Xilinx Zynq MPSoC EEMI Documentation

Xilinx Zynq MPSoC Firmware Interface

The zynqmp-firmware node describes the interface to platform firmware. ZynqMP has an interface to communicate with secure firmware. Firmware driver provides an interface to firmware APIs. Interface APIs can be used by any driver to communicate with PMC(Platform Management Controller).

Embedded Energy Management Interface (EEMI)

The embedded energy management interface is used to allow software components running across different processing clusters on a chip or device to communicate with a power management controller (PMC) on a device to issue or respond to power management requests.

Any driver who wants to communicate with PMC using EEMI APIs use the functions provided for each function.

IOCTL

IOCTL API is for device control and configuration. It is not a system IOCTL but it is an EEMI API. This API can be used by master to control any device specific configuration. IOCTL definitions can be platform specific. This API also manage shared device configuration.

The following IOCTL IDs are valid for device control: - IOCTL_SET_PLL_FRAC_MODE 8 - IOCTL_GET_PLL_FRAC_MODE 9 - IOCTL_SET_PLL_FRAC_DATA 10 - IOCTL_GET_PLL_FRAC_DATA 11

Refer EEMI API guide [0] for IOCTL specific parameters and other EEMI APIs.

References

[0] Embedded Energy Management Interface (EEMI) API guide:
https://www.xilinx.com/support/documentation/user_guides/ug1200-eemi-api.pdf