TLV320DAC32 Errata

1 Powering Up the Output Driver After a Short Circuit

Conditions: Short circuit detection is enabled.

Result: The drivers power down after detecting a short circuit. After the short is removed and power is cycled, the driver will not power up when programmed.

1.1 Work Around:

- Remove the short
- Disable the short circuit detection
- Power down the driver (using the proper sequence)
- Power up the driver
- Re-enable the short circuit detection

2 HPRCOM Power Up for Single-Ended Mode

Conditions: HPRCOM does not power up the output stage when it is programmed as a single-ended output, and it is connected to the DAC signal.

Result: HPRCOM is not getting powered up

2.1 Work Around:

- HPRCOM must be programmed single ended prior to powering up the DAC. Therefore programming Page 0, Register 38 should be done before programming Page 0, Register 37.

3 Fully Differential Mode Headset Detection

Conditions: When the fully differential mode headset detection and identification is enabled, then DVDD should be present on HPROUT.

Result: The DVDD voltage level is not present on HPROUT

3.1 Work Around:

- Program HPRCOM as single ended. (Page 0, Registers 37 and 38)
- Enable headset detection for differential mode headset. (Page 0, Registers 13 and 14)
- Once the detection interrupt has occurred, program HPRCOM to be the differential signal of HPROUT. (Program a "0" value to Page 0, Registers 37 and 38)

4 DVDD Current Increases During Power-Down State

Conditions: If the DAC and output drivers are powered up, and then reprogrammed for powering down the output drivers, and disconnecting the DAC – the DVDD current is reduced as expected.

If then, it is again reprogrammed for powering down the output drivers even though they are still powered down, and then reprogrammed for disconnecting the DAC even though it is still disconnected (without having been powered up again), then the DVDD supply will increase above the 0.0-mA level.

Result: DVDD current increases to about 0.5 mA when it is powered down (twice) – as described above. This DVDD current level is the same for any number of output driver channels.

4.1 Work Around:

- No work around.
- Avoid reprogramming the registers twice without a power up.
- If the code must be repeated, so that it occurs 2 or more times, then when it is programmed an odd number of times, i.e., 3, 5, 7 times without being powered up, it will have very low current draw. However, if it is programmed an even number of times, i.e., 2, 4, 6 times without being powered up, the DVDD will draw about 0.5 mA.

5 FIX

No fix for these issues is planned.

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