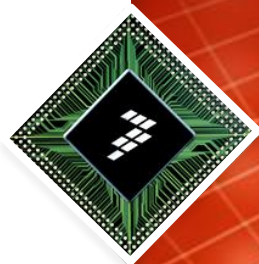




Erratum: ERR008358 eSDHC Data Timeout Errors



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ERR008358: eSDHC Data timeout error may occur earlier than expected

- **Title:** eSDHC Data timeout error may occur earlier than expected
- **Description :** The data timeout counter value loaded into the timeout counter is less than expected and can cause early timeout error in case of eSDHC data transactions.
- Below table shows the Expected vs Actual Timeout period for different values of SYSCTL[DTOCV] :

<u>DTOCV</u>	<u>Expected Timeout</u>	<u>Actual Timeout Counter Value</u>
0x0	2 ¹³ SD_CLK periods	2 ¹³ SD_CLK periods
0x1	2 ¹⁴ SD_CLK periods	2 ¹⁴ SD_CLK periods
0x2	2 ¹⁵ SD_CLK periods	2 ¹⁵ SD_CLK periods
0x3	2 ¹⁶ SD_CLK periods	2 ¹⁶ SD_CLK periods
0x4	2 ¹⁷ SD_CLK periods	2 ¹³ SD_CLK periods
0x5	2 ¹⁸ SD_CLK periods	(2 ¹⁷ – 2 ¹⁶ + 2 ¹³) SD_CLK periods
0x6	2 ¹⁹ SD_CLK periods	(2 ¹⁸ – 2 ¹⁶ + 2 ¹³) SD_CLK periods
0x7	2 ²⁰ SD_CLK periods	(2 ¹⁹ – 2 ¹⁶ + 2 ¹³) SD_CLK periods
0x8	2 ²¹ SD_CLK periods	2 ¹³ SD_CLK periods
0x9	2 ²² SD_CLK periods	(2 ²¹ – 2 ²⁰ + 2 ¹³) SD_CLK periods
0xA	2 ²³ SD_CLK periods	(2 ²² – 2 ²⁰ + 2 ¹³) SD_CLK periods
0xB	2 ²⁴ SD_CLK periods	(2 ²³ – 2 ²⁰ + 2 ¹³) SD_CLK periods
0xC	2 ²⁵ SD_CLK periods	2 ¹³ SD_CLK periods
0xD	2 ²⁶ SD_CLK periods	(2 ²⁵ – 2 ²⁴ + 2 ¹³) SD_CLK periods
0xE	2 ²⁷ SD_CLK periods	(2 ²⁶ – 2 ²⁴ + 2 ¹³) SD_CLK periods
0xF	Reserved	(2 ²⁷ – 2 ²⁴ + 2 ¹³) SD_CLK periods

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- **Impact**

- For data transactions, it may cause early timeout error in case of eSDHC data transactions.

- **Workaround**

- Use higher value of SYSCTL[DTOCV] (including 0xF) to avoid early data timeout error.

