



SPI[®]-/I²C[®]-Compatible Temperature Sensor and 8-Channel Analog-to-Digital Converter

Silicon Anomaly Sheet

ADT7411

This anomaly list represents the known bugs, anomalies, and workarounds for the ADT7411. The anomalies listed apply to all ADT7411 packaged material (leaded and unleaded) branded as follows:

TOP

First Line ADT7411A
Second Line RQ(Z)
Third Line #DATE CODE
Pin 1 (.)

BOTTOM

#Five Digit Lot Number

Analog Devices, Inc. is committed, through future silicon revisions, to continuously improving silicon functionality. Analog Devices tries to ensure that these future silicon revisions remain compatible with your present software/systems implementing the recommended workarounds outlined here.

ADT7411 SILICON REVISION HISTORY

Silicon Revision Identifier	Kernel Revision Identifier	Chip Marking	Silicon Status	Anomaly Sheet	No. of Reported Anomalies
1.00		All silicon branded ADT7411	Release	Rev. 1	1

Rev. 1

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ADT7411

ANOMALIES

1. Timing Limitation in the Averaging Block [er001]

Background:	Averaging forces the ADT7411 to take an average of 16 measurements before giving a final result.
Issue:	There is a timing limitation in the averaging block. Some signals in this design block could be on the verge of failure due to voltage, temperature, or fab process variation. This results in either very low or very high conversion results at very irregular intervals. One bad result could be seen in a few hundred thousand or even a few million conversions. This limitation covers all measurement channels that have averaging enabled.
Workarounds:	The user can disable the averaging function by setting C5 = 1 in the Control Configuration 1 register. The user can still accomplish averaging by reading back 16 conversions and averaging all 16 readings to get a value that has reduced noise levels.
Related Issues:	None.

ADT7411 SILICON ANOMALIES

Anomaly No.	Description	Status
er001	Timing limitation in the averaging block.	Refer to the workaround described in the Anomalies section.

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