

MAX96717R DEV_REV=6 (C-0D) ERRATA SHEET

Corresponds to data sheet 19-101157; Rev 3; 6/25

DEV REV=6 (per reading of register 0x0E)

The errata listed below describe situations where components of this revision perform differently than expected or differently than described in the data sheet. Analog Devices may, at its own discretion, take future steps to correct these errata when the opportunity to redesign the product presents itself. Prior to that, Analog Devices has determined the following potential workarounds that customers may want to consider when addressing one of the situations described below.

This errata sheet only applies to components of this revision. These components are branded on the topside of the package with a four-digit code in the form yyww, where yy and ww are two-digit numbers representing the year and work week of manufacture, respectively. The revision of these components can be found by reading DEV_REV = 6 from register 0xE.

1) Functional problems with GPIO not transmitting static signals after enabling

Description:

When GPIO transmission and receiving are enabled, if no GPIO value transition occurs, the static GPIO value may not be transmitted to the other side of the link. That is, if the value change occurs before GPIO forwarding is enabled, it may not be picked up and sent to the other side.

Workaround:

If the GPIO is expected to be 1 before enabling, write GPIO_TX_EN to 1 first, and then write GPIO_RX_EN to 1. If the GPIO is expected to be 0 before enabling, write GPIO_RX_EN to 1 first, and then write GPIO_TX_EN to 1. This will ensure the static GPIO value is propagated to the other side.

Resolution:

No silicon fix is planned.

2) UART pass through may output random data when link loses lock

Description:

This issue occurs when using the UART pass-through (tunnel) mode and the link is lost, which may cause the UART to output random data for a short period of time after the connection is lost.

Workaround:

Disable the UART pass through before resetting the GMSL link. Monitor LOCK and if lock is lost, UART data is invalid.

Resolution:

No silicon fix is planned.

3) Eye Opening Monitor and Eye Mapper inaccuracy at elevated junction temperature

Description:

419-100111; Rev 1; 8/25

At junction temperatures above approximately 80°C, some serializer devices may show anomalies in the eye mapper, and the eye-opening monitor (EOM) may report incorrect eye width. The eye opening

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may be reported as smaller (including 0 UI) or larger (> 1UI) than it is. This does not affect device operation and is a reporting issue only.

Due to this erratum, EOM reporting to ERRB should be disabled by ensuring bit EOM_ERR_OEN_A = 0 in register 0x1C. EOM_ERR_OEN_A = 0 by default.

Register 0x1406 must be left at the default value of 0x80. EOM_RST_THR[6:0] in register 0x1406 must not be modified because this could result in accidental resetting of the link.

The reverse channel receiver does not rely on the EOM circuitry for proper operation. Thus, the primary data path is unaffected by this issue.

Workaround:

None.

Resolution:

No silicon fix is planned.

4) MIPI Receiver Requires Reset on Startup

Description:

In DPHY mode, if the MIPI input clock and data pins are not stable when the device powers up, the MIPI receiver may get stuck and not properly interpret the DPHY protocol start of transmission sequence. This can occur if the MIPI source feeding the serializer powers up after the serializer, as there may be glitches or skews on the various MIPI pins as they are powered up.

Workaround:

After the serializer is powered up, and before video is enabled, write the mipi_rx_reset bit to 1 and then back to 0. This will reset the MIPI receiver and allow it to interpret the DPHY start of transmission when video starts.

Resolution:

No silicon fix is planned.

5) After executing Sleep/Wake sequence, RESET ALL puts part into Sleep state.

Description:

After a Sleep/Wake sequence has been executed, writing RESET_ALL=1 will put the part into Sleep state and this will cause the part not being fully reset to its POR values. The part can be woken up using the standard local or remote Wake commands. However, after the Wake sequence, the part will be in the state stored in the retention memory during the previous Sleep command instead of being reset to its POR settings. Registers not stored in retention memory will not be affected by this and will be reset to the POR values.

Workaround:

PWDNB pin can be used to fully reset the part and restore all registers to their POR settings.

Resolution:

No silicon fix is planned.

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Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	January 13, 2023	Initial release for MAX96717R errata separately	
1	08/25	Added errata numbers. Updated datasheet revision. Added statement about leaving register 0x1406 at default in "Eye Opening Monitor and Eye Mapper inaccuracy at elevated junction temperature" section. Removed ADC errata because ADC is not supported with MAX96717R. PCLKDET errata deleted. Eliminated SION pin errata (not necessary for 3Gbps only devices).	All

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