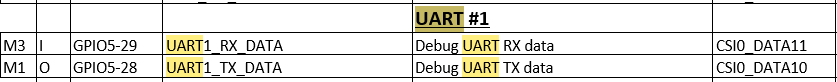
### UART

### CPU RS232 port CPU UART #1

# Controller Board Connectors

J2 – RS232 UART, USB Type-B 4 pin

***Device tree***



The device tree have 5 entries of UART

The new board is using only one for the serial communication debug

&uart1 {

pinctrl-names = "default";

pinctrl-0 = <&pinctrl\_uart1>;

status = "okay";

};

&uart2 {

pinctrl-names = "default";

pinctrl-0 = <&pinctrl\_uart2>;

status = "okay";

};

&uart3 {

pinctrl-names = "default";

pinctrl-0 = <&pinctrl\_uart3>;

status = "okay";

};

&uart4 {

pinctrl-names = "default";

pinctrl-0 = <&pinctrl\_uart4>;

status = "okay";

};

Uart 5 is already commented out

/\*

&uart5 {

pinctrl-names = "default";

pinctrl-0 = <&pinctrl\_uart5>;

status = "okay";

};

\*/

In the iomux region in the DTS the pins are assign correct

pinctrl\_uart1: uart1grp {

fsl,pins = <

MX6QDL\_PAD\_CSI0\_DAT10\_\_UART1\_TX\_DATA 0x1b0b1

MX6QDL\_PAD\_CSI0\_DAT11\_\_UART1\_RX\_DATA 0x1b0b1

>;

};

pinctrl\_uart2: uart2grp {

fsl,pins = <

MX6QDL\_PAD\_EIM\_D26\_\_UART2\_TX\_DATA 0x1b0b1

MX6QDL\_PAD\_EIM\_D27\_\_UART2\_RX\_DATA 0x1b0b1

>;

};

pinctrl\_uart3: uart3grp {

fsl,pins = <

MX6QDL\_PAD\_EIM\_D24\_\_UART3\_TX\_DATA 0x1b0b1

MX6QDL\_PAD\_EIM\_D25\_\_UART3\_RX\_DATA 0x1b0b1

>;

};

pinctrl\_uart4: uart4grp {

fsl,pins = <

MX6QDL\_PAD\_KEY\_COL0\_\_UART4\_TX\_DATA 0x1b0b1

MX6QDL\_PAD\_KEY\_ROW0\_\_UART4\_RX\_DATA 0x1b0b1

>;

};

All serial ports described in the .dts are already mapped by the linux kernel to serial devices. On the target enter:

The ttymx is the physical device for the onboard uart in imx.6 serios.

ubuntu@Foxcom:~$ ls -l /dev/ttymxc\*

crw------- 1 root root 207, 16 Jan 1 00:00 /dev/ttymxc0

crw------- 1 ubuntu tty 207, 17 Jan 1 06:37 /dev/ttymxc1

crw------- 1 root root 207, 18 Jan 1 00:00 /dev/ttymxc2

crw------- 1 root root 207, 19 Jan 1 00:00 /dev/ttymxc3

ttymxc4 (uart 5) is disabled as we can see in the DTS.

The console in the EVK is using uart 2

cat /proc/cmdline

console=ttymxc1,115200 rootwait root=/dev/mmcblk0p1

We need to modify the console to ttymxc0 for the board to come.

I commented out in the foxcom.dts all except UART 2

ls /dev/ttymxc\*

/dev/ttymxc1

We have now only one.

So when the board to come we need to use UART 1 ttymxc0

I save a copy DTS of the current version with UART 1 enabled to:

dts\_versions/2/foxcom.dts

Changes In the Uboot sources

grep -nr CONFIG\_CONSOLE\_DEV

Will show:

u-boot.cfg:814:#define CONFIG\_CONSOLE\_DEV "ttymxc1"

include/configs/embestmx6boards.h:17:#define CONFIG\_CONSOLE\_DEV "ttymxc1"

include/configs/mx6sabre\_common.h:85: "console=" CONFIG\_CONSOLE\_DEV "\0" \

include/configs/aristainetos.h:21:#define CONFIG\_CONSOLE\_DEV "ttymxc4"

include/configs/aristainetos2.h:22:#define CONFIG\_CONSOLE\_DEV "ttymxc1"

include/configs/foxcom.h:17:#define CONFIG\_CONSOLE\_DEV "ttymxc1"

include/configs/aristainetos-common.h:70: "console=" CONFIG\_CONSOLE\_DEV "\0" \

include/configs/tqma6.h:317: "console=" CONFIG\_CONSOLE\_DEV "\0" \

include/configs/mx6qsabreauto.h:14:#define CONFIG\_CONSOLE\_DEV "ttymxc3"

include/configs/mx6sabresd.h:20:#define CONFIG\_CONSOLE\_DEV "ttymxc0"

include/configs/tqma6\_mba6.h:28:#define CONFIG\_CONSOLE\_DEV "ttymxc1"

include/configs/o2dnt-common.h:105:#if !defined(CONFIG\_CONSOLE\_DEV)

include/configs/o2dnt-common.h:106:#define CONFIG\_CONSOLE\_DEV "ttyPSC1"

include/configs/o2dnt-common.h:141: CONFIG\_CONSOLE\_DEV ",${baudrate}\0" \

include/configs/mx6cuboxi.h:85:#define CONFIG\_CONSOLE\_DEV "ttymxc0"

include/configs/mx6cuboxi.h:98: "console=" CONFIG\_CONSOLE\_DEV "\0" \

include/autoconf.mk:171:CONFIG\_CONSOLE\_DEV="ttymxc1"

Our board is include/configs/foxcom.h

We need to change UART 2 to UART1

#ifndef \_\_FOXCOM\_CONFIG\_H

#define \_\_FOXCOM\_CONFIG\_H

#define CONFIG\_MXC\_UART\_BASE UART2\_BASE -> CHANGE TO UART1\_BASE

#define CONFIG\_CONSOLE\_DEV "ttymxc1" - > CHANGE TO ttymxc0