

To Our Valued Customers,

This PCN affects our iMX7 Dual COM board (product number: EAC00274 and EAC00276).

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 EAC00417 (and match the original EAC00276, i.e., extended temperature range). EAC00417 is also a replacement for EAC00274.

The latest Linux BSP ports available on 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 EAC00276 and EAC00417 can run the same Linux BSP.

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

- V5.15.32 and V5.10.72 supports the new RTL8211FDI Gigabit Phy, i.e., EAC00417.
- 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 is for the uBoot:

<https://github.com/embeddedartists/uboot-imx/commit/a8af24caebec26bba1211eecbe310c64f98409d8#diff-205e8144887319415937ba9370cf83df1e61c752692083a7ada5466ee9bd09e1>

Specifically check the file `board/embeddedartists/mx7dea-com/mx7dea-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/eec9856d03724107abad05c5a892436f58645490>
<https://github.com/embeddedartists/linux-imx/commit/102794d0cac76a861c063ba8c223410eebc10b5c>

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`).

Kind Regards,
Embedded Artists AB
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