ZARLINK SEMICONDUCTOR

Software Release and Errata Notice

Le890SLVVP VeriVoice™ Professional Software P1.3.1

Apr 27, 2011

This document describes new features and fixed errata for the Le890SLVVP VeriVoice™ Professional Software. Refer to the Line Test API User's Guide (Document ID #081470), Rev 18 and VeriVoice Professional Test Suite Data Sheet (Document ID #132063), Version 5 for more details.

1.0 REVISION SUMMARY

This is a bug fix to revision P1.3.0 f the *Le890SLVVP software. This release replaces all previous releases.*

This release is compatible with the following VP-API releases:

- Le71SK0002, version P2.17 and P2.18
- Le71SDKAPIL, version P2.17 and P2.18

For compatibility with versions of the VP-API later than 2.18, refer to the corresponding VP-API Release Notes.

2.0 CORRECTED ERRATA FROM P1.3.0

C1 **Correction:** Read Loop Conditions test (`LT_TID_RD_LOOP_COND`) did not indicate a test execution failure under certain internal error conditions. In this release, internal errors will be indicated by setting `vpTestErrorCode = VP_TEST_STATUS_INTERNAL_ERROR` in the `LtTestResultType` structure.

Impact: Applications using `LT_TID_RD_LOOP_COND` should upgrade to this release and check the results structure for test execution failures. If `vpTestErrorCode` is set to `VP_TEST_STATUS_INTERNAL_ERROR` the remaining results should be ignored.

C2 **Correction:** Fixed inconsistent results from Master Socket test (`LT_TID_MSOCKET`) and Resistive Faults test (`LT_TID_RES_FLT`) using Buck Boost power supply designs.

Impact: Applications using the Buck Boost power supply design and either `LT_TID_MSOCKET` or `LT_TID_RES_FLT` should upgrade to this release.

C3 **Change:** Test time reduction for Read Battery Conditions Test (`LT_TID_RD_BAT_COND`).

Impact: Applications using `LT_TID_RD_BAT_COND` and upgrading to this release will observe a test time reduction of approximately 200ms. Test accuracy is not degraded as a result of this change.

C4 **Correction:** Fixed inconsistent results from Three Element Capacitance test (`LT_TID_CAP`) when testing into an off-hook load.

Impact: Applications using `LT_TID_CAP` must upgrade to this release if testing into an off-hook load is possible. Results from the previous release under these conditions should be ignored.

C5 **Correction:** Removed the DC offset from signals in the A-D direction that was previously added during Loopback test (LT_TID_LOOPBACK). This applies to loopback conditions LT_LOOPBACK_CODEC, LT_LOOPBACK_ANALOG and LT_LOOPBACK_BFILTER.

Impact: Applications using LT_TID_LOOPBACK for loopback LT_LOOPBACK_CODEC, LT_LOOPBACK_ANALOG or LT_LOOPBACK_BFILTER should upgrade to this release.

C6 **Change:** Electronic REN test (LT_TID_RINGERS with ringerTestType set to either LT_RINGER_ELECTRONIC_PHNE_TEST or LT_RINGER_ELECTRONIC_PHNE_TEST_3_ELE) now indicates an error if tested into an off-hook or ground-key condition. Testing into a ground-key condition is indicated by measStatus set to LT_MSRMT_STATUS_EXCESSIVE_ILG. Testing into an off-hook condition is indicated by ren , rentg, and renrg set to LT_MAX_REN and fltMask set to LT_RNGM_REN_HIGH. In previous release, these conditions returned 0 for the REN values (ren, rentg, and renrg) and fltMask set to LT_RNGM_REN_LOW.

Impact: Applications should generally avoid running any REN test while the line is detecting either off-hook or ground-key. The REN value returned for the AC based methods (LT_RINGER_REGULAR_PHNE_TEST and LT_RINGER_REGULAR_PHNE_TEST_3_ELE) in this and previous releases is the result of the DC impedance in parallel with the impedance of the AC load at the specified test frequency (provided in LtRingerInputType parameter freq). Applications running an Electronic REN test under these conditions should now check for measStatus set to LT_MSRMT_STATUS_EXCESSIVE_ILG (ground-key) or ren , rentg, and renrg set to LT_MAX_REN and fltMask set to LT_RNGM_REN_HIGH (off-hook).

C7 **Correction:** Fixed LT_TID_DC_VOLTAGE voltage offset correction when starting test from a polarity reversal line state.

Impact: Customers using LT_TID_DC_VOLTAGE should upgrade to this release and will observe accuracy improvements if starting the test from a polarity reversal state.

C8 **Correction:** Removed an invalid current check in the LT_TID_RES_FLT test that was based on an uninitialized variable.

Impact: Customers using the LT_TID_RES_FLT must upgrade to this release to avoid invalid results.

C9 **Correction:** Electronic REN test (LT_TID_RINGERS with ringerTestType set to either LT_RINGER_ELECTRONIC_PHNE_TEST or LT_RINGER_ELECTRONIC_PHNE_TEST_3_ELE) while in wideband CODEC mode caused the test to return invalid results 10% of the time.

Impact: Customers using the LT_TID_RINGERS with ringerTestType set to either LT_RINGER_ELECTRONIC_PHNE_TEST or LT_RINGER_ELECTRONIC_PHNE_TEST_3_ELE must upgrade to this release to avoid invalid results.

C10 **Correction:** Fixed the LT_TID_LINEV for fixed battery tracking designs when testing into an open circuit.

Impact: Customers with fixed battery tracking designs should upgrade to this release to ensure results from an open circuit test case are within the specified values of the VeriVoice Professional Test Suite Data Sheet. Customer with a fixed battery tracking design will also see an increase in test time of approximately 500ms.

2.1 OPERATIONAL NOTES

Customers using VP-API termination type VP_TERM_FXS_GENERIC will observe a reduction in the measurable range of the LT_TID_RD_LOOP_COND imt and ilg results when running from VP-API line states VP_LINE_STANDBY or VP_LINE_STANDBY_POLREV. The ilg and imt return values will be representative of the feed characteristics in these line states causing ilg to report

`LT_MAX_CURRENT` starting at approximately 14mA and `imt` to report some limited value less than the programed ILA.

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