

VS1103B Qualification Report Summary

1.1 Package qualification

Package type: LQFP 48 RoHS

Dimensions: 7 x 7 x 1.4 (mm)

LQFP48 RoHS (Green) package has passed qualification tests, MSL3 at 260°C

1.2 Device qualification

The qualification is done for devices that have been fabricated with the production masks and encapsulated with the qualified production package. Each device has also passed the test program (+25 °C), that is also called as "Final Test". The qualification tests are summarized below

| Test | Sample size | Conditions | Result Failed/passed |
|--|-------------|--|----------------------|
| Electrical temperature characterization (VS1003B, Lot 5279340) | 10 | -40, +25, +85°C at 5 voltage combinations. | 0/10 * |
| Latch-up immunity (VS1003B, Lot 4328020): I-Test JEDEC JESD78 | 10 | +/- 200 mA CVDD = AVDD = 2.6 V, IOVDD = 3.6 V | 0/ 10 |
| Latch-up immunity (VS1003B, Lot 4328020): Voltage test. | 10 | 3,6 V trigger pulses JEDEC JESD78 CVDD = AVDD = 2.6 V, IOVDD = 3.6 V | 0 / 10 |
| ESD susceptibility (VS1003B, Lot 4234011) MIL-STD-883 3015 | 12 | HBM, 1000, 2000 and 4000 V | 0 / 9 |
| | | HBM 8000 V | 3 / 0 |
| Life test (VS1103B, Lot 7060030) | 34 | 125 °C, 1000 h, AVDD = IOVDD = 2.8V, CVDD = 2.7 V. MIL-STD-883 1005 | 0 / 34 |

**) Relaxed test limits for 3 devices at -40 °C and for 1 device at +85 °C.

1.3 Conclusion

VS1103B device passed the life-test.

Electrical temperature characterization, Latch-up and ESD -test results of VS1003B can be used for VS1103B, because the ROM code is the only difference between VS1003B and VS1103B.

With these considerations the VS1103B device has passed the qualification.