

SCHEMATICS: SAMA5D3x-CM

SHEET #	SHEET NAME
1	MAIN
2	SODIM200
3	POWER SUPPLY
4	CPU-POWER SUPPLY
5	DDR2 INTERFACE
6	FI: NAND/NOR/SERIAL/I2C/1-WIRE
7	ETHERNET
8	USB/JTAG/LEDS
9	BUS INTERFACE

DATE:	DESCRIPTION	REVISION	STATUS
15.03.2012	SAMA5D3x-CM v2.0	2.0	OPEN
20.09.2012	SAMA5D3x-CM v2.0	2.0	CLOSE

Changes Rev2.0

- SoDIMM200 change:
* PB13 pin 144 with 0R DNP
* PB12 pin 146 with 0R populated
- VDD_CORE from 1.20V to 1.25V
- US1 - From TPS71712DCKR to BU12TD3WG-TR and attribute DNP
- Replaced Q2 with U15 SC189ASKTRT 1V0
- Q1 from BSS138W(SOT323) to BSS138(SOT23)
- C74 - from 47uF Tant to 22uF 0805
Added - C128 22uF 0805
C78 - from 47uF Tant to 22uF 0805
Added - C129 22uF 0805
C81 - from 47uF Tant to 22uF 0805
Added - C130 22uF 0805
C75 - from 47uF Tant to 22uF 0805
Added - C131 22uF 0805
C80 - from 47uF Tant to 22uF 0805
Added - C132 22uF 0805
C92 - from 10u Tant to 10u 0805
- R4 - Changed attribute Note from DNP to "empty"
- Y1 changed to CM200C-32.768KDFZ-UT
- U6 changed to EN29GL128H-70BAIP
- U8 changed to HY27UF082G2B-TPCB

Mechanical

Z6 Drill No plated 0.85mm	Z11 Passer 0.7 mm
Z7 Drill No plated 0.85mm	Z12 Passer 0.7 mm
Z5 Drill No plated 1.65mm	Z13 Passer 0.7 mm
Z8 Drill No plated 1.65mm	Z14 Passer 0.7 mm
Z9 Drill No plated 1.65mm	
Z10 Drill No plated 1.65mm	
Z1 Drill No plated 1.8 mm	Z3 Drill No plated 3.2 mm
Z2 Drill No plated 1.8 mm	Z4 Drill No plated 3.2 mm

Note: To each Signal Reference have one or more digits.
These are the numbers of sheets
to which is connected this signal.

PROJECT TITLE		SAMA5D3x-CM		SHEET NO		1 OF 9	
SHEET TITLE		MAIN		DROWN			
FILE	REV	DATE	DESCRIPTION FILE	ISSUED			
A4		4.12.2012					



PROJECT TITLE				SAMA5D3x-CM			
SHEET TITLE				SODIM200			
FILE	SAMA5D3x-CM v2.0f.scm			SHEET NO	2 OF 9		
SIZE	REV	DATE	DESCRIPTION FILE	DROWN			
A4		4.12.2012		ISSUED			



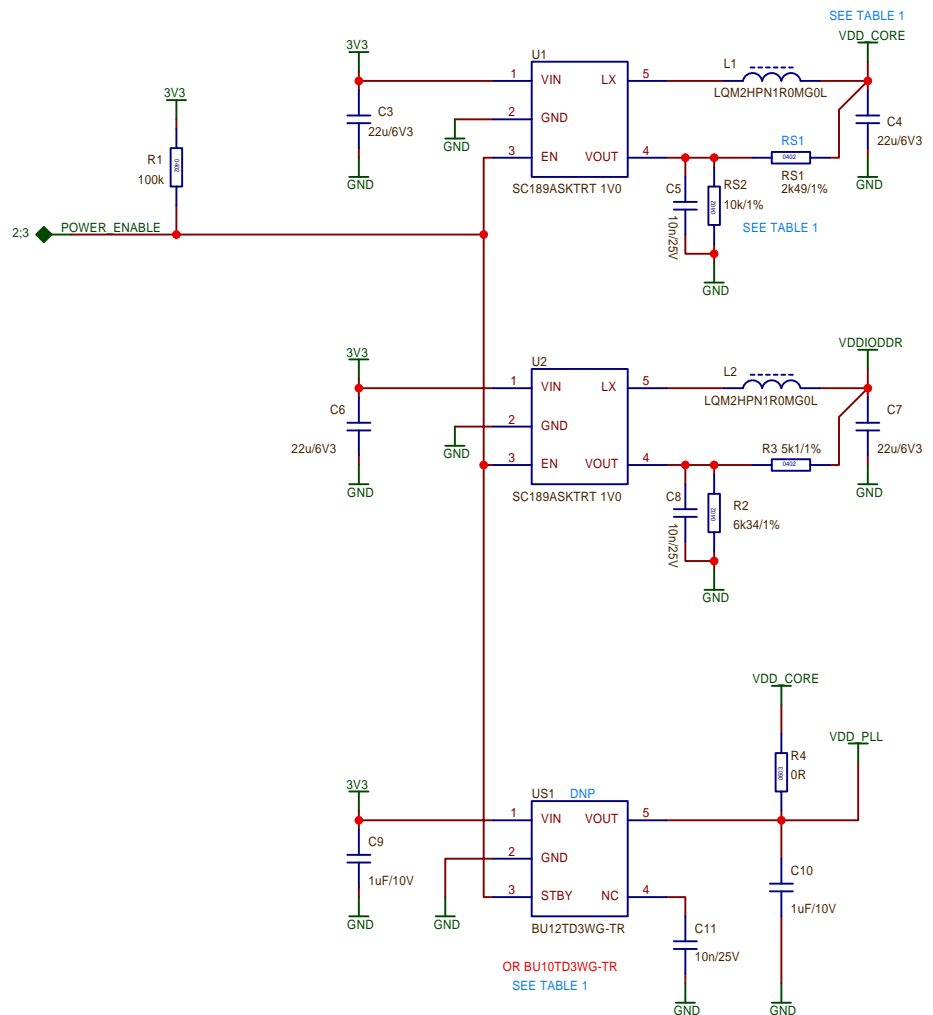
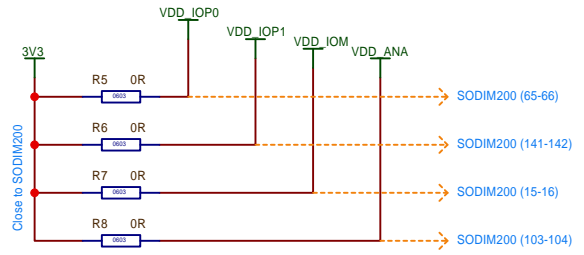
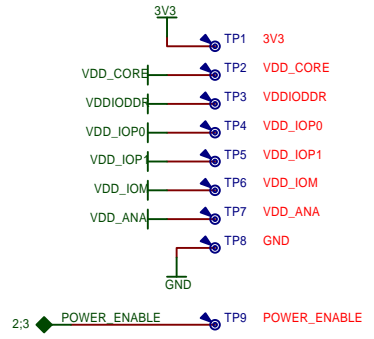
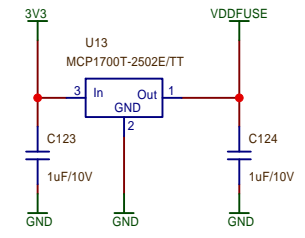


TABLE 1 $RS1=(V_{out}-1)\times RS2$

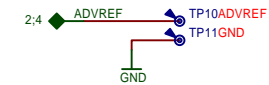
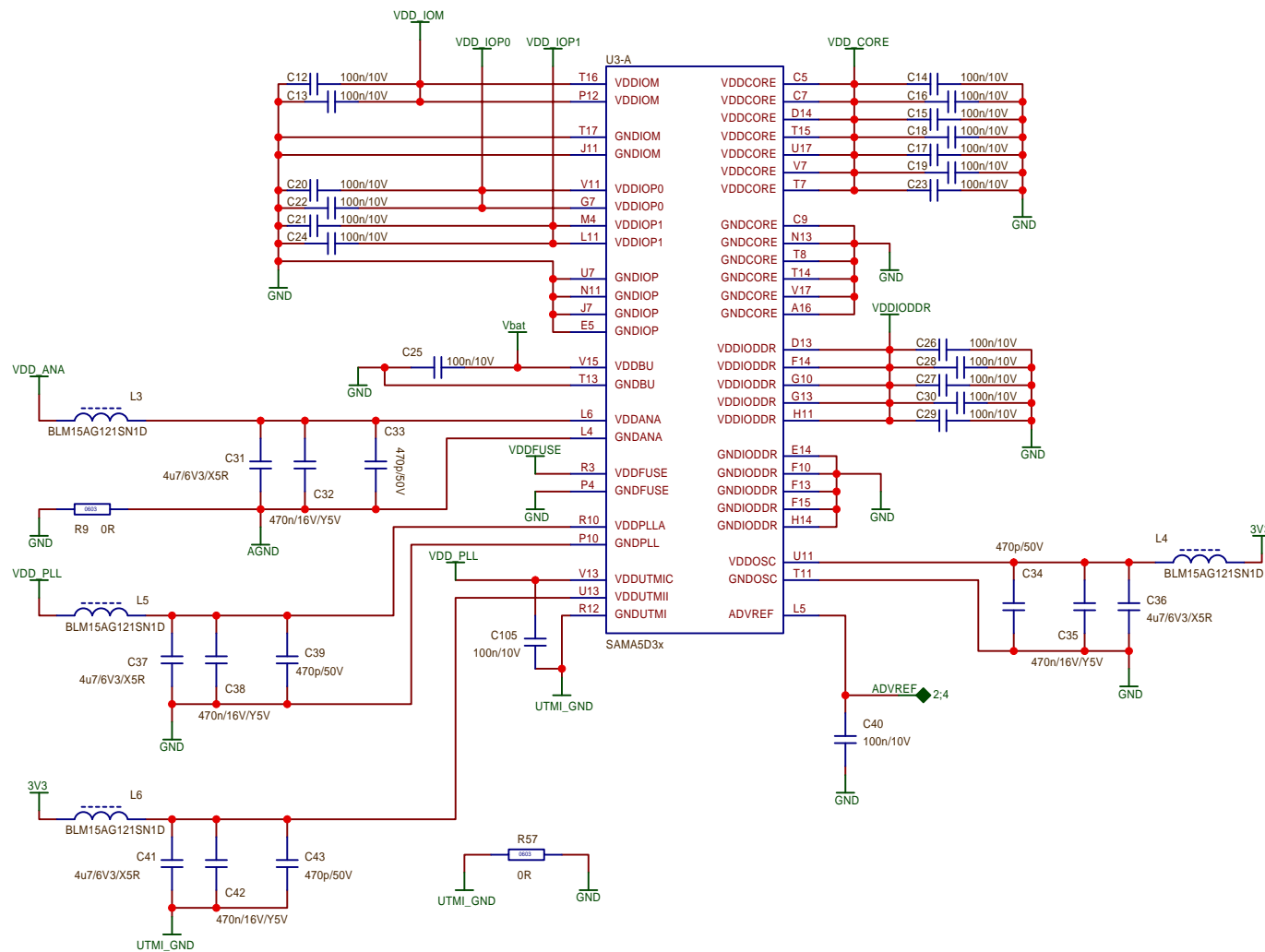
VDD_CORE	1.0V	1.2V	1.25V	
RS1	0R (JUMP)	2kOhm 1%	2k5ohm 1%	2k49ohm 1%
RS2	DNP	10kOhm 1%	10kOhm 1%	
US1	BU10TD3WG-TR	BU12TD3WG-TR		



GND pins are provided and should be connected as shortly as possible to the system ground plane.

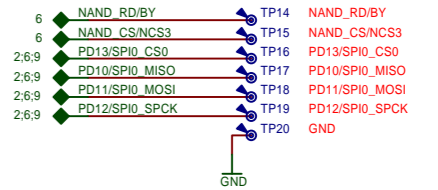
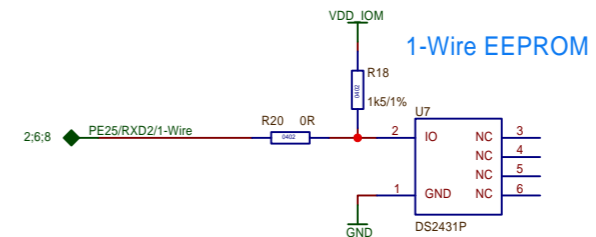
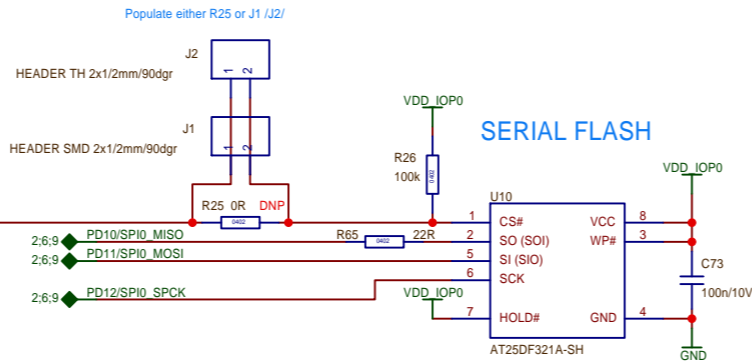
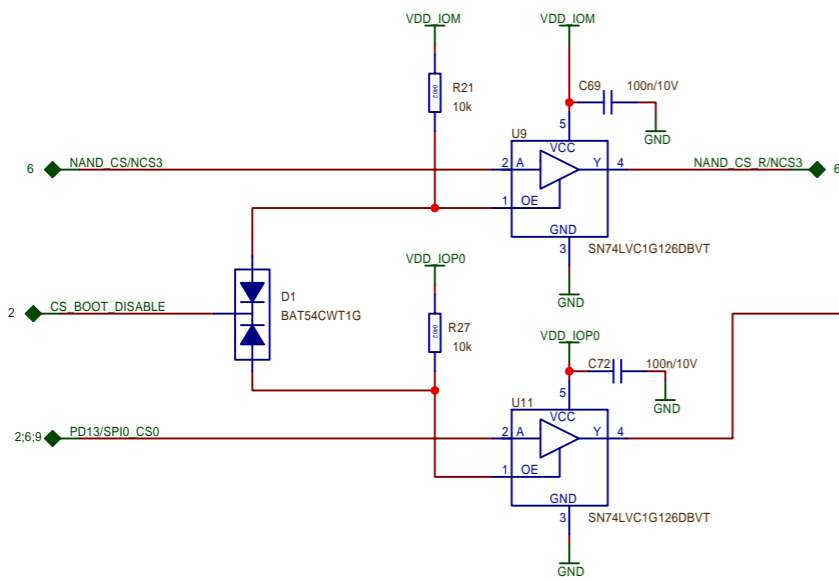
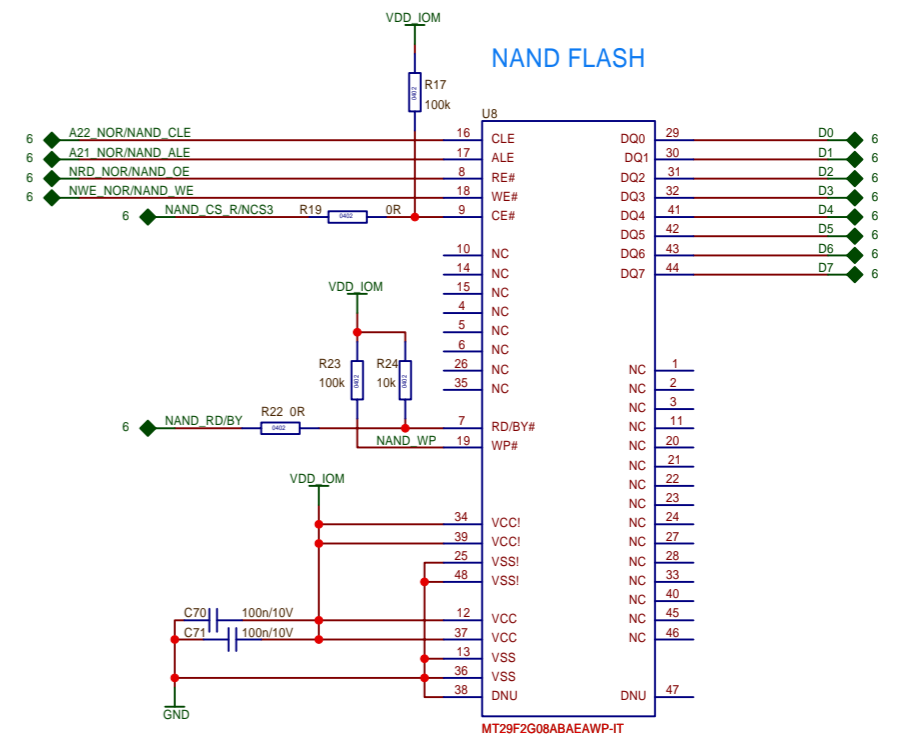
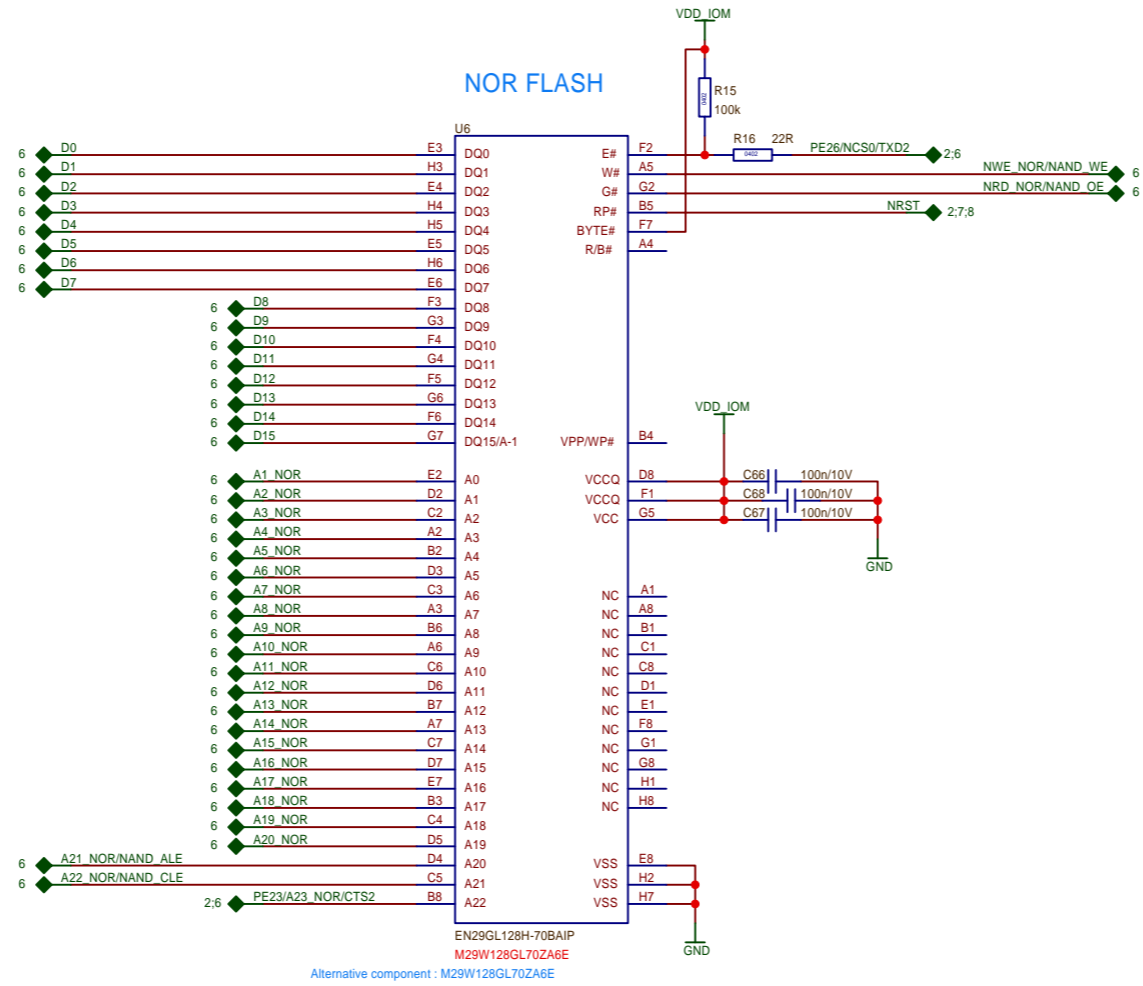
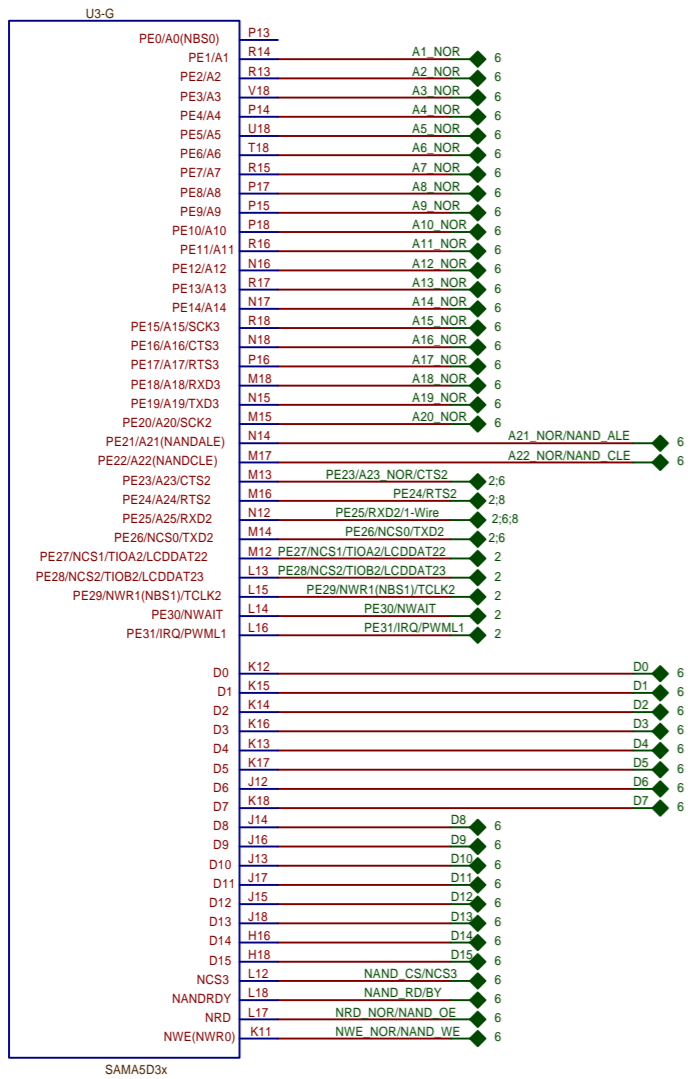
PROJECT TITLE		SAMA5D3x-CM		SHEET NO		3 OF 9	
SHEET TITLE		POWER SUPPLY		DROWN			
FILE	SAMA5D3x-CM v2.0f.scm			ISSUED			
SIZE	REV	DATE	DESCRIPTION FILE				
A4		4.12.2012					

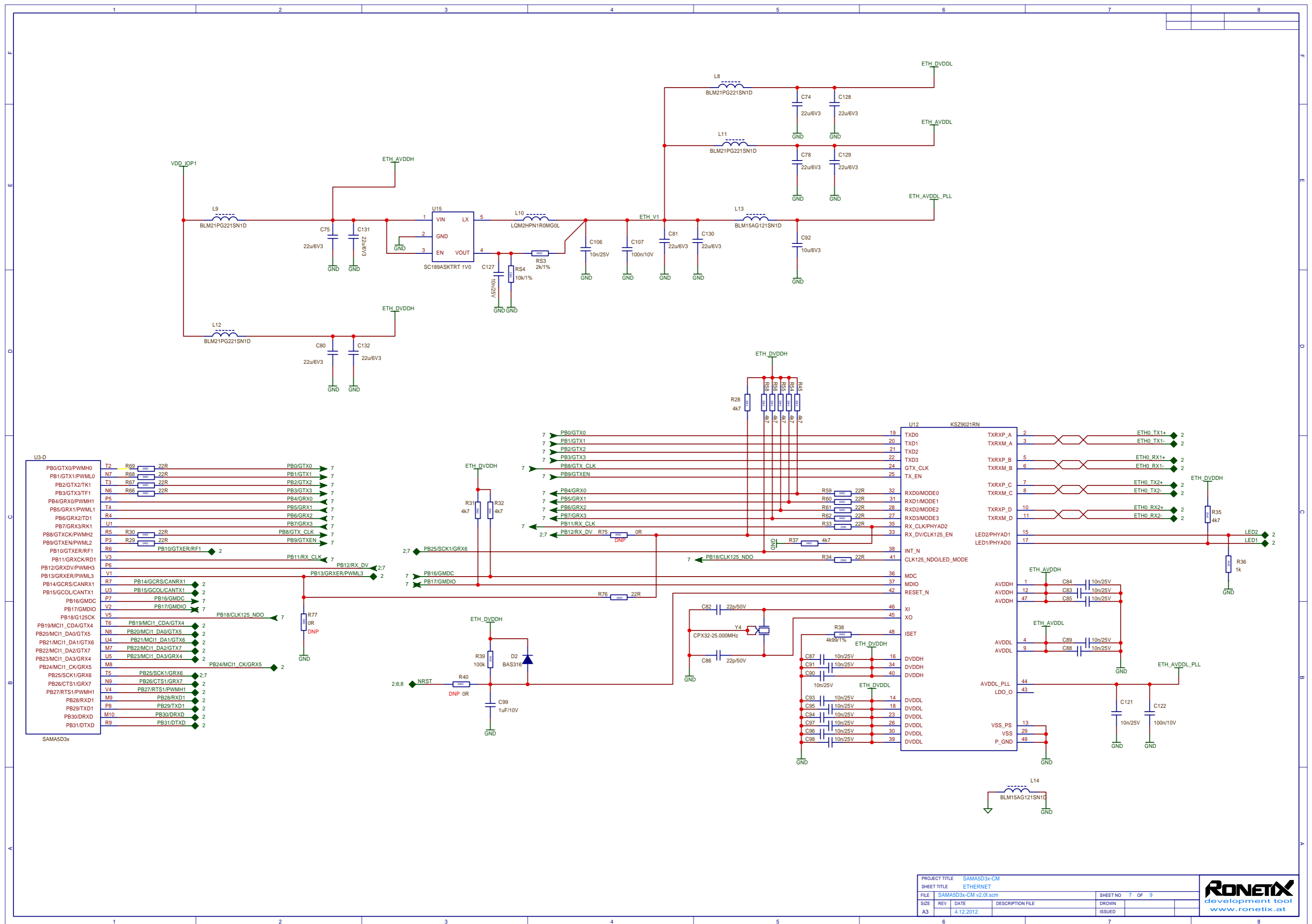




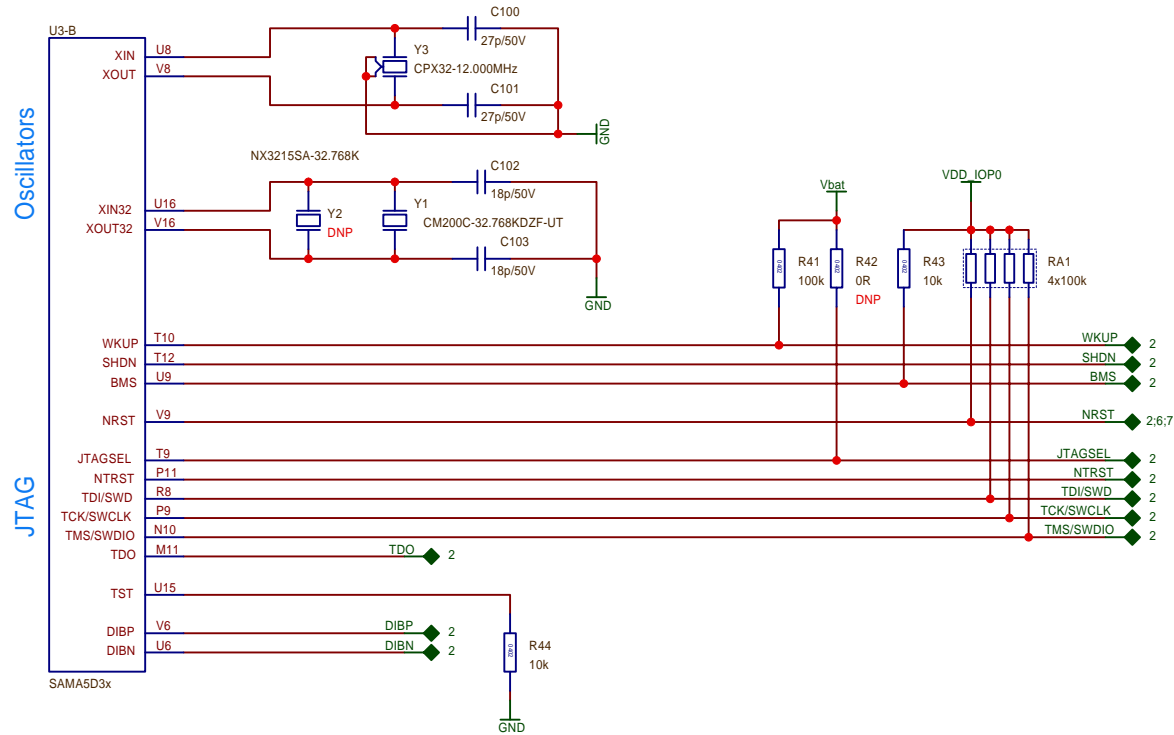
PROJECT TITLE		SAMA5D3x-CM		SHEET NO		4 OF 9	
SHEET TITLE		CPU-POWER SUPPLY		DRAWN			
FILE	SAMA5D3x-CM v2.0f.scm			ISSUED			
SIZE	REV	DATE	DESCRIPTION FILE				
A4		4.12.2012					



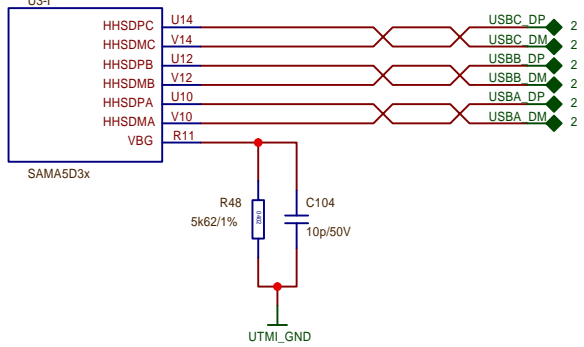




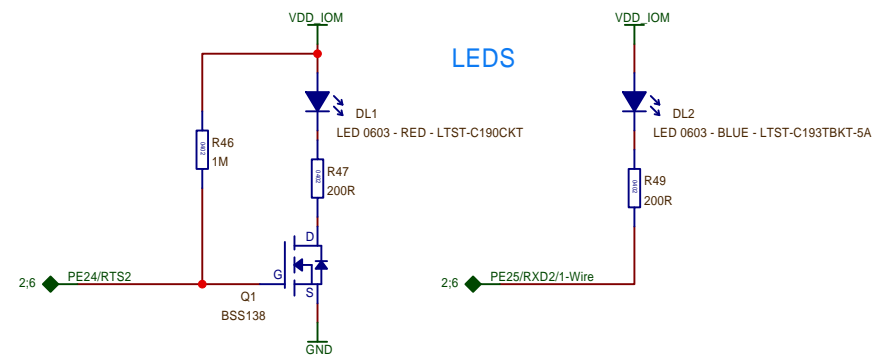
SOFT MODEM



USB



LEDS



PROJECT TITLE		SAMA5D3x-CM		SHEET NO		8 OF 9	
SHEET TITLE		USB/JTAG/LEDS		DRAWN			
FILE	SAMA5D3x-CM v2.0f.scm	DATE	4.12.2012	ISSUED			
SIZE	A4	DESCRIPTION FILE					



U3-C SAMA5D3x			
PA0/LCDDAT0	E3	PA0/LCDDAT0	2
PA1/LCDDAT1	F5	PA1/LCDDAT1	2
PA2/LCDDAT2	D2	PA2/LCDDAT2	2
PA3/LCDDAT3	F4	PA3/LCDDAT3	2
PA4/LCDDAT4	D1	PA4/LCDDAT4	2
PA5/LCDDAT5	J10	PA5/LCDDAT5	2
PA6/LCDDAT6	G4	PA6/LCDDAT6	2
PA7/LCDDAT7	J9	PA7/LCDDAT7	2
PA8/LCDDAT8	F3	PA8/LCDDAT8	2
PA9/LCDDAT9	J8	PA9/LCDDAT9	2
PA10/LCDDAT10	E2	PA10/LCDDAT10	2
PA11/LCDDAT11	K8	PA11/LCDDAT11	2
PA12/LCDDAT12	F2	PA12/LCDDAT12	2
PA13/LCDDAT13	G6	PA13/LCDDAT13	2
PA14/LCDDAT14	E1	PA14/LCDDAT14	2
PA15/LCDDAT15	H5	PA15/LCDDAT15	2
PA16/LCDDAT16/ISI_D0	H3	PA16/LCDDAT16/ISI_D0	2
PA17/LCDDAT17/ISI_D1	H6	PA17/LCDDAT17/ISI_D1	2
PA18/LCDDAT18/TWD2/ISI_D2	H4	PA18/LCDDAT18/TWD2/ISI_D2	2
PA19/LCDDAT19/TWK2/ISI_D3	H7	PA19/LCDDAT19/TWK2/ISI_D3	2
PA20/LCDDAT20/PWMH0	H2	PA20/LCDDAT20/PWMH0	2
PA21/LCDDAT21/PWML0/ISI_D5	J6	PA21/LCDDAT21/PWML0/ISI_D5	2
PA22/LCDDAT22/PWMH1	G2	PA22/LCDDAT22/PWMH1	2
PA23/LCDDAT23/PWML1/ISI_D7	J5	PA23/LCDDAT23/PWML1/ISI_D7	2
PA24/LCDPWM	F1	PA24/LCDPWM	2
PA25/LCDDISP	J4	PA25/LCDDISP	2
PA26/LCDVSYNC	G3	PA26/LCDVSYNC	2
PA27/LCDHSYNC	J3	PA27/LCDHSYNC	2
PA28/LCDPCK	G1	PA28/LCDPCK	2
PA29/LCDDEN	K4	PA29/LCDDEN	2
PA30/TWD0/URXD1/ISI_VSYNC	H1	PA30/TWD0/URXD1/ISI_VSYNC	2
PA31/TWCK0/UTXD1/ISI_HSYNC	K3	PA31/TWCK0/UTXD1/ISI_HSYNC	2

U3-F SAMA5D3x			
PD0/MCIO_CDA	K5	PD0/MCIO_CDA	2
PD1/MCIO_DA0	P1	PD1/MCIO_DA0	2
PD2/MCIO_DA1	K6	PD2/MCIO_DA1	2
PD3/MCIO_DA2	R1	PD3/MCIO_DA2	2
PD4/MCIO_DA3	L7	PD4/MCIO_DA3	2
PD5/MCIO_DA4/TIOA0/PWMH2	P2	PD5/MCIO_DA4/TIOA0/PWMH2	2
PD6/MCIO_DA5/TIOB0/PWML2	L8	PD6/MCIO_DA5/TIOB0/PWML2	2
PD7/MCIO_DA6/TCLK0/PWMH3	R2	PD7/MCIO_DA6/TCLK0/PWMH3	2
PD8/MCIO_DA7/PWML3	K7	PD8/MCIO_DA7/PWML3	2
PD9/MCIO_CK	U2	PD9/MCIO_CK	2
PD10/SPI0_MISO	K9	PD10/SPI0_MISO	2;6
PD11/SPI0_MOSI	M5 R63 22R	PD11/SPI0_MOSI	2;6
PD12/SPI0_SPCK	K10 R64 22R	PD12/SPI0_SPCK	2;6
PD13/SPI0_NPCS0	N4	PD13/SPI0_CS0	2;6
PD14/SCK0/SPI0_NPCS1/CANRX0	L9	PD14/SCK0/SPI0_NPCS1/CANRX0	2
PD15/CTS0/SPI0_NPCS2/CANTX0	N3	PD15/CTS0/SPI0_NPCS2/CANTX0	2
PD16/RTS0/SPI0_NPCS3/PWMF13	L10	PD16/RTS0/SPI0_NPCS3/PWMF13	2
PD17/RXD0	N5	PD17/RXD0	2
PD18/TXD0	M6	PD18/TXD0	2
PD19/ADTRG	T1	PD19/ADTRG	2
PD20/AD0	N2	PD20/AD0	2
PD21/AD1	M3	PD21/AD1	2
PD22/AD2	M2	PD22/AD2	2
PD23/AD3	L3	PD23/AD3	2
PD24/AD4	M1	PD24/AD4	2
PD25/AD5	N1	PD25/AD5	2
PD26/AD6	L1	PD26/AD6	2
PD27/AD7	L2	PD27/AD7	2
PD28/AD8	K1	PD28/AD8	2
PD29/AD9	K2	PD29/AD9	2
PD30/AD10	J1	PD30/AD10	2
PD31/AD11	J2	PD31/AD11	2

U3-E SAMA5D3x			
PC0/ETX0/TIOA3	D8	PC0/ETX0/TIOA3	2
PC1/ETX1/TIOB3	A4	PC1/ETX1/TIOB3	2
PC2/ERX0/TCLK3	E8	PC2/ERX0/TCLK3	2
PC3/ERX1/TIOA4	A3	PC3/ERX1/TIOA4	2
PC4/ETXEN/TIOB4	A2	PC4/ETXEN/TIOB4	2
PC5/ECRS0/TCLK4	F8	PC5/ECRS0/TCLK4	2
PC6/ERXER/TIOA5	B3	PC6/ERXER/TIOA5	2
PC7/EREFCK/TIOB5	G8	PC7/EREFCK/TIOB5	2
PC8/EMDC/TCLK5	B4	PC8/EMDC/TCLK5	2
PC9/EMDIO	F7	PC9/EMDIO	2
PC10/MCI2_CDA/LCDDAT20	A1	PC10/MCI2_CDA/LCDDAT20	2
PC11/MCI2_DA0/LCDDAT19	D7	PC11/MCI2_DA0/LCDDAT19	2
PC12/MCI2_DA1/TIOA1/LCDDAT18	C6	PC12/MCI2_DA1/TIOA1/LCDDAT18	2
PC13/MCI2_DA2/TIOB1/LCDDAT17	E7	PC13/MCI2_DA2/TIOB1/LCDDAT17	2
PC14/MCI2_DA3/TCLK1/LCDDAT16	B2	PC14/MCI2_DA3/TCLK1/LCDDAT16	2
PC15/MCI2_CK/PCK2/LCDDAT21	F6	PC15/MCI2_CK/PCK2/LCDDAT21	2
PC16/TK0	B1	PC16/TK0	2
PC17/TF0	E6	PC17/TF0	2
PC18/TD0	C3	PC18/TD0	2
PC19/RK0	D6	PC19/RK0	2
PC20/RF0	C4	PC20/RF0	2
PC21/RD0	D5	PC21/RD0	2
PC22/SPI1_MISO	C2	PC22/SPI1_MISO	2
PC23/SPI1_MOSI	G9	PC23/SPI1_MOSI	2
PC24/SPI1_SPCK	C1	PC24/SPI1_SPCK	2
PC25/SPI1_NPCS0	H10	PC25/SPI1_NPCS0	2
PC26/SPI1_NPCS1/TWD1/ISI_D11	H9	PC26/SPI1_NPCS1/TWD1/ISI_D11	2
PC27/SPI1_NPCS2/TWK1/ISI_D10	D4	PC27/SPI1_NPCS2/TWK1/ISI_D10	2
PC28/SPI1_NPCS3/PWMF10/ISI_D9	H8	PC28/SPI1_NPCS3/PWMF10/ISI_D9	2
PC29/URXD0/PWMF12/ISI_D8	G5	PC29/URXD0/PWMF12/ISI_D8	2
PC30/UTXD0/ISI_PCK	D3	PC30/UTXD0/ISI_PCK	2
PC31/FIQ/PWMF11	E4	PC31/FIQ/PWMF11	2