ANALOG DEVICES

Silicon Anomaly List

ADuC7033

This anomaly list describes the known bugs, anomalies, and workarounds for the ADuC7033 integrated precision battery sensor. The anomalies listed apply to all ADuC7033 packaged material branded as follows:

First Line   ADuC7033
Second Line   BSTZ 8L or BCPZ 8L

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 by implementing the recommended workarounds outlined here.

ADuC7033 FUNCTIONALITY ISSUES

Silicon Revision Identifier	Kernel Revision Identifier	Chip Marking	Silicon Status	Anomaly Sheet	No. of Reported Anomalies
8L	A60	ADuC7033 BSTZ 8L or BCPZ 8L	Release	Rev. 0	2

ADuC7033 PERFORMANCE ISSUES

Silicon Revision Identifier	Kernel Revision Identifier	Chip Marking	Silicon Status	Anomaly Sheet	No. of Reported Anomalies
8L	A60	ADuC7033 BSTZ 8L or BCPZ 8L	Release	Rev. 0	2

Rev. 0

ADuC7033

ANOMALIES
ADuC7033 Functionality Issues

1. LIN Communication with VDD > 31 V [er001]:

Background:	The ADuC7033 is specified for operation up to 40 V.
Issue:	If the LIN communication occurs with VDD > 31 V, the ADuC7033 resets.
Workaround:	Pending.
Related Issues:	None.

2. LIN Short-Circuit Recognition [er002]:

Background:	The ADuC7033 features LIN short-circuit protection. In the event of a short circuit on the LIN bus, an interrupt is generated. HVCFG1[2] allows users to enable/disable this interrupt. It is enabled by default.
Issue:	If the LIN is shorted to VDD with a resistance lower than 120 Ω, LIN can oscillate over temperature and supply and a short may not be detected.
Workaround:	Pending.
Related Issues:	None.

ANOMALIES
ADuC7033 Performance Issues

1. ESD [pr001]:

Background:	The ADuC7033 is intended to be classified for HBM ESD ratings of 2 kV and FICDM ESD rating of 500 V.
Issue:	For silicon branded 8L, HBM ESD is specified to 800 V and FICDM ESD is specified to 400 V and 750 V for the corner pins.
Workaround:	Pending.
Related Issues:	None.

2. WU Pin Latch-Up [pr002]:

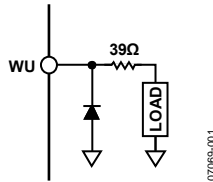|	
Background:	The latch-up condition on the WU pin should follow the AECQ100 specification and should be able to sink up to −100 mA at 125°C.
Issue:	The WU pin fails the AECQ100 specification.
Workaround:	It is recommended to use a protection diode such as a BAS52, as shown in Figure 1, to avoid destructive damage to the part.

Figure 1. Protection Diode on WU Pin

Related Issues:	None.

ADuC7033

SECTION 1. ADuC7033 FUNCTIONALITY ISSUES

Reference Number	Description	Status
er001	LIN communication with VDD > 31 V	Open
er002	LIN short-circuit recognition	Open

SECTION 2. ADuC7033 PERFORMANCE ISSUES

Reference Number	Description	Status
pr001	ESD	Open
pr002	WU pin latch-up	Open

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