# Reliability Report 1SP0335D2

## Scope

The goal of this document is to explain reliability tests done on 1SP0335D2 family. Following drivers are covered by this family:

| | | |
|---|---|---|
| 1SP0335D2S1-DIM1200ASM45-TS001 | 1SP0335D2S1-5SNA0750G650300 | 1SP0335D2S1-FZ1200R45KL3_B5 |
| 1SP0335D2S1-5SNA1200G450300 | 1SP0335D2S1-FZ500R65KE3 | 1SP0335D2S1-MBN1200H45E2-H |
| 1SP0335D2S1-FZ400R65KF2 | 1SP0335D2S1-FZ600R65KE3 | 1SP0335D2S1-33 |
| 1SP0335D2S1-FZ600R65KF2 | 1SP0335D2S1-CM750HG-130R | 1SP0335D2S1-45 |
| 1SP0335D2S1-FZ750R65KE3 | 1SP0335D2S1-CM1200HG-90R | 1SP0335D2S1-65 |

## Serial Environmental Load

Serial stress: all the tests in the table below are done on the same samples

| Test Name | Test Settings | Results |
|---|---|---|
| Vibration (sinusoidal) | IEC 60068-2-6:2007-12: Frequency range: 5Hz to 200Hz<br>Cross-over frequency: 8.4Hz<br>Displacement amplitude below cross-over frequency: ±3.5mm<br>Acceleration amplitude above cross-over frequency: 1g<br>Sweep rate: 1.0 Okt/min<br>Test duration per axis: 20 sweeps (X, Y and Z)<br>DUT not powered | Pass |
| Shock | IEC 60068-2-27:2008-02: Pulse shape: Half-sine<br>Peak acceleration: 15g<br>Corresponding duration of the nominal pulse: 6ms<br>Number of shocks in each of the six directions: 100<br>Axis: X, Y and Z (pos. and neg.)<br>DUT not powered | Pass |
| Cold | IEC 60068-2-1:2007-03: Test: Ae<br>Temperature: -40°C<br>Duration: 96h<br>DUT powered | Pass |
| Dry heat | IEC 60068-2-2:2007-07: Test:Be<br>Temperature: 85°C<br>Duration: 96h<br>DUT powered | Pass |
| Change of temperature | IEC 60068-2-14:2009-01: Test: Nb<br>Cycles: 2<br>Start temperature: 20°C<br>Low temperature: -40°C<br>High temperature: 85°C<br>Rate of change: 10K/min<br>Exposure time at lower/upper temperature: 30min<br>DUT powered | Pass |
| Damp heat | IEC 60068-2-78:2012-10: Temperature: 40°C<br>Relative humidity: 93%<br>Duration of test: 96h<br>DUT not powered | Pass |