INTRODUCTION

The LTC®2978A is a 100% pin- and configuration-compatible upgrade to the LTC2978, addressing several issues that cause the LTC2978 to operate differently than described in the data sheet.

DESCRIPTION

The LTC2978A addresses the following issues in the LTC2978. Contact Linear Technology for more detailed errata.

Total Unadjusted Error (TUE) Improvement

The LTC2978A has improved ADC Total Unadjusted Error (TUE).

DAC Linearity Improvement

The LTC2978A improves the DAC linearity under certain process corners at high output and common-mode levels, and hot temperature.

DAC Disconnect Timing Issue

The LTC2978A contains an improved state machine that is immune to a rare clock alignment present in the LTC2978 under certain system configurations, potentially causing the voltage servo DACs to not disconnect when a channel turns off.

PIN CONFIGURATION

The pin configuration of the LTC2978A is 100% compatible with the LTC2978. No changes to existing hardware are required to migrate from the LTC2978 to the LTC2978A.

ELECTRICAL CHARACTERISTICS

The electrical characteristics of the LTC2978A are the same as the LTC2978.

CONFIGURATION FILE

The configuration file for the LTC2978A is the same as the LTC2978, with the following exception:

Read-Only Commands

The following read-only command returns different values on the LTC2978 and LTC2978A. No configuration file changes are required, but interpretation of the value must be changed accordingly.

	LTC2978	LTC2978A
MFR_SPECIAL_ID (0xE7)	0x0122	0x0124

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