LTC3351 October 2020

LTC3351 ERRATA

This erratum describes conditions that may cause an LTC®3351 to operate differently than expected or described in the data sheet.

Errata Summary

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1	Pre-Charge Current	1

ERRATA #1: PRE-CHARGE CURRENT

During the pre-charge phase of the capacitance and ESR measurement, the LTC3351 is supposed to supply 1/4 full-scale current to the capacitor stack to pre-charge it to a suitable voltage for the capacitance measurement. The LTC3351 is instead pre-charging using 1/32 full-scale current.

Conditions:

All capacitance and ESR measurements.

Impact:

In some applications where the ESR measurement does not leave the capacitor stack with enough voltage for the capacitance measurement pre-charge is needed. In some of these applications the low pre-charge current will not provide enough signal for CV detection. If CV cannot be detected, it is possible that the pre-charge phase will never complete, preventing the capacitance measurement from completing.

Root Cause:

A DAC controlling the charge current is set to an incorrect constant during the pre-charge phase of the capacitance and ESR measurement.

Work Around:

Ensure the application does not require the precharge phase, this may be possible by adjusting capacitance and ESR measurement configuration settings to ensure the voltage at the end of the ESR measurement is larger than the voltage required for the capacitance measurement. If the measurement does become stuck it is possible to terminate the measurement by writing *ctl_stop_cap_esr_meas* to 1.

Device Fix Planned:

The device will be fixed to match the data sheet Pre-Charge Current (1/4 full-scale). New material date code expected approximately 2021 week 2; contact your local sales representative for exact date.

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