Design Advisory: xcore-200 Evaluation Kit (XK-EVK-XE216)

XM-015058 - 2024-04-05

ISSUE OVERVIEW

This issue relates to changes to the xcore-200 Evaluation Kit (XK-EVK-XE216) design to accommodate component availability.

UNITS IMPACTED

This issue impacts revision 1v3 of the XK-EVK-XE216. The version of the board can be determined by checking the version number printed on the silkscreen on the underside of the board.

SYMPTOMS

Existing firmware using Ethernet may not operate correctly on version 1v3.

Existing firmware using the accelerometer or magnetometer does not operate.

Existing firmware accessing the QSPI Flash (e.g. for DFU or similar) may not operate correctly.

CAUSE

Due to component obsolescence, some parts have been changed on the board:

- The Gigabit Ethernet PHY has been changed from the Atheros AR8035 to the Microchip (Micrel) KSZ9031RNX. Along with this, the 5-bit SMI PHY address has changed from 0x04 to 0x00.

- The accelerometer and magnetometer devices are no longer fitted.

- The QSPI Flash has been changed from ISSI IS25LQ080B to ISSI IS25LP080D.

RECTIFICATION

Firmware communicating with the Gigabit Ethernet PHY should use SMI PHY address 0x00. This is typically the only change required to source software. Users should be aware that the register map of the PHY beyond the mandated Ethernet registers will have changed.

Firmware communicating with the QSPI flash (e.g. for DFU) should use the new QSPI flash parameters. Only the JEDEC device ID has changed. Note: normal *xflash* usage is unaffected; it is aware of both old and new variants of this flash device.

Accelerometer and magnetometer functions are no longer available on this board.

FURTHER INFORMATION

Please refer to https://www.xmos.com/advisories-and-notices/ for further updates.

Support is available from https://www.xmos.com/support