

* UCC (Unified Communications Controllers)

Required properties:

- device_type : should be "network", "hlcdc", "uart", "transparent", "bisync", "atm", or "serial".
- compatible : could be "ucc_ghet" or "fsl_atm" and so on.
- cell-index : the ucc number(1-8), corresponding to UCCx in UM.
- reg : Offset and length of the register set for the device
- interrupts : <a b> where a is the interrupt number and b is a field that represents an encoding of the sense and level information for the interrupt. This should be encoded based on the information in section 2) depending on the type of interrupt controller you have.
- interrupt-parent : the phandle for the interrupt controller that services interrupts for this device.
- pio-handle : The phandle for the Parallel I/O port configuration.
- port-number : for UART drivers, the port number to use, between 0 and 3. This usually corresponds to the /dev/ttyQE device, e.g. <0> = /dev/ttyQE0. The port number is added to the minor number of the device. Unlike the CPM UART driver, the port-number is required for the QE UART driver.
- soft-uart : for UART drivers, if specified this means the QE UART device driver should use "Soft-UART" mode, which is needed on some SOCs that have broken UART hardware. Soft-UART is provided via a microcode upload.
- rx-clock-name: the UCC receive clock source
 "none": clock source is disabled
 "brg1" through "brg16": clock source is BRG1-BRG16, respectively
 "clk1" through "clk24": clock source is CLK1-CLK24, respectively
- tx-clock-name: the UCC transmit clock source
 "none": clock source is disabled
 "brg1" through "brg16": clock source is BRG1-BRG16, respectively
 "clk1" through "clk24": clock source is CLK1-CLK24, respectively

The following two properties are deprecated. rx-clock has been replaced with rx-clock-name, and tx-clock has been replaced with tx-clock-name.

Drivers that currently use the deprecated properties should continue to do so, in order to support older device trees, but they should be updated to check for the new properties first.

- rx-clock : represents the UCC receive clock source.
 0x00 : clock source is disabled;
 0x1~0x10 : clock source is BRG1~BRG16 respectively;
 0x11~0x28: clock source is QE_CLK1~QE_CLK24 respectively.
- tx-clock: represents the UCC transmit clock source;
 0x00 : clock source is disabled;
 0x1~0x10 : clock source is BRG1~BRG16 respectively;
 0x11~0x28: clock source is QE_CLK1~QE_CLK24 respectively.

Required properties for network device_type:

- mac-address : list of bytes representing the ethernet address.
- phy-handle : The phandle for the PHY connected to this controller.

Recommended properties:

- phy-connection-type : a string naming the controller/PHY interface type, i.e., "mii" (default), "rmii", "gmii", "rgmii", "rgmii-id" (Internal Delay), "rgmii-txid" (delay on TX only), "rgmii-rxid" (delay on RX only), "tbi", or "rtbi".

Example:

ucc.txt

```
ucc@2000 {  
    device_type = "network";  
    compatible = "ucc_geth";  
    cell-index = <1>;  
    reg = <2000 200>;  
    interrupts = <a0 0>;  
    interrupt-parent = <700>;  
    mac-address = [ 00 04 9f 00 23 23 ];  
    rx-clock = "none";  
    tx-clock = "clk9";  
    phy-handle = <212000>;  
    phy-connection-type = "gmii";  
    pio-handle = <140001>;  
};
```