

VS1003B 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

Package type: FBGA 49 RoHS, Dimensions: 7x7x1.45 (mm)
FBGA 49 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 (Lot 5279340)	10	-40, +25, +85°C at 5 voltage combinations.	0/10 *
Latch-up immunity (Lot 4328020): I-Test JEDEC JESD78	10	+/- 200 mA CVDD = AVDD = 2.6 V, IOVDD = 3.6 V	0/ 10
Latch-up immunity (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 (Lot 4234011) MIL-STD-883 3015	12	HBM, 1000, 2000 and 4000 V	0 / 9
		HBM 8000 V	3 / 0
Life test (Lot 5279340)	33	125 °C, 1000 h, AVDD = IOVDD = 3.3V, CVDD = 2.5 V. MIL-STD-883 1005	0 / 33
Life test (Lot 5279340)	34	125 °C, 168 h, AVDD = IOVDD = 3.6V, CVDD = 2.5 V. MIL-STD-883 1005	0 / 34
Life test (Lot 6302090 and 6326020)	17 + 17 = 34	125 °C, 1000 h, AVDD = IOVDD = 3.3V, CVDD = 2.9 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

VS1003B device passed all tests.

It is not recommended to use over voltages in a product even though these were used in the Life tests. Voltages shall be between the minimum and maximum level of the Datasheet.