Mango-IMX6Q UART3 제어 해 보기

Document History

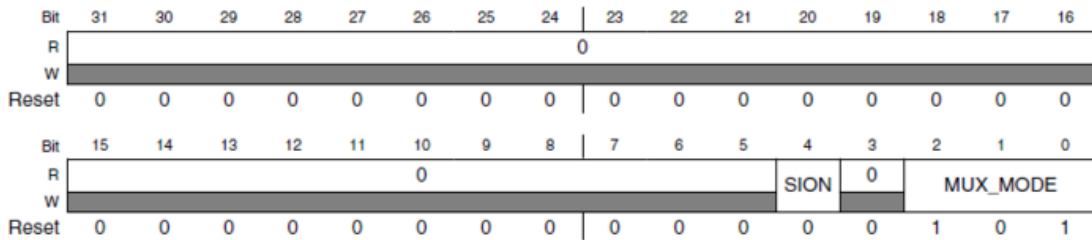| Revision	Date	Change note
Init	2016-02-26	전종인

1. Mango-i.MX6 UART3 제어 해 보기

IMX6Q 는 PIN mux 가 됩니다.
CM-IMX6 핀맵-20151120.xlsx

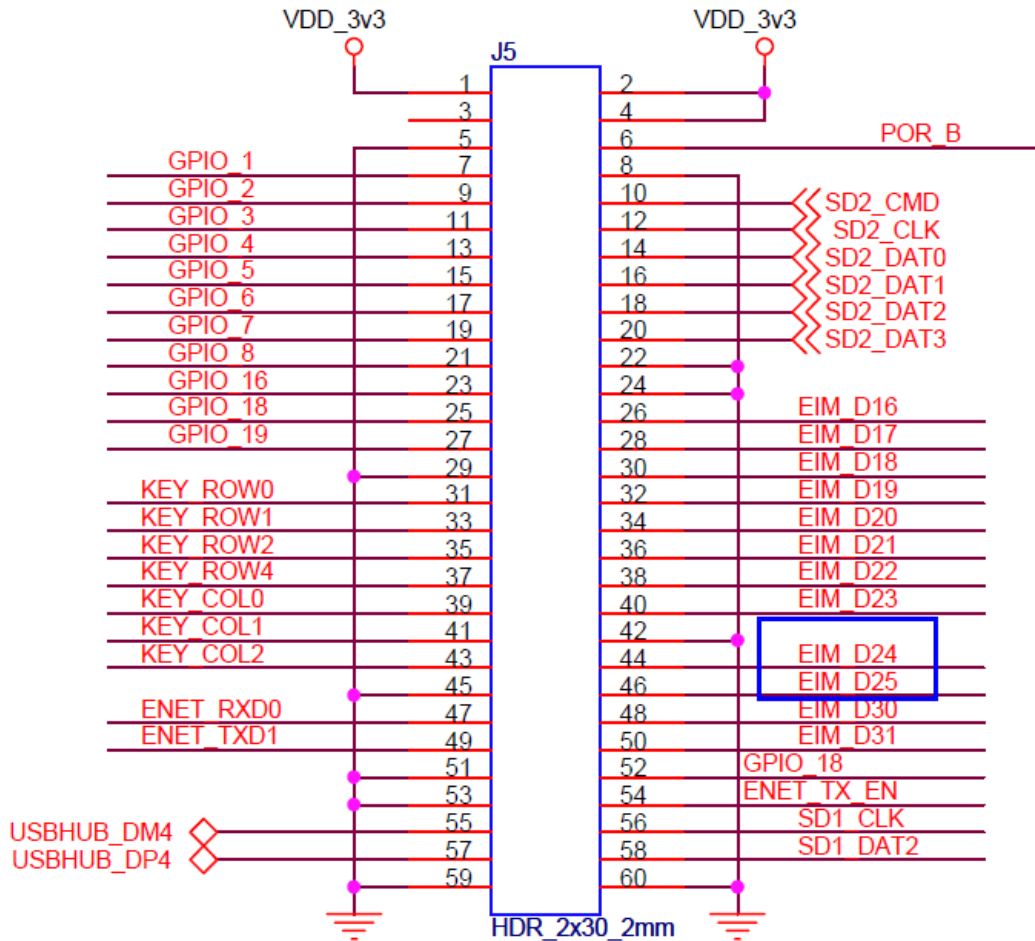EIM_D24 (UART3_TX_DATA)
EIM_D25 (UART3_RX_DATA)
사용 할 수 있습니다.

36.4.42 Pad Mux Register (IOMUXC_SW_MUX_CTL_PAD_EIM_DATA25)

Address: 20E_0000h base + B8h offset = 20E_00B8h

Bit	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
R									0							
W																
Reset	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
R						0						SION	0		MUX_MODE	
W																
Reset	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1

IOMUXC_SW_MUX_CTL_PAD_EIM_DATA25 field descriptions

Field	Description
31–5 Reserved	This read-only field is reserved and always has the value 0.
4 SION	Software Input On Field. Force the selected mux mode input path no matter of MUX_MODE functionality. 1 **ENABLED** — Force input path of pad EIM_D25. 0 **DISABLED** — Input Path is determined by functionality of the selected mux mode (regular).
3 Reserved	This read-only field is reserved and always has the value 0.
MUX_MODE	MUX Mode Select Field. Select 1 of 8 iomux modes to be used for pad: EIM_D25. NOTE: Pad EIM_D25 is involved in Daisy Chain. 000 **ALT0** — Select signal EIM_DATA25. 001 **ALT1** — Select signal ECSPI4_SS3. 010 **ALT2** — Select signal UART3_RX_DATA. - Configure register IOMUXC_UART3_UART_RX_DATA_SELECT_INPUT for mode ALT2. 011 **ALT3** — Select signal ECSPI1_SS3. - Configure register IOMUXC_ECSPI1_SS3_SELECT_INPUT for mode ALT3. 100 **ALT4** — Select signal ECSPI2_SS3. 101 **ALT5** — Select signal GPIO3_IO25. 110 **ALT6** — Select signal AUD5_RXC. - Configure register IOMUXC_AUD5_INPUT_RXCLK_AMX_SELECT_INPUT for mode ALT6. 111 **ALT7** — Select signal UART1_DSR_B.

커널 수정은 아래와 같이 수정하면 됩니다.

```
"arch/arm/boot/dts/imx6qdl-sabresd.dtsi"
&uart3 {
        pinctrl-names = "default";
        pinctrl-0 = <&pinctrl_uart3_1>;
        status = "okay";
};
```

1.1. UART3 테스트 방법

보드 UART3 TX,RX <-> RS232 to USB 컨버터 <-> PC USB 포트

```
[root@localhost ~]# stty -F /dev/ttymxc2
speed 115200 baud; line = 0;
-brkint -imaxbel
[root@localhost ~]# echo 21212 > /dev/ttymxc2
[root@localhost ~]# cat /dev/ttymxc2
```