STPM3x device limitations

Silicon identification

This document applies to the part numbers of the STPM3x devices listed in Table 1. Device summary.

Table 1. Device summary

Reference	Part numbers
STPM3x	STPM32
	STPM33
	STPM34

For further information, please refer to the device datasheet on www.st.com.

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For further information contact your local STMicroelectronics sales office.

www.st.com

1 Communication peripheral

1.1 CRC calculation

This issue occurs when the STPM3x device is connected to a host on an SPI or UART port shared with other slave devices.

The issue arises when the device is not selected (SCS pin is held high in case of SPI or low in case of UART), when there are transactions on the MOSI or SCL pins due to the communication between the host and another device on the same bus.

In this situation the CRC calculation block remains active and keeps calculating the CRC based on the value of the least significant bit transmitted.

According to this, it is possible that, when the device is selected again for the communication, the first frame is sent with a wrong CRC byte.

This CRC can be discarded and the CRC of the next frames have the correct value.

1.2 Energy calibration in secondary channel for STPM33

The STPM33 device uses the primary channel voltage information to calculate power and energy on the secondary channel.

To get an accurate measurement, the calibration of the primary voltage channel must be applied also to the secondary voltage channel, writing on CHV2 the same value of CHV1.

Revision history

Table 2. Document revision history

Date	Version	Changes
07-Feb-2023	1	Initial release.

Contents

IMPORTANT NOTICE – READ CAREFULLY