-up	Per Technology	EIA/JESD78	6/0	
Physical Dimensions	TI Data Sheet	EIA/JESD22- B100	15/0	
Thermal Impedance	Theta-JA on board	EIA/JESD51	Per Pin-Package	
Bias Life Test	125°C / 1000 hours or equivalent	JESD22-A108	77/0	
Biased Humidity or HAST	85°C / 85% / 1000 hours or 130°C / 85% / 96 hours	JESD22-A101 JESD22-A110	77/0	*
Autoclave or Unbiased HAST	121°C @ 2 atm / 96 hours or 130°C / 85% / 96 hours	JESD22-A102 JESD22-A110	77/0	*
Temperature Cycle	-65°C to +150°C non-biased for 500 cycles or equivalent	JESD22-A104	77/0	*
Solderability	Condition A (steam age for 8 hours)	ANSI/J-STD-002-92	22/0	
Bond Strength	-	ASTM F-459	30/0	
Moisture Sensitivity	Surface Mount Only	J-STD-020-A	12/0	

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

Suplemental Device Characteristics

Master Die: BLBD5HVD11AW
Wafer Fab: DFAB
Fab Process: SFAB
Fab Technology: LBC3S
Die Revision: A
Passivation: 10KA Nitride
Metal 1: TiW/AlCu.5
Metal 2: TiW/AlCu.5
Metal 3: COA (Al bond pads)

Assembly Site: MLA
Pin/Package Type: 8/D
Lead Composition: Cu
Lead Finish: NiPdAu
Packaged Die Thickness: 4208458-0001
MSL Level: 3/260C
Metal 4: N/A
Metal 5: N/A
Metal 6: N/A

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