

## 1.0 INTRODUCTION

This document describes the errata for the XR17V35x PCI-Express UART family which consists of the XR17V358, XR17V354 and XR17V352.

## 2.0 ERRATAS

This section discusses the known errata for the XR17V35x, customers who will or will not be affected, the root cause of the errata, the severity of the errata and the suggested work-around for the errata.

### 2.1 *Output voltage on the VCC12 supply pins*

There is approximately 1.9V on the VCC12 supply pins when the XR17V35x powers up. The 1.9V may enable the over-voltage protection of an external 1.2V regulator and prevent it from providing the 1.2V required for the 1.2V core of the XR17V35x.

#### 2.1.1 **Customers who will be affected**

Only customers who use an external regulator may be affected. Customers who use the internal buck regulator output for the VCC12 pins will not be affected.

#### 2.1.2 **Root cause**

Antenna diodes are typically used to avoid charge build-up during the manufacturing process. This is typically used on I/Os and internal signals with long signal traces. An antenna diode was inadvertently added on the VCC33A pin (3.3V supply for the analog PHY) to VCC12 during the layout of the device. There is also an ESD diode on the VCC12 pin to GND. When there's no signal on the VCC12 pin, these 2 diodes form a voltage divider that results in a voltage of approximately 1.9V.

#### 2.1.3 **Severity - Low**

There is no reliability issue or concern related to the antenna diode. The only side effect of the diode is that there will be approximately 4mA flowing through the antenna diode if 1.2V is applied to the VCC12 pins. However, this will not damage the antenna diode or the device.

#### 2.1.4 **Suggested Work-Around**

For customers who are using an external regulator, the suggested work-around is to add a 250 ohm pull-down resistor on the VCC12 pin. This pull-down resistor will bring the output voltage down to approximately 1.2V and this should allow the external regulator to turn on to provide 1.2V to the VCC12 pins. This work-around is not required by customers who are using the internal buck regulator.

## 3.0 TECHNICAL SUPPORT

Send any questions about this document or any other technical questions to [uarttechsupport@exar.com](mailto:uarttechsupport@exar.com).

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