

MAX9927AEE/V+T | [Data Sheet](#)
**Qualification Summary:**

| AEC TEST GROUP  | STRESS TEST   | AEC TEST # | TEST CONDITIONS *1  | REFERENCE TEST METHOD                     | SAMPLE SIZE PER LOT                | NUMBER OF LOTS | RESULTS                                       | REMARKS  |
|---|---|------------|---|---|------------------------------------|----------------|---|--|
| <b>Group A</b><br>ACCELERATED ENVIRONMENT STRESS TESTS  | Preconditioning (PC)  | A1         | Per MSL   | J-STD-020<br>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  |  |
| <b>Group B</b><br>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  |  |
| <b>Group C</b><br>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  |  |
| <b>Group D</b><br>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         | -   | -   | -                                  | -              | -   |  |
| <b>Group E</b><br>ELECTRICAL VERIFICATION TESTS         | ESD HBM (Human Body Model)  | E2         | -   | AECQ100-002                               | 3                                  | 1              | See Data Sheet/<br><a href="#">Contact Us</a> |  |
|   | ESD CDM (Charged Device Model)  | E3         | -   | AECQ100-011                               | 3                                  | 1              | See Data Sheet/<br><a href="#">Contact Us</a> |  |
|   | Latch-Up (LU)   | E4         | -   | AECQ100-004                               | 3                                  | 1              | Pass  |  |
|   | Electrical Distribution (ED)  | E5         | -   | AECQ100-009                               | 30                                 | 3              | Pass  |  |

1. Or equivalent JEDEC conditions

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