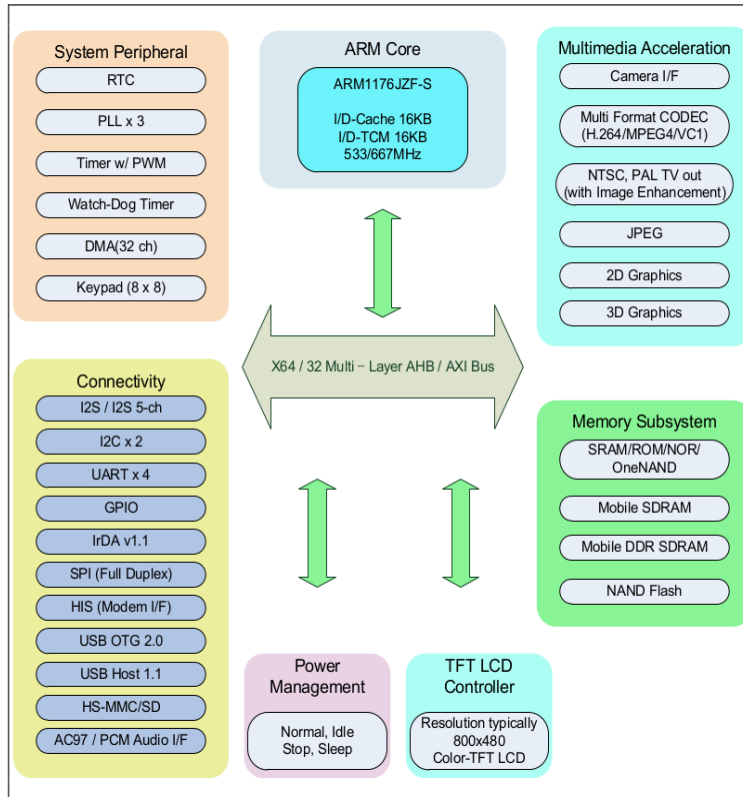


# ARM11 Architecture

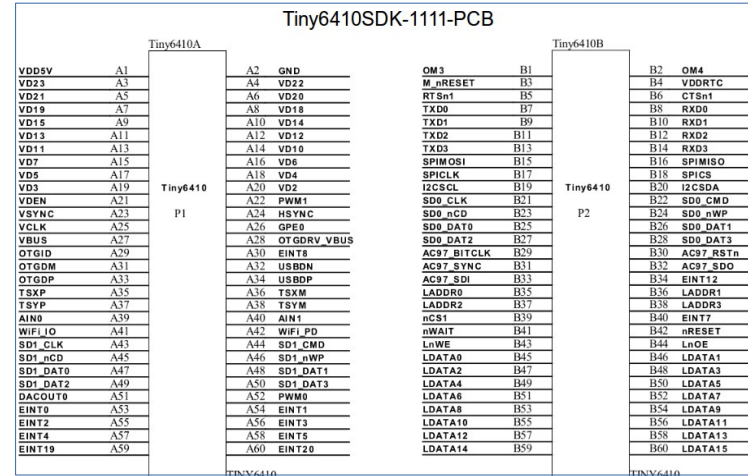
## CPU Block Diagram



## Memory Map (Partial)

Start Address	End Address	Int. ROM	Stepping Stone (NAND Ctrl.)	SROM Ctrl.	One NAND Ctrl. 0	One NAND Ctrl. 1	DRAM Ctrl 1
0x00000000	0x07FFFFFF	O <sup>1</sup>	-	O <sup>1</sup>	O <sup>1</sup>	-	-
0x08000000	0x0BFFFFFF	O	-	-	-	-	-
0x0C000000	0x0FFFFFFF	-	O	-	-	-	-
0x10000000	0x17FFFFFF	-	-	O	-	-	-
0x18000000	0x1FFFFFFF	-	-	O	-	-	-
0x20000000	0x27FFFFFF	-	-	O <sup>2</sup>	O <sup>2</sup>	-	-
0x28000000	0x2FFFFFFF	-	-	O <sup>2</sup>	-	O <sup>2</sup>	-
0x30000000	0x37FFFFFF	-	-	O	-	-	-
0x38000000	0x3FFFFFFF	-	-	O	-	-	-
0x40000000	0x47FFFFFF	-	-	-	-	-	-
0x48000000	0x4FFFFFFF	-	-	-	-	-	-
0x50000000	0x5FFFFFFF	-	-	-	-	-	O
0x60000000	0x6FFFFFFF	-	-	-	-	-	O

## Connector information



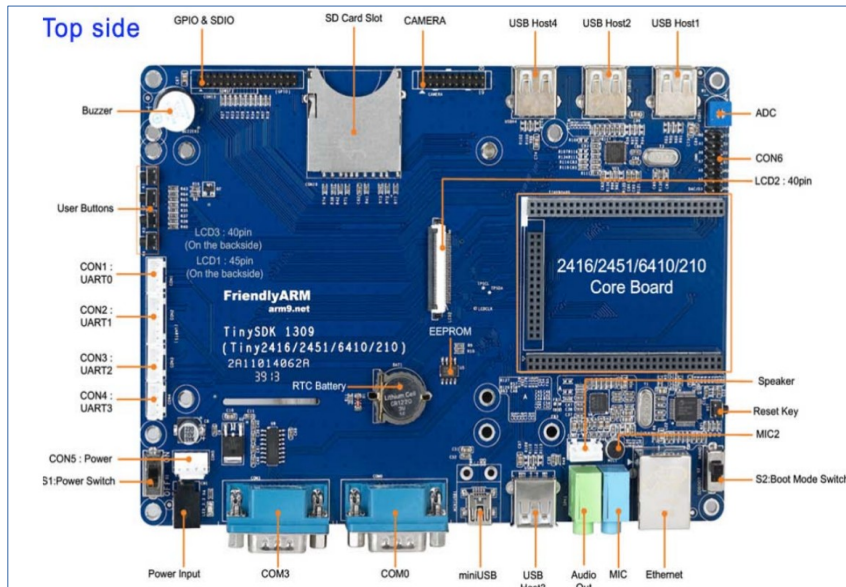
## GPIO Special Purpose Registers

PortName	Number of Pins.	Muxed pins	Power Inform.
GPA port	8	UART/EINT	1.8~3.3V
GPB port	7	UART/IrDA/I2C/CF/Ext.DMA/EINT	1.8~3.3V
GPC port	8	SPI/SDMMC/I2S_V40/EINT	1.8~3.3V
GPD port	5	PCM/I2S/AC97/EINT	1.8~3.3V
GPE port	5	PCM/I2S/AC97	1.8~3.3V
GPF port	16	CAMIF/PWM/EINT	1.8~3.3V
GPG port	7	SDMMC/EINT	1.8~3.3V

# Process for GPIO Testing

# Development Kit

► Schematic of the development kit



Tiny6410A				Tiny6410B			
VDD5V	A1	A2	GND	OM3	B1	B2	OM4
VD23	A3	A4	VD22	M_nRESET	B3	B4	VDDRTC
VD21	A5	A6	VD20	RTSn1	B5	B6	CTSn1
VD19	A7	A8	VD18	TXD0	B7	B8	RXD0
VD15	A9	A10	VD14	TXD1	B9	B10	RXD1
VD13	A11	A12	VD12	TXD2	B11	B12	RXD2
VD11	A13	A14	VD10	TXD3	B13	B14	RXD3
VD7	A15	A16	VD6	SPIMOSI	B15	B16	SPIMISO
VD5	A17	A18	VD4	SPICLK	B17	B18	SPICS
VD3	A19	A20	VD2	IC2CSCL	B19	B20	IC2SDA
VDEN	A21	A22	PWM1	SD0_CLK	B21	B22	SD0_CMD
VSYNCR	P1	A24	HSYNCR	SD0_nCD	B23	B24	SD0_nWP
VCLK	A25	A26	GP0	SD0_DAT0	B25	B26	SD0_DAT1
VBUS	A27	A28	OTGDRV VBUS	SD0_DAT2	B27	B28	SD0_DAT3
OTGID	A29	A30	EINT5	AC97_BITCLK	B29	B30	AC97_RSTB1
OTGDM	A31	A32	USBDM	AC97_SYNC	B31	B32	AC97_SDO
OTGDP	A33	A34	USBOP	AC97_SDI	B33	B34	EINT12
TSXP	A35	A36	TSXM	LADDR0	B35	B36	LADDR1
TSYP	A37	A38	TSYM	LADDR2	B37	B38	LADDR3
A1N0	A39	A40	nI1	IC51	B39	B40	EINT7
WiFi_I0	A41	A42	WiFi_PD	nWAIT	B41	B42	nRESET
SD1_CLK	A43	A44	SD1_CMD	LnWE	B43	B44	LnOE
SD1_nCD	A45	A46	SD1_nWP	LDATA0	B45	B46	LDATA1
SD1_DAT0	A47	A48	SD1_DAT1	LDATA2	B47	B48	LDATA3
SD1_DAT2	A49	A50	SD1_DAT3	LDATA4	B49	B50	LDATA5
DACOUT0	A51	A52	PWM0	LDATA6	B51	B52	LDATA7
EINT0	A53	A54	EINT1	LDATA8	B53	B54	LDATA9
EINT2	A55	A56	EINT3	LDATA10	B55	B56	LDATA11
EINT4	A57	A58	EINT5	LDATA12	B57	B58	LDATA13
EINT19	A59	A60	EINT20	LDATA14	B59	B60	LDATA15

## Connector information

## Device driver

## Modify menuconfig script

## Compile and build device driver module

Upload the device driver module and user application program to the target platform

```
$insmod device-driver.ko
```

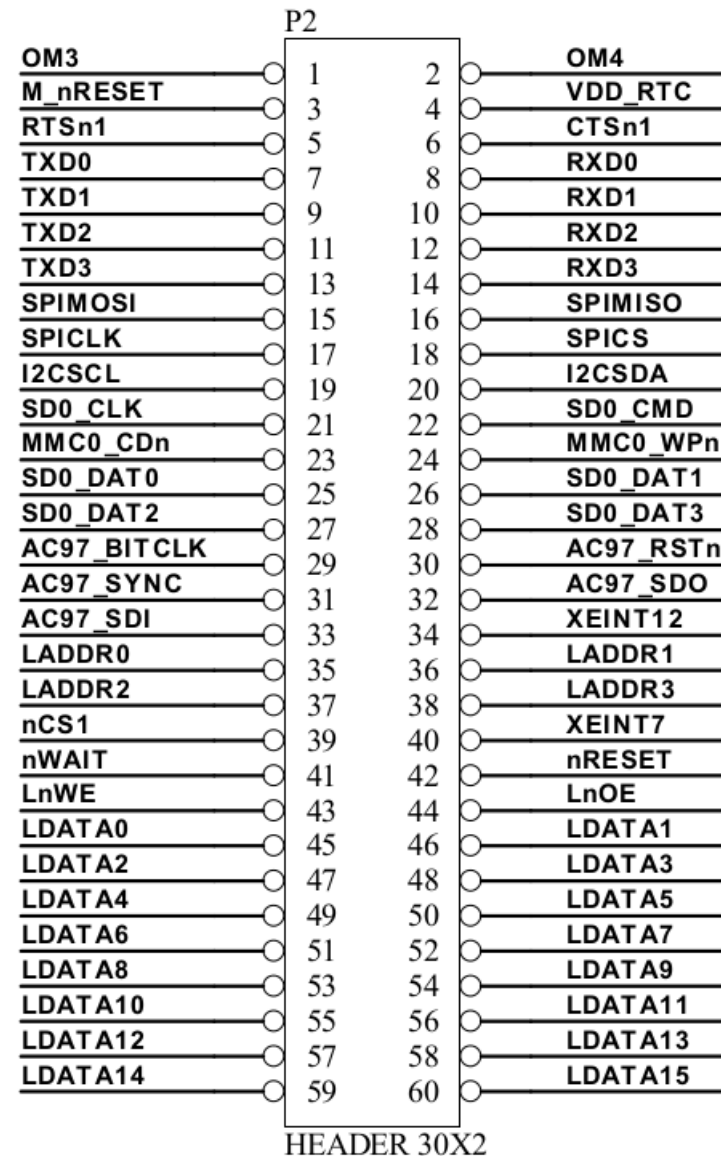
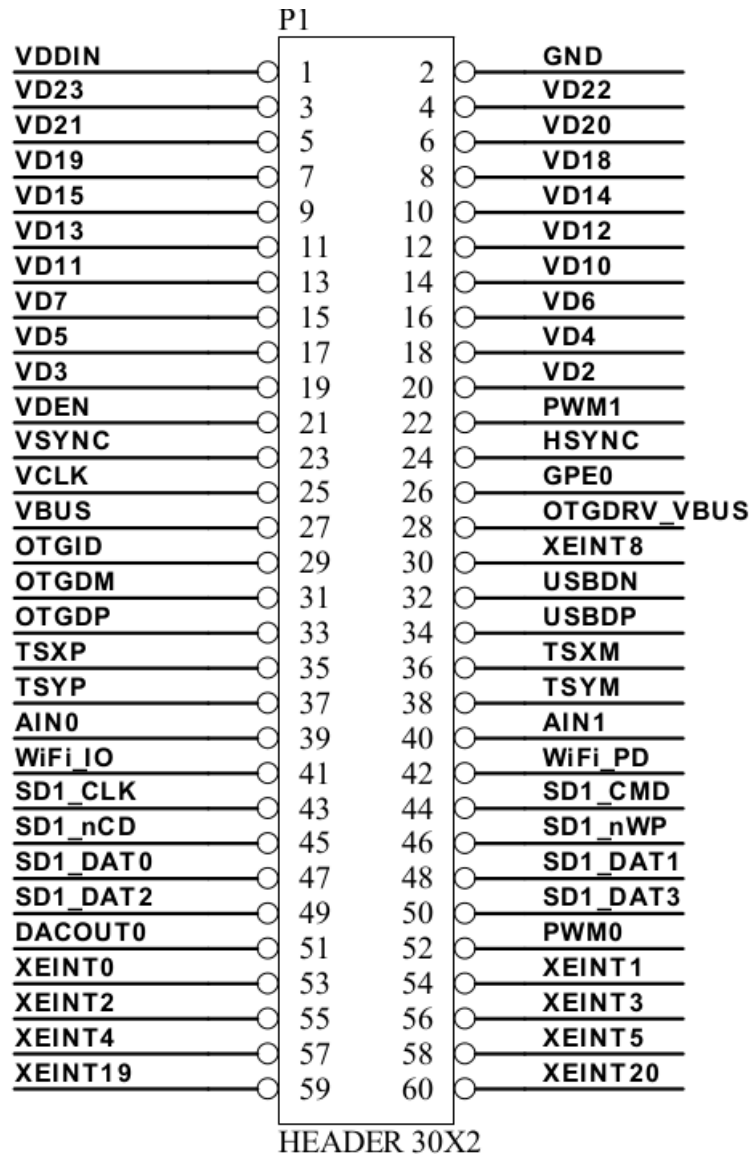
Then run the user application program

User space: user application program, compile and build the executable

Kernel space:  
Device driver example code  
from source distribution

# ARM11 6410 Connectors

Tiny6410-1107



# ARM11 6410 Connectors

## Tiny6410SDK-1111-PCB

Tiny6410A			
VDD5V	A1	A2	GND
VD23	A3	A4	VD22
VD21	A5	A6	VD20
VD19	A7	A8	VD18
VD15	A9	A10	VD14
VD13	A11	A12	VD12
VD11	A13	A14	VD10
VD7	A15	A16	VD6
VD5	A17	A18	VD4
VD3	A19	A20	VD2
VDEN	A21	A22	PWM1
VSYNCR	A23	A24	HSYNCR
VCLK	A25	A26	GPE0
VBUS	A27	A28	OTGDRV_VBUS
OTGID	A29	A30	EINT8
OTGDM	A31	A32	USBDN
OTGDP	A33	A34	USBDP
TSXP	A35	A36	TSXM
TSYP	A37	A38	TSYM
AIN0	A39	A40	AIN1
WiFi_IO	A41	A42	WiFi_PD
SD1_CLK	A43	A44	SD1_CMD
SD1_nCD	A45	A46	SD1_nWP
SD1_DAT0	A47	A48	SD1_DAT1
SD1_DAT2	A49	A50	SD1_DAT3
DACOUT0	A51	A52	PWM0
EINT0	A53	A54	EINT1
EINT2	A55	A56	EINT3
EINT4	A57	A58	EINT5
EINT19	A59	A60	EINT20
		TINY6410	

Tiny6410B			
OM3	B1	B2	OM4
M_nRESET	B3	B4	VDDRTC
RTSn1	B5	B6	CTSn1
TXD0	B7	B8	RXD0
TXD1	B9	B10	RXD1
TXD2	B11	B12	RXD2
TXD3	B13	B14	RXD3
SPIMOSI	B15	B16	SPIMISO
SPICLK	B17	B18	SPICS
I2CSCL	B19	B20	I2CSDA
SD0_CLK	B21	B22	SD0_CMD
SD0_nCD	B23	B24	SD0_nWP
SD0_DAT0	B25	B26	SD0_DAT1
SD0_DAT2	B27	B28	SD0_DAT3
AC97_BITCLK	B29	B30	AC97_RSTn
AC97_SYNC	B31	B32	AC97_SDO
AC97_SDI	B33	B34	EINT12
LADDR0	B35	B36	LADDR1
LADDR2	B37	B38	LADDR3
nCS1	B39	B40	EINT7
nWAIT	B41	B42	nRESET
LnWE	B43	B44	LnOE
LDATA0	B45	B46	LDATA1
LDATA2	B47	B48	LDATA3
LDATA4	B49	B50	LDATA5
LDATA6	B51	B52	LDATA7
LDATA8	B53	B54	LDATA9
LDATA10	B55	B56	LDATA11
LDATA12	B57	B58	LDATA13
LDATA14	B59	B60	LDATA15
		TINY6410	