

* Freescale Communications Processor Module

NOTE: This is an interim binding, and will likely change slightly, as more devices are supported. The QE bindings especially are incomplete.

* Root CPM node

Properties:

- compatible : "fsl,cpm1", "fsl,cpm2", or "fsl,qe".
- reg : A 48-byte region beginning with CPCr.

Example:

```
cpm@119c0 {
    #address-cells = <1>;
    #size-cells = <1>;
    #interrupt-cells = <2>;
    compatible = "fsl,mpc8272-cpm", "fsl,cpm2";
    reg = <119c0 30>;
}
```

* Properties common to multiple CPM/QE devices

- fsl,cpm-command : This value is ORed with the opcode and command flag to specify the device on which a CPM command operates.
- fsl,cpm-brg : Indicates which baud rate generator the device is associated with. If absent, an unused BRG should be dynamically allocated. If zero, the device uses an external clock rather than a BRG.
- reg : Unless otherwise specified, the first resource represents the scc/fcc/ucc registers, and the second represents the device's parameter RAM region (if it has one).

* Multi-User RAM (MURAM)

The multi-user/dual-ported RAM is expressed as a bus under the CPM node.

Ranges must be set up subject to the following restrictions:

- Children's reg nodes must be offsets from the start of all muram, even if the user-data area does not begin at zero.
- If multiple range entries are used, the difference between the parent address and the child address must be the same in all, so that a single mapping can cover them all while maintaining the ability to determine CPM-side offsets with pointer subtraction. It is recommended that multiple range entries not be used.
- A child address of zero must be translatable, even if no reg resources contain it.

A child "data" node must exist, compatible with "fsl,cpm-muram-data", to indicate the portion of muram that is usable by the OS for arbitrary purposes. The data node may have an arbitrary number of reg resources, all of which contribute to the allocatable muram pool.

cpm.txt

Example, based on mpc8272:

```
muram@0 {
    #address-cells = <1>;
    #size-cells = <1>;
    ranges = <0 0 10000>;

    data@0 {
        compatible = "fsl,cpm-muram-data";
        reg = <0 2000 9800 800>;
    };
};
```