

Dear Valued TRINAMIC Customer,

due to end-of-life statement from one of our suppliers of components ( $\mu$ Controller) we would like to inform you of a hardware and firmware change of the following module:

- **TMCM-1110 stepRocker**
- **TMCM-1110\_CAN stepRocker**

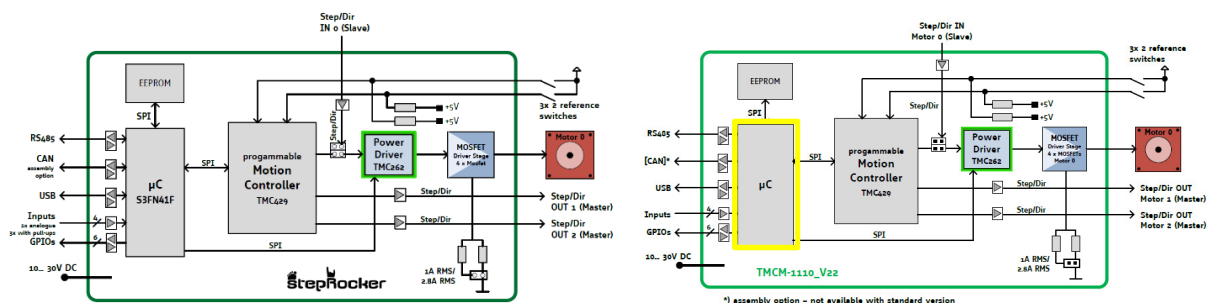
New modules will already be delivered with the hardware changes listed in detail below. If you have questions, please contact your sales partner.

## Hardware Changes

From TMCM-1110 stepRocker PCB V1.3 to V2.3 the following hardware changes have been applied:

- On-board  $\mu$ Controller: the Cortex-M0 microcontroller has been replaced with a more powerful Freescale Cortex-M4 microcontroller.
- On-board  $\mu$ Controller: the supply voltage for the  $\mu$ Controller is +3V3 instead of +5V for the previously used Cortex-M0. Nevertheless, general purpose inputs connected to processor are +5V tolerant and general purpose outputs are level shifted to +5V to maintain maximum compatibility with hardware V1.3.
- USB product and vendor ID will change due to  $\mu$ Controller update.
- Firmware is transferred from hardware V1.3 to V2.2
- System timing of TMCM-1110 V22 may change due to  $\mu$ Controller system update.
- Documentation update.

Changes in TMCM-1110 stepRocker block diagram (yellow marked)



This update is classified as a major change. As the processor has been changed it is highly recommended to test the new hardware and firmware version in the application before switching to the new version in series production.

## Compatibility

Notes on hardware compatibility:

- The new V2.3 is regarded as compatible to the greatest possible extent with the previous V1.3 (keeping in mind that the processor has been changed). The mechanical dimensions have not changed and all connectors, jumpers and programming pads are at the same position. All connectors on the board are pin compatible and all interfaces / interface options from previous hardware version are available with V2.3, also.

Notes on firmware compatibility:

- The new hardware V2.3 is not firmware compatible with previous version V1.3. The new firmware for V2.3 is compatible with regard to functionality (please see firmware manual for more details). Nevertheless, timing / response time is different due to the faster processor used for hardware V2.3.

## Products Affected

Article Name	Affected Article Number	New Article Number
TMCM-1110 stepRocker	10-0239	10-0260
TMCM-1110_CAN stepRocker	10-0243	on request

## Timing

Effective date for firmware release	01.-Sept-2017
-------------------------------------	---------------