

### To Our Valued Customers,

This PCN affects our iMX6 SoloX COM board (product number: EAC00244 and EAC00256).

The Gigabit Ethernet Phy, AR8031 from Atheros, is not available on the market. We have replaced it with RTL8211FDI from Realtek. Although the update only has minimal software implications it is not 100% backward compatible.

The new replacement product is named EAC00433 (and matches the original EAC00256, i.e., industrial temperature range). EAC00433 is also a replacement for EAC00244.

The latest Linux BSP ports available on [imx.embeddedartists.com](http://imx.embeddedartists.com) (and our associated github) have been updated to support the new RTL8211FDI Gigabit Phy. The updates are also backward compatible with the original Phy, meaning that EAC00244 and EAC00256 can run the same (new) Linux BSP.

The status of the Linux BSP:s are as follows:

- V5.15.32 and V5.10.72 support the new RTL8211FDI Gigabit Phy, i.e., EAC00433.
- V5.10.35 and earlier does not have support included.

If you are running an older Linux BSP version, the support must be manually added. Check the relevant commits in Github. Below are for the uBoot:

<https://github.com/embeddedartists/uboot-imx/commit/a8af24caebec26bba1211eecbe310c64f98409d8#diff-83f29e558e928c3d4ef57abbb37b71bd07bd564d7d9bca9c987f78757040d74b>  
<https://github.com/embeddedartists/uboot-imx/commit/a8af24caebec26bba1211eecbe310c64f98409d8#diff-826155d8e874cb6ddbbee88ba3cbd593e1d0feb56e98069517117987ab4eff6>

Specifically check the file `board/embeddedartists/mx6sxea-com/mx6sxea-com.c` where the chip initialization code for Atheros and Realtek has been separated.

The two commits below are for Linux:

<https://github.com/embeddedartists/linux-imx/commit/6e620d22cb25fa5ff8c1fe0d9f2938c008ad228a>  
<https://github.com/embeddedartists/linux-imx/commit/102794d0cac76a861c063ba8c223410eebc10b5c#diff-916a7d69826f2cc226e69867e761265ecfc5e193c3b9709d747671e31b8a47b0>

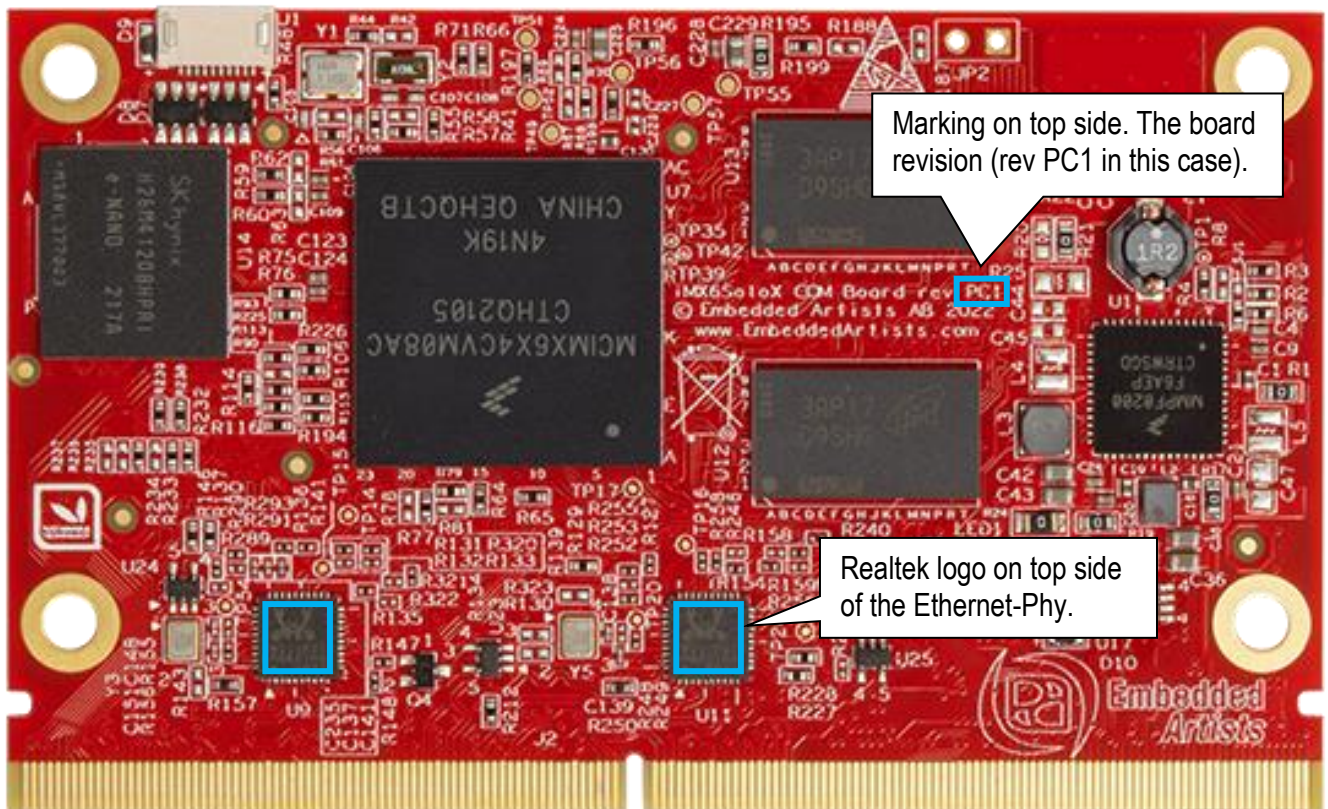
Specifically check the new dts-file properties and changed pin drive strengths. Also check the added support for the Realtek driver in the default configuration (`CONFIG_REALTEK_PHY=y` in `defconfig`, file: `arch/arm/configs/ea_imx_defconfig`).

## Identification

The new Ethernet-Phys will be mounted on boards produced after January 2023. All boards from Embedded Artists have a marking: WO-XXXX-YYWW, where XXXX is the WO-number. YY is the year and WW is the week number when the board was produced.

The affected boards will have a WO-number above or including:  $XXXX \geq 1179$  and revision PC1 or later.

Below is a picture of the new rev PC1 board.



Kind Regards,  
Embedded Artists AB  
March 23rd, 2023