## Qualification Summary:

| AEC TEST GROUP | STRESS TEST | AEC TEST # | TEST CONDITIONS [*1] | REFERENCE TEST METHOD | SAMPLE SIZE PER LOT | NUMBER OF LOTS | RESULTS | REMARKS |
|---|---|---|---|---|---|---|---|---|
| **Group A** ACCELERATED ENVIRONMENT STRESS TESTS | Preconditioning (PC) | A1 | Per MSL | J-STD-020 JESD22-A113 | 77 | 3 | Pass | Per MSL classification |
| | Temperature Humidity Bias (THB) or Biased HAST (HAST) | A2 | 85°C/85%RH, 1000 hrs or 130°C/85%RH, 96 hrs | JESD22-A101 or JESD22-A110 | 77 | 3 | Pass | |
| | Autoclave (AC) or Unbiased HAST (UHAST) or Temperature Humidity Without Bias (TH) | A3 | 121°C/100%RH, 96 hrs or 130°C/85%RH, 96 hrs or 85°C/85%RH, 1000 hrs | JESD22-A102 or JESD22-A118 or JESD22-A101 | 77 | 3 | Pass | |
| | Temperature Cycling (TC) | A4 | Per AEC Temp Grade | JESD22-A104 | 77 | 3 | Pass | |
| | High Temperature Storage Life (HTSL) | A6 | Per AEC Temp Grade | JESD22-A103 | 45 | 1 | Pass | |
| **Group B** ACCELERATED LIFETIME SIMULATION TESTS | High Temperature Operating Life (HTOL) | B1 | Per AEC Temp Grade | JESD22-A108 | 77 | 3 | Pass | |
| | Early Life Failure Rate (ELFR) | B2 | Per AEC Temp Grade | AECQ100-008 | 800 | 3 | Pass | |
| **Group C** PACKAGE ASSEMBLY INTEGRITY TESTS | Wire Bond Shear (WBS) | C1 | - | AECQ100-001 | 30 bonds from minimum of 5 devices | | Pass | As applicable |
| | Wire Bond Pull (WBP) | C2 | - | MIL-STD883 Method 2011 | | | Pass | As applicable |
| | Solderability (SD) | C3 | - | J-STD-002 | 15 | 1 | Pass | |
| | Physical Dimensions (PD) | C4 | - | JESD22-B100 and B108 | 10 | 3 | Pass | |
| **Group D** DIE FABRICATION RELIABILITY TESTS | Electromigration (EM) | D1 | - | - | - | - | - | Die Fabrication Reliability data may be viewed on-site at Analog Devices |
| | Time Dependent Dielectric Breakdown (TDDB) | D2 | - | - | - | - | - | |
| | Hot Carrier Injection (HCI) | D3 | - | - | - | - | - | |
| | Bias Temperature Instability (BTI) | D4 | - | - | - | - | - | |
| | Stress Migration (SM) | D5 | - | - | - | - | - | |
| **Group E** ELECTRICAL VERIFICATION TESTS | ESD HBM (Human Body Model) | E2 | - | AECQ100-002 | 3 | 1 | See Data Sheet/ Contact Us | |
| | ESD CDM (Charged Device Model) | E3 | - | AECQ100-011 | 3 | 1 | See Data Sheet/ Contact Us | |
| | Latch-Up (LU) | E4 | - | AECQ100-004 | 3 | 1 | Pass | |
| | Electrical Distribution (ED) | E5 | - | AECQ100-009 | 30 | 3 | Pass | |

1. *Or equivalent JEDEC conditions*

For FIT/ MTTF estimates, visit FIT/ MTTF

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