CCE4502 Errata Note

Abstract

This document contains the known errata for CCE4502 and the recommended workarounds.

Contents

Introduction

Table 1: Information Table

Datasheet	CCE4502, rev. 2.5
Package(s)	QFN-24, CSP

Identifying the Silicon Revision

Read register REV (0x60) to determine the silicon revision. Revisions CB and CC read 0x40.

Errata Summary

Table 2: Errata Summary

Issue #	Issue Title
1	Latch-up immunity
2	IO-Link permissible voltage range
3	Floating node in linear mode devices

Errata Details

Table 3: Latch-up Immunity

Issue #	Effect
1.	The specified latch-up immunity of VDD5 and VREF is only guaranteed within absolute maximum ratings.
	Conditions
	Device revision CB or CC
	Technical Description
	Latch-up can occur at pins VDD5 and VREF if voltages at the pins or currents into or out of these pins exceed absolute maximum ratings. Latch-up can lead to malfunction or permanent damage of the device.
	Workaround
	Do not connect VREF or VDD5 to external sources which may force voltages at the pins that exceed absolute maximum ratings, such as hot plugged connectors.

Table 4: IO-Link permissible voltage range

Issue #	Effect
2.	The specified voltage range of CQ1 and DIO is less than permissible voltage range of IO-Link Interface and System Specification, version 1.1.2.
	Conditions
	Device revision CB or CC
	Technical Description
	IO-Link Interface and System Specification, version 1.1.2., specifies the minimum limit of the permissible voltage range 'L' as 1 V below voltage at L-. The maximum limit of the permissible voltage range 'H' is specified as 1 V above voltage at L+. The CCE4502 datasheet revision 2.4 specifies the absolute maximum ratings of the CQ1/DIO voltage as 0.3 V below voltage at L- and as 0.3 V above voltage at L+. Exceeding specified limits of the datasheet can lead to malfunction or permanent damage of the device.

	Workaround
	None

Table 5: Floating node in linear mode devices

Issue #	Effect
3.	In linear mode devices, a floating node exists which can activate a static current flow at certain temperatures.
	Conditions
	Device revision CB or CC; device in linear mode; when exceeding a device specific temperature threshold
	Technical Description
	In linear mode devices, a floating node exists which can activate a static current flow of up to approximately 2 mA. The activation of the current flow is temperature dependent and the temperature threshold varies.
	Workaround
	None

Revision History

Revision	Date	Description
3	06-Jul-2022	Rebrand
2	29-Apr-2022	Clarified affected revisions
1	29-Apr-2022	Initial version.

Status Definitions

Status	Definition
DRAFT	The content of this document is under review and subject to formal approval, which may result in modifications or additions.
APPROVED or unmarked	The content of this document has been approved for publication.