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XR17V35x

Errata

Revision History

Document No.	Release Date	Change Description
202ER01	June 29, 2022	**Added:** ■ "Output Voltage on the VCC12 Supply Pins" section.
202ER00	April 22, 2022	Initial release.

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Introduction

This errata documents the known bugs in the XR17V35x device family.

Note: XR17V35x refers to the XR17V352, XR17V354, and XR17V358 devices.

Errata

Potential OS Hang or Crash when XR17V35x is in L1 or L0s & L1 Entry

Description:	The XR17V35x can exhibit incorrect behavior when operating in ASPM L1 entry or L0s & L1 entry. This can result in OS not able to correctly bootup or system hang/crash during data transfer.
Workaround:	Set ASPM to L0 Entry or Disabled under BIOS.

Output Voltage on the VCC12 Supply Pins

Description:	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.
Audience:	Only customers who use an external regulator may be affected. Customers who use the internal buck regulator output for the VCC12 pins are not affected.
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 is no signal on the VCC12 pin, these 2 diodes form a voltage divider that results in a voltage of approximately1.9V.
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.
Workaround:	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.

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