

Freescall Localbus UPM programmed to work with NAND flash

Required properties:

- compatible : "fsl,upm-nand".
- reg : should specify localbus chip select and size used for the chip.
- fsl,upm-addr-offset : UPM pattern offset for the address latch.
- fsl,upm-cmd-offset : UPM pattern offset for the command latch.

Optional properties:

- fsl,upm-wait-flags : add chip-dependent short delays after running the UPM pattern (0x1), after writing a data byte (0x2) or after writing out a buffer (0x4).
- fsl,upm-addr-line-cs-offsets : address offsets for multi-chip support. The corresponding address lines are used to select the chip.
- gpios : may specify optional GPIOs connected to the Ready-Not-Busy pins (R/B#). For multi-chip devices, "n" GPIO definitions are required according to the number of chips.
- chip-delay : chip dependent delay for transferring data from array to read registers (tR). Required if property "gpios" is not used (R/B# pins not connected).

Examples:

```
upm@1,0 {
    compatible = "fsl,upm-nand";
    reg = <1 0 1>;
    fsl,upm-addr-offset = <16>;
    fsl,upm-cmd-offset = <8>;
    gpios = <&qe_pio_e 18 0>;

    flash {
        #address-cells = <1>;
        #size-cells = <1>;
        compatible = "...";

        partition@0 {
            ...
        };
    };
};

upm@3,0 {
    #address-cells = <0>;
    #size-cells = <0>;
    compatible = "tqc,tqm8548-upm-nand", "fsl,upm-nand";
    reg = <3 0x0 0x800>;
    fsl,upm-addr-offset = <0x10>;
    fsl,upm-cmd-offset = <0x08>;
    /* Multi-chip NAND device */
    fsl,upm-addr-line-cs-offsets = <0x0 0x200>;
    fsl,upm-wait-flags = <0x5>;
    chip-delay = <25>; // in micro-seconds

    nand@0 {
        #address-cells = <1>;
        #size-cells = <1>;
```

upm-nand.txt

```
partition@0 {  
    label = "fs";  
    reg = <0x00000000 0x10000000>;  
};  
};
```