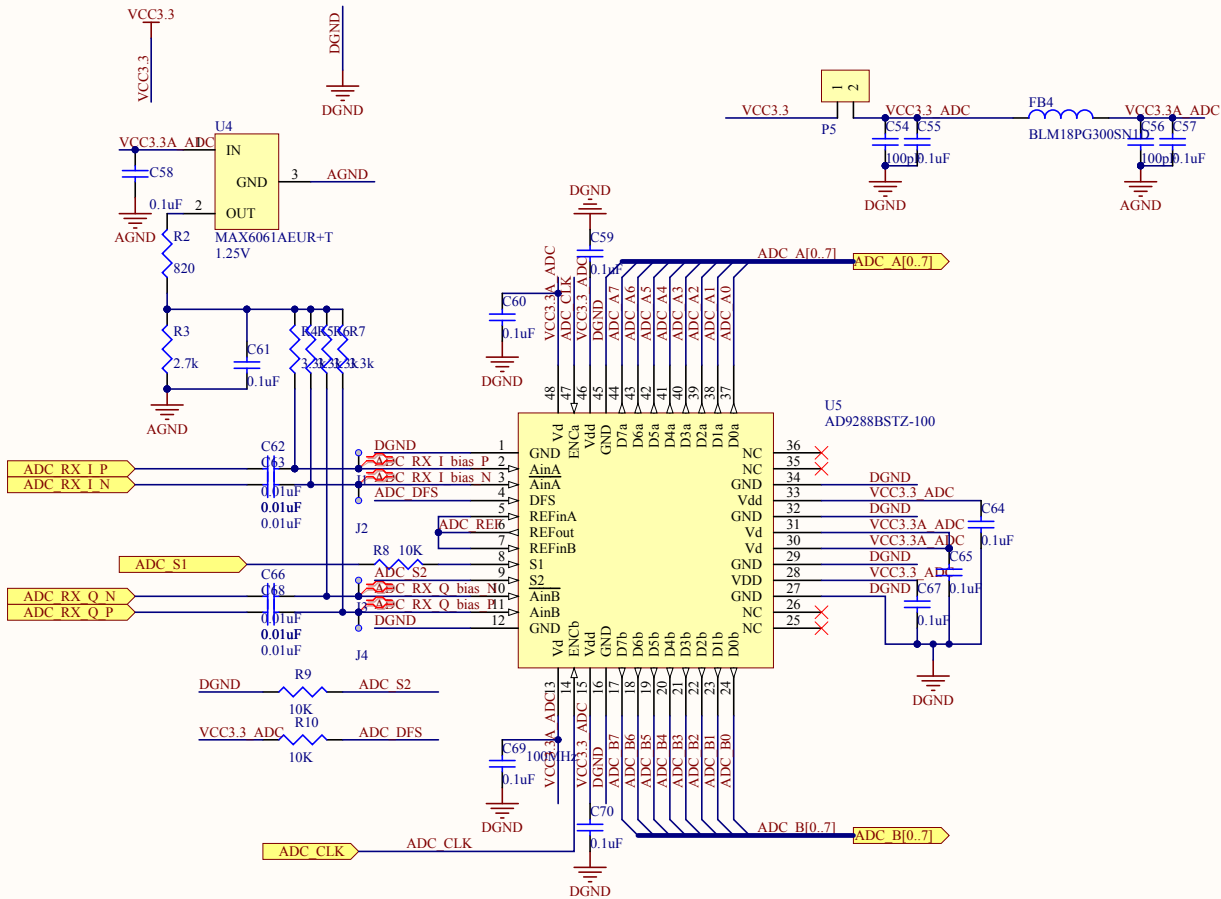
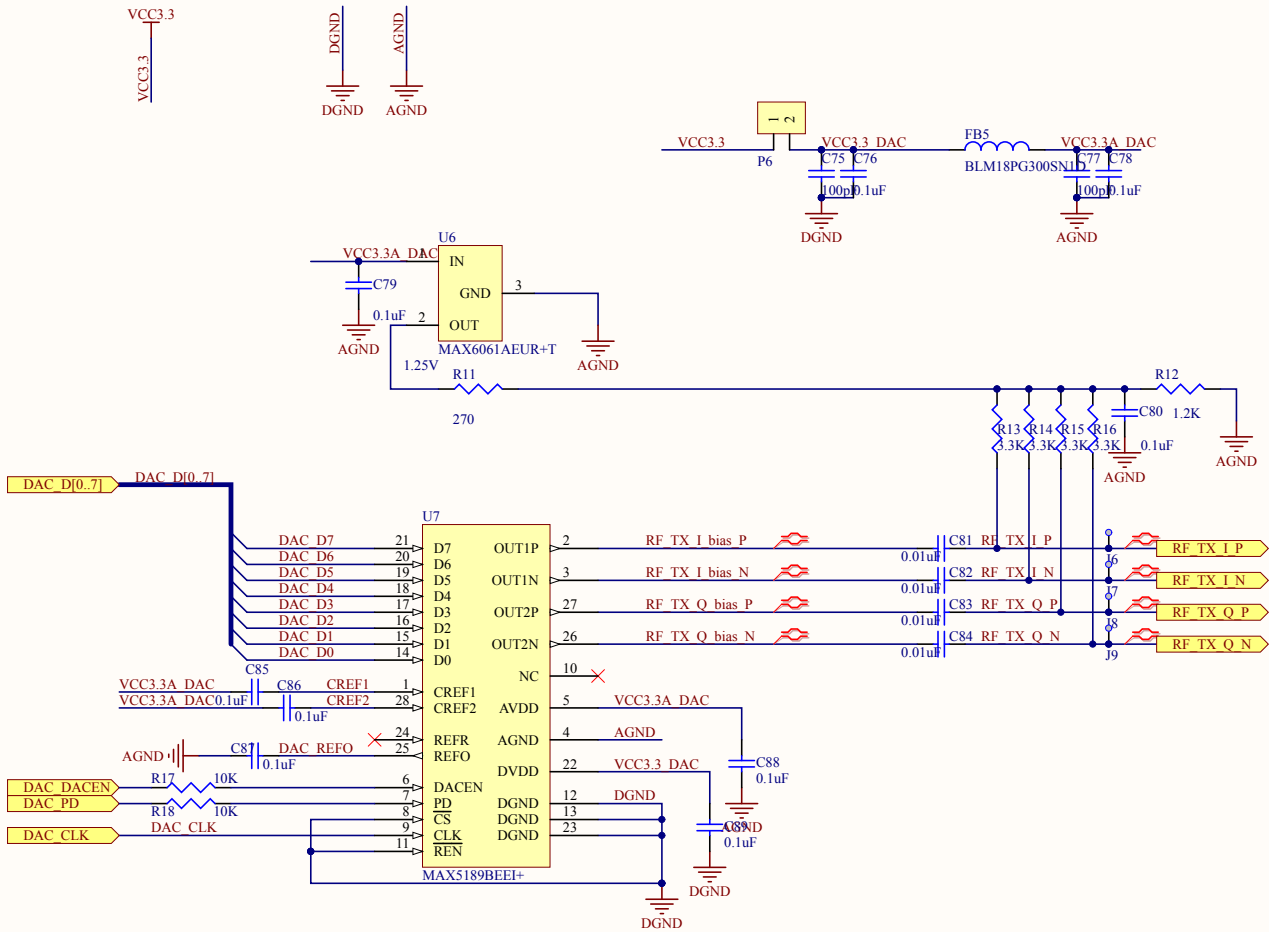


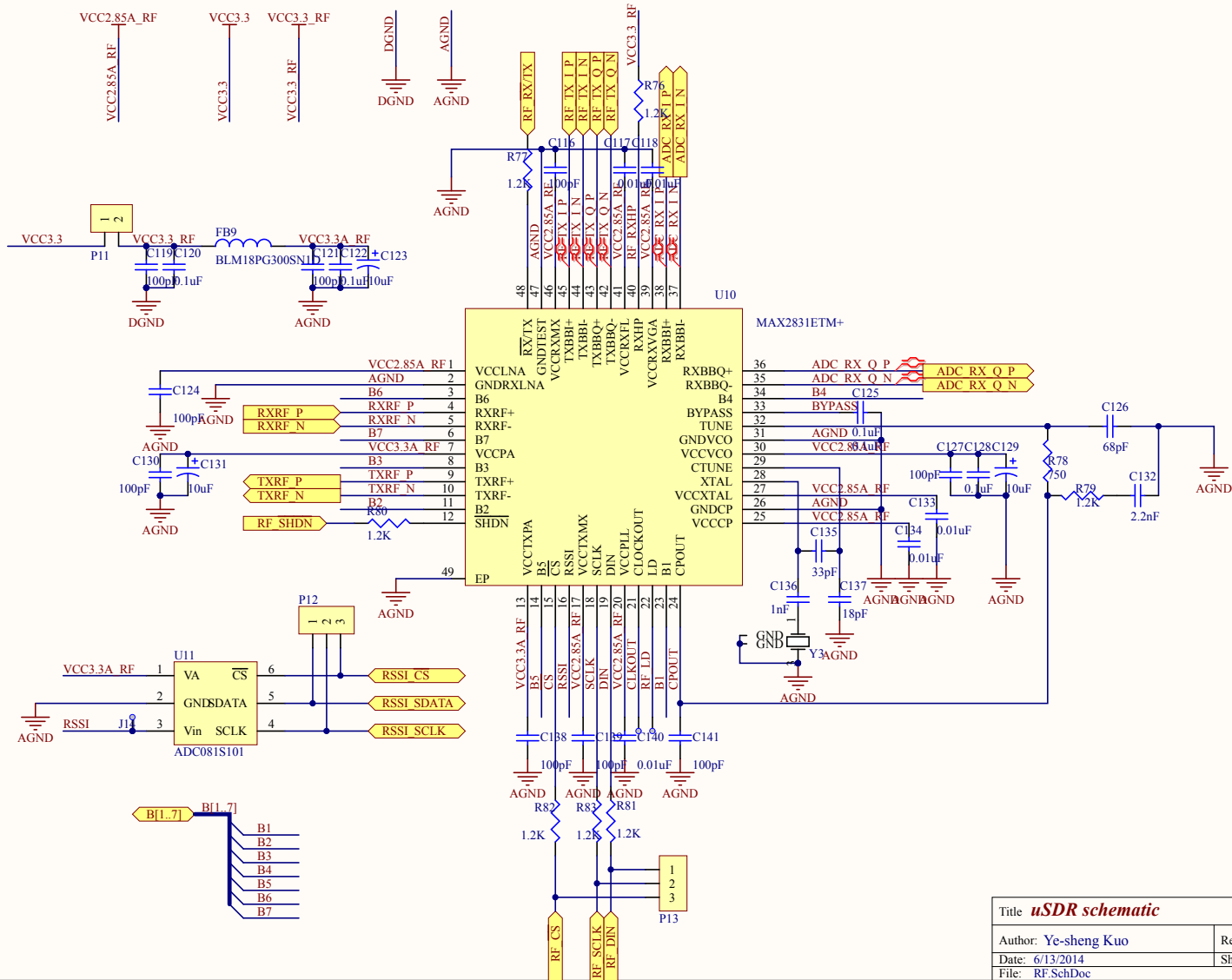
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Author: Ye-sheng Kuo	Revision: 2.0	
Date: 6/13/2014	Sheet 2 of 16	
File: PWR_Gen.SchDoc		



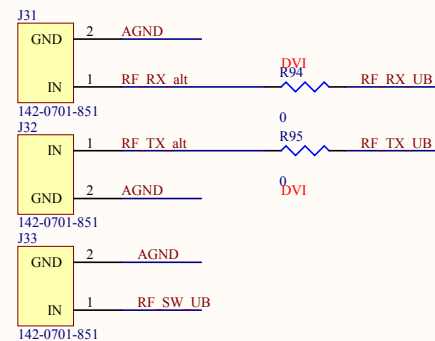
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Author: Ye-sheng Kuo	Revision 2.0	
Date: 6/13/2014	Sheet 3 of 16	
File: ADC.SchDoc		



Title uSDR schematic		Cannot open file C:\Users\samk ... University of Michigan
Author: Ye-sheng Kuo	Revision 2.0	
Date: 6/13/2014	Sheet 4 of 16	
File: DAC.SchDoc		



Title uSDR schematic		Cannot open file C:\Users\samk ... University of Michigan
Author: Ye-sheng Kuo	Revision: 2.0	
Date: 6/13/2014	Sheet 5 of 16	
File: RF SchDoc		



Title: <i>uSDR schematic</i>		Cannot open file C:\Users\samk \OneDrive\UT \uSDR schematic.pdf
Author: Ye-sheng Kuo	Revision: 2.0	
Date: 6/13/2014	Sheet 6 of 16	
File: RF_2.SchDoc		

A

A

B

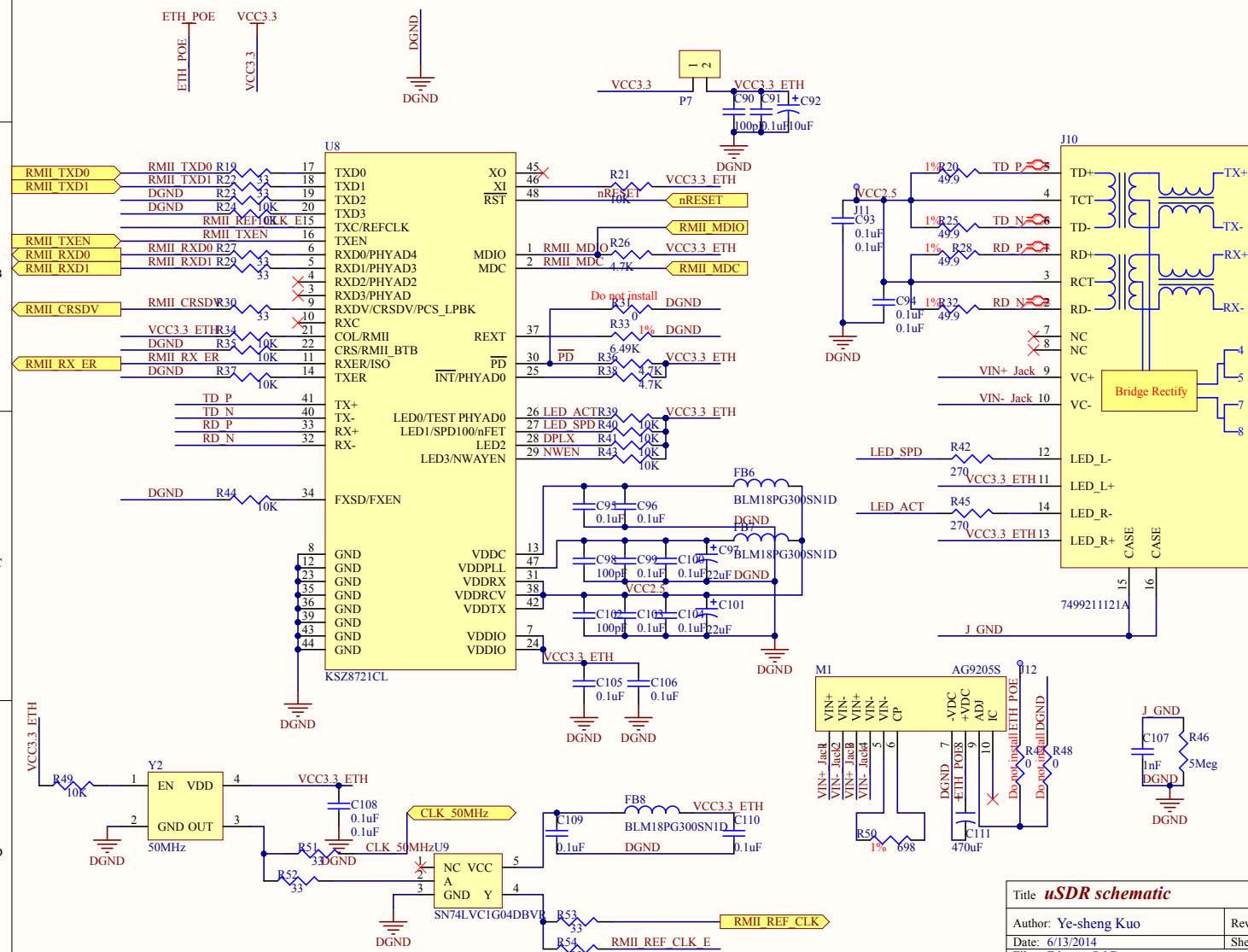
B

C

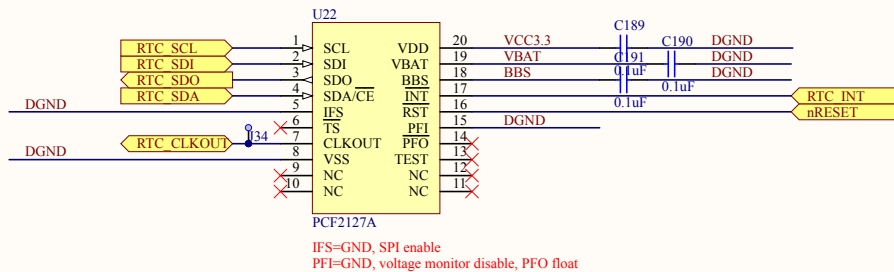
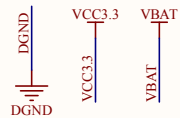
C

D

D

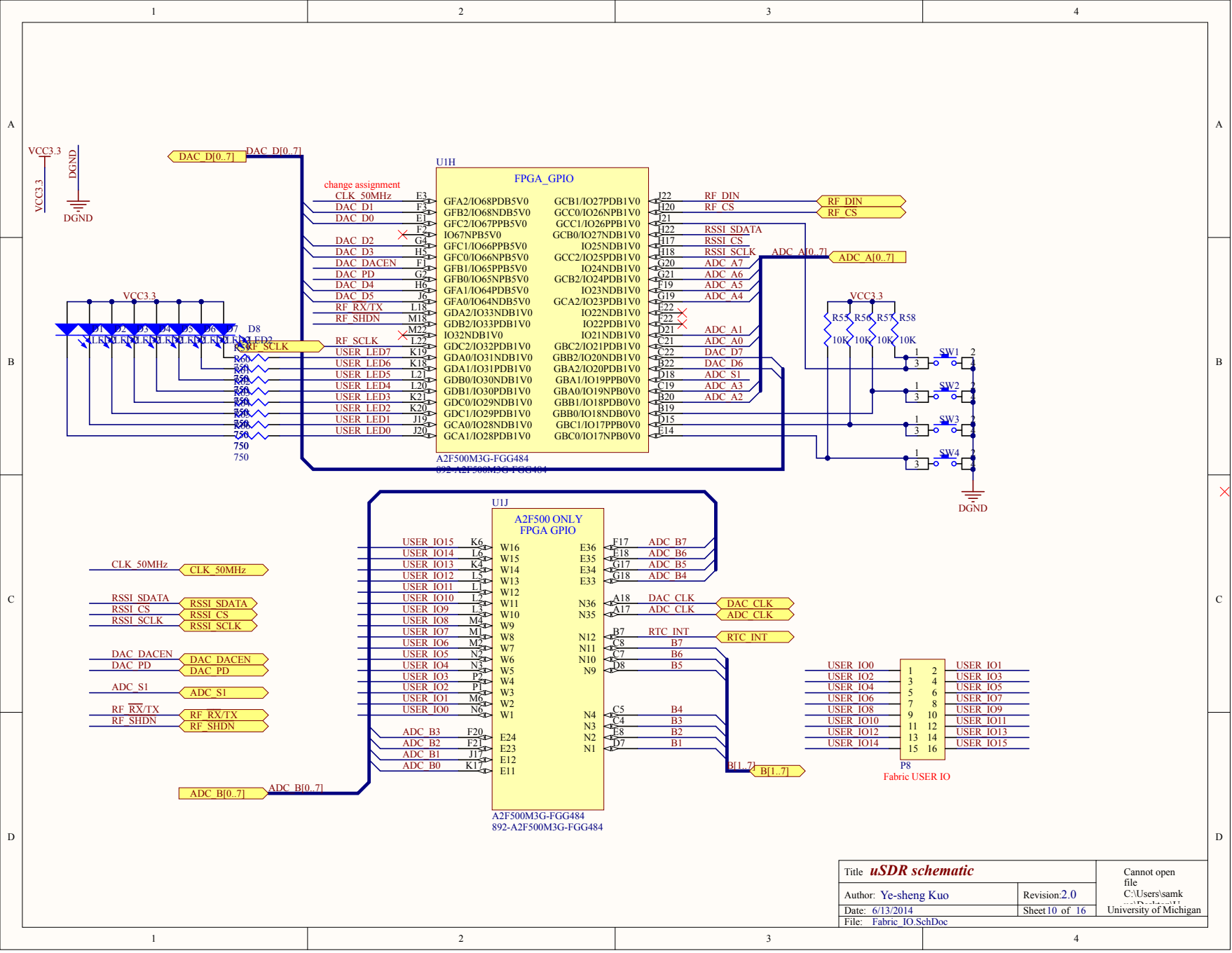


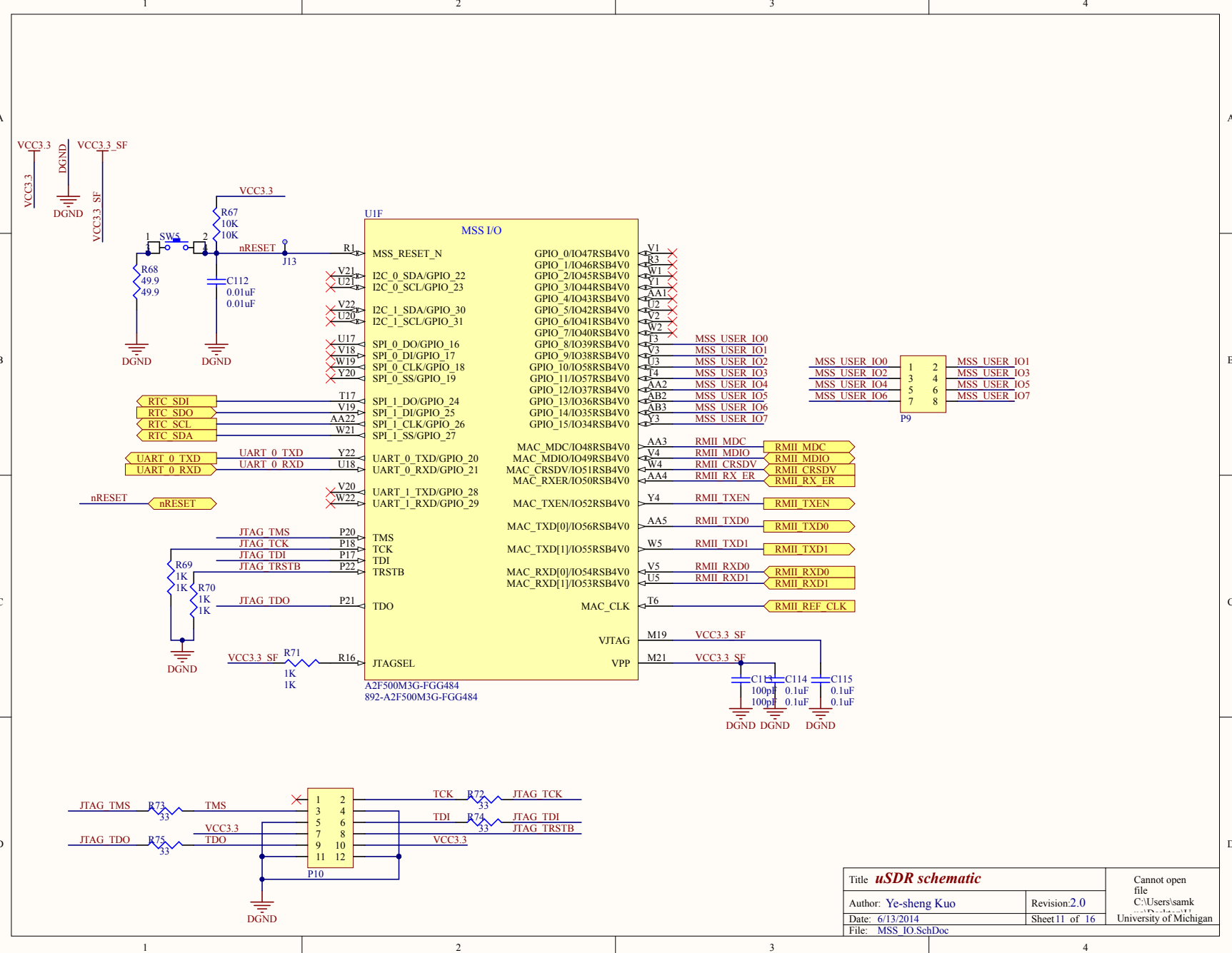
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Author: Ye-sheng Kuo	Revision: 2.0	
Date: 6/13/2014	Sheet 7 of 16	
File: Ethernet SchDoc		

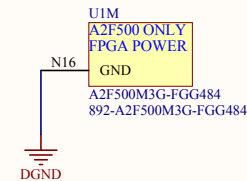
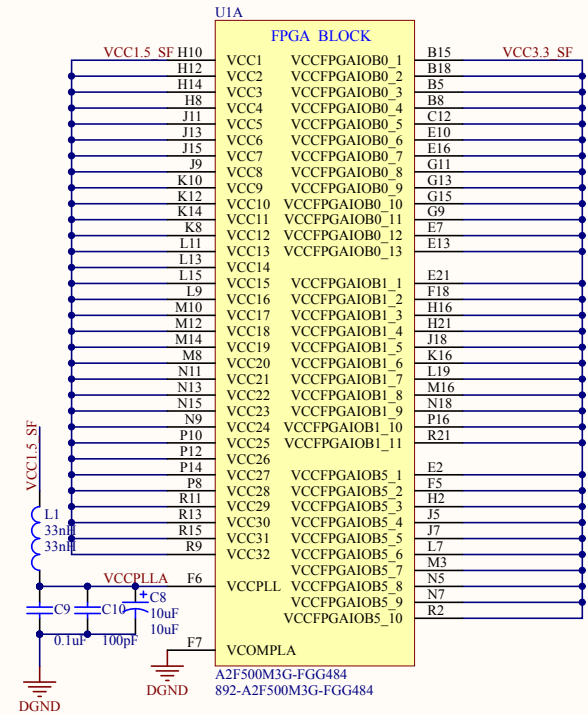
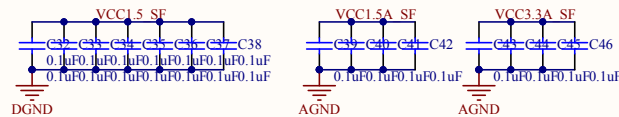
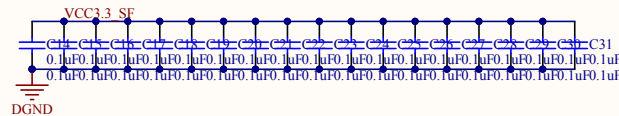
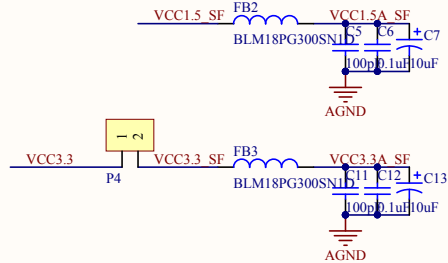
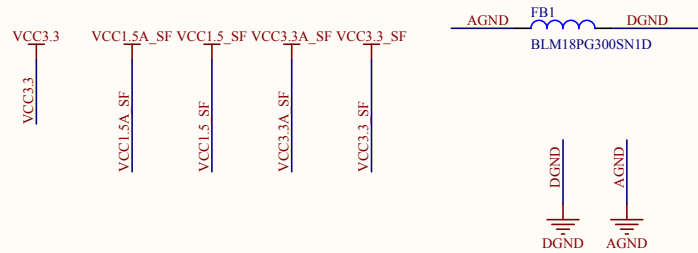


PCF2127A
IFS=GND, SPI enable
PFI=GND, voltage monitor disable, PFO float

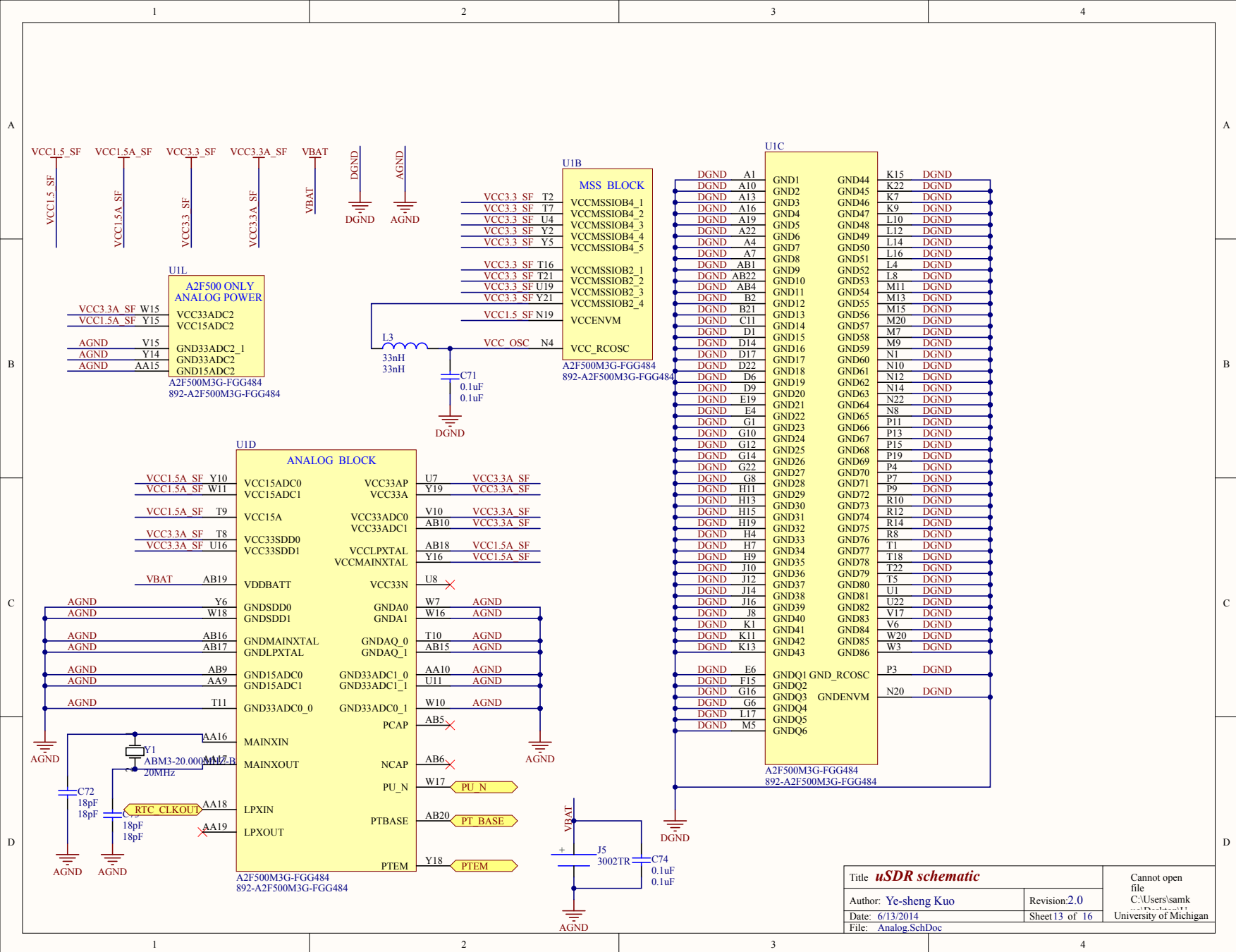
Title uSDR schematic		Cannot open file C:\Users\samk University of Michigan
Author: Ye-sheng Kuo	Revision 2.0	
Date: 6/13/2014	Sheet 9 of 16	
File: RTC.SchDoc		





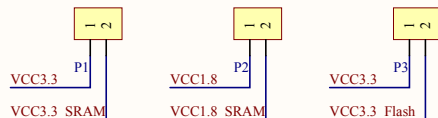
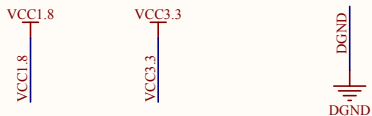


Title <i>uSDR schematic</i>		Cannot open file C:\Users\samk ... University of Michigan
Author: Ye-sheng Kuo	Revision: 2.0	
Date: 6/13/2014	Sheet 12 of 16	
File: Digital PWR.SchDoc		



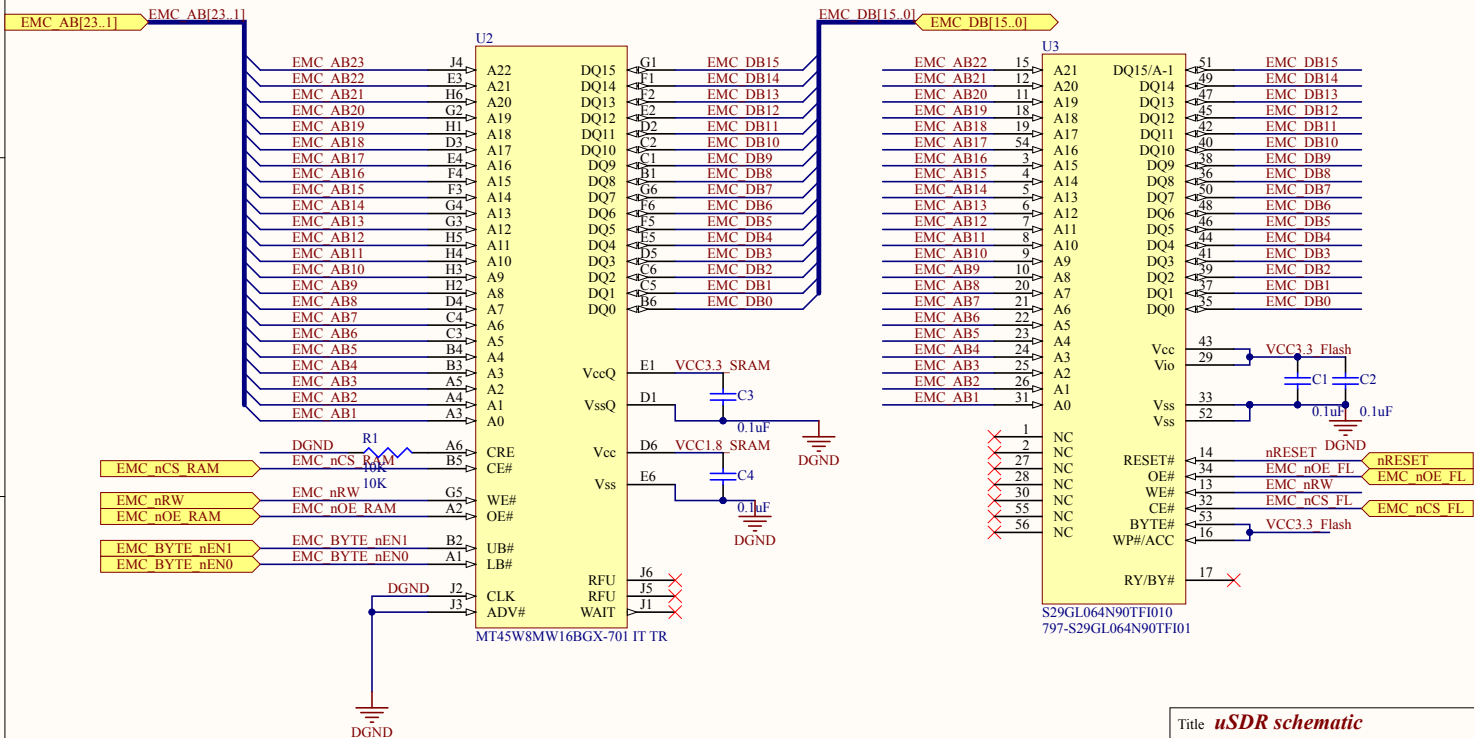
A

A



B

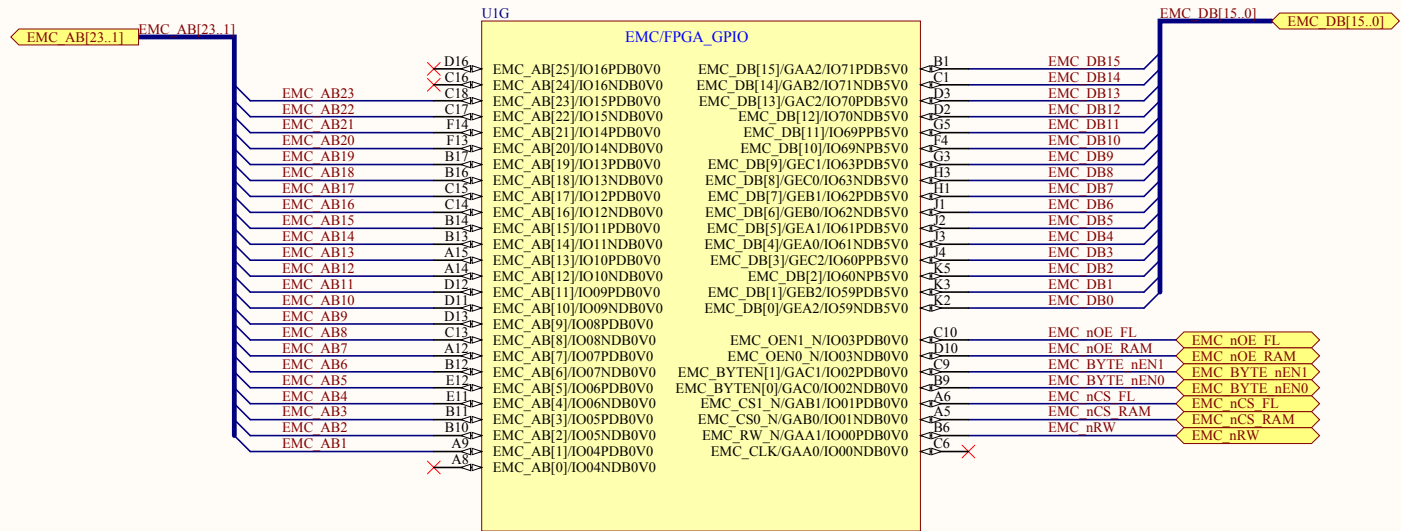
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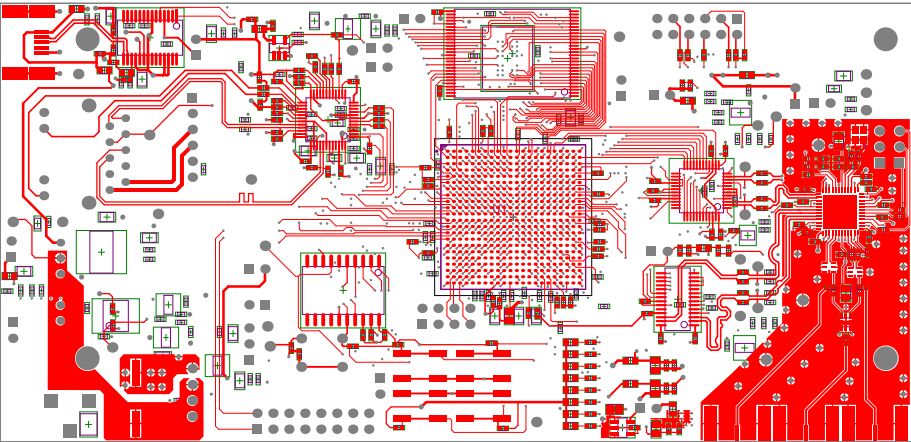
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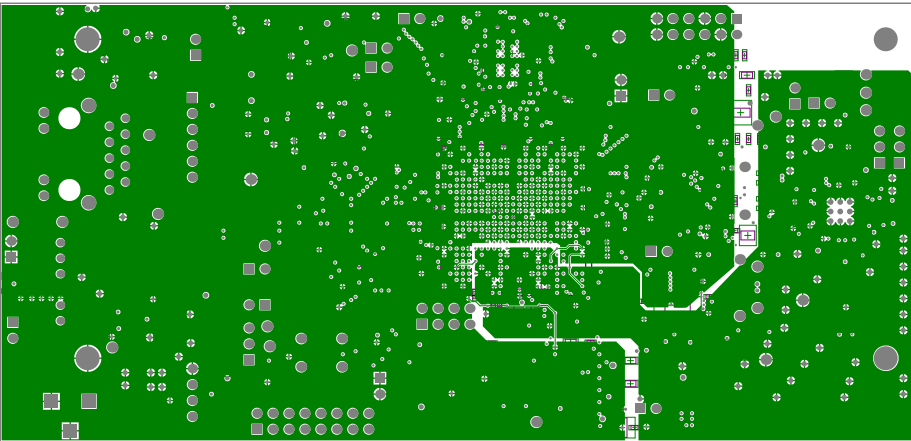
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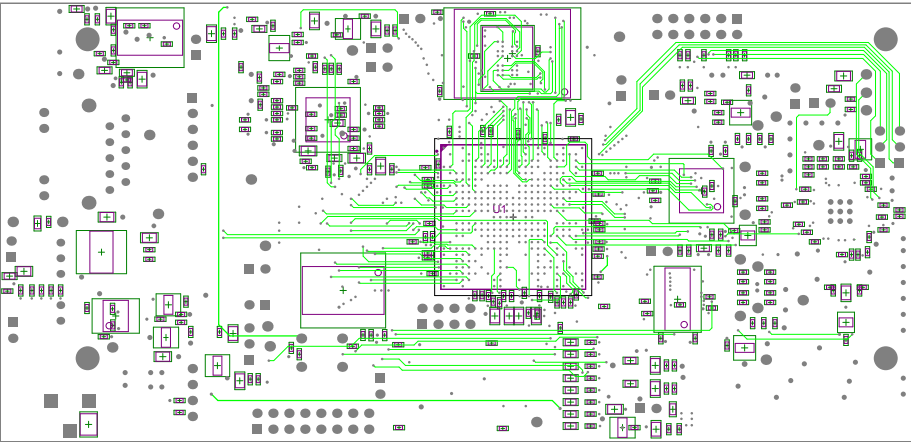
Title uSDR schematic		Cannot open file C:\Users\samk ... University of Michigan
Author: Ye-sheng Kuo	Revision: 2.0	
Date: 6/13/2014	Sheet 15 of 16	
File: MEM.SchDoc		

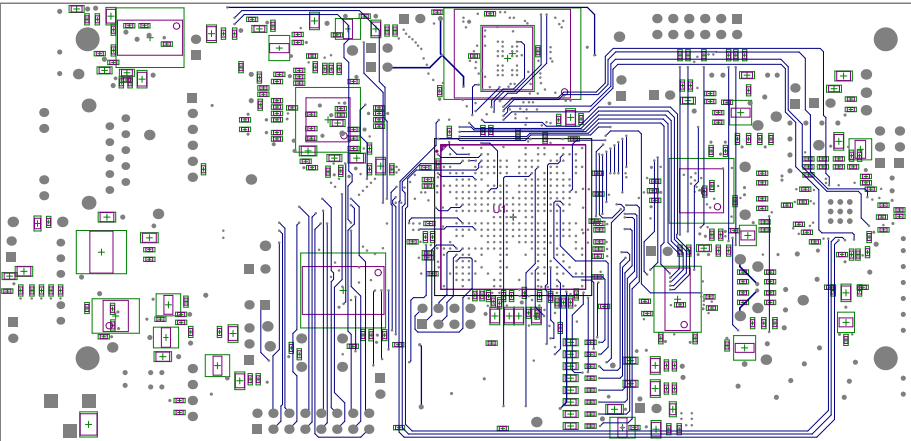


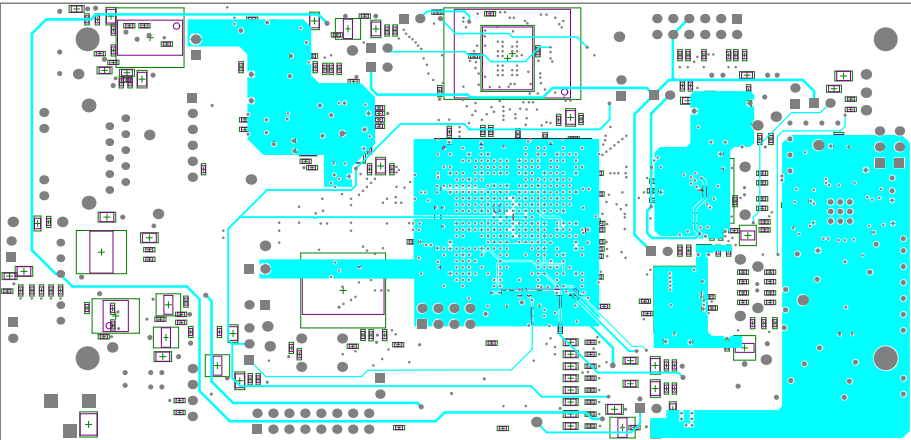
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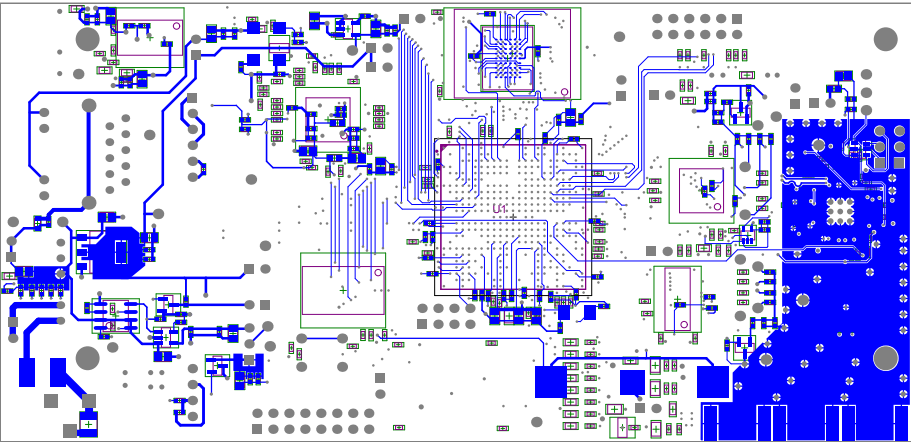


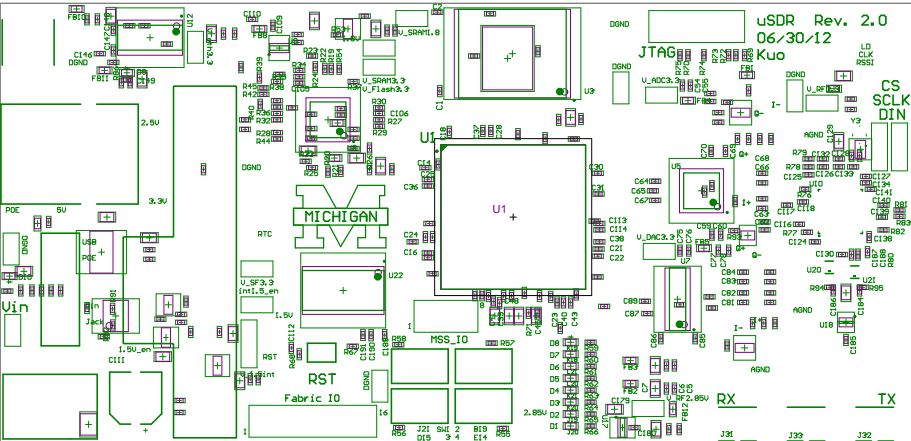


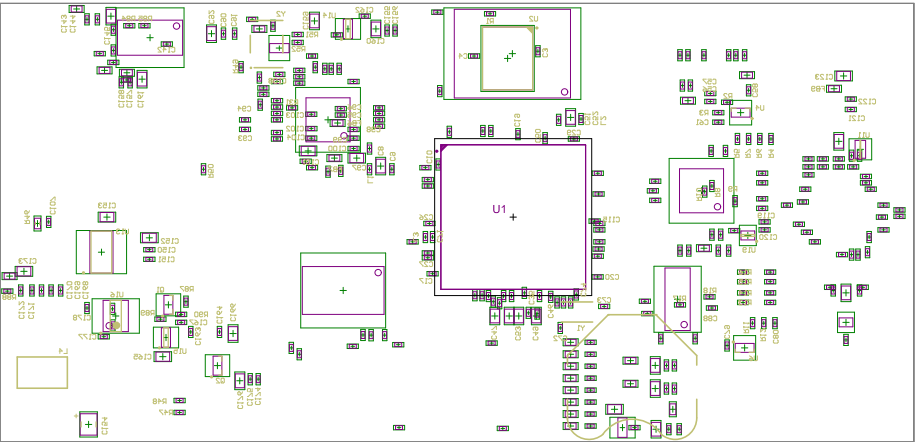












uSDR V2 BOM 6/28 '12

Designator	Value	Footprint	QTY	Supplier Part Number	Description
C187, C188	1.5pF	0402	2	445-4859-1-ND	capacitor
C72, C73, C137	18pF	0402	3	445-1238-1-ND	capacitor
C135	33pF	0402	1	490-3220-1-ND	capacitor
C147, C148	47pF	0402	2	490-1287-1-ND	capacitor
C126	68pF	0402	1	490-1289-1-ND	capacitor
C5, C10, C11, C50, C54, C56, C75, C77, C90, C98, C102, C113, C116, C119, C121, C124, C127, C130, C138, C139, C141, C143, C150, C155, C157, C163, C168, C174, C178, C181, C184, C185, C186	100pF	0402	33	399-1022-1-ND	capacitor
C107, C136	1nF	0402	2	445-6848-1-ND	capacitor
C132	2.2nF	0402	1	490-5419-1-ND	capacitor
C62, C63, C66, C68, C81, C82, C83, C84, C112, C117, C118, C133, C134, C140, C162, C167, C180	0.01uF	0402	17	478-1114-1-ND	capacitor
C1, C2, C3, C4, C6, C9, C12, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C51, C55, C57, C58, C59, C60, C61, C64, C65, C67, C69, C70, C71, C74, C76, C78, C79, C80, C85, C86, C87, C88, C89, C91, C93, C94, C95, C96, C99, C100, C103, C104, C105, C106, C108, C109, C110, C114, C115, C120, C122, C125, C128, C142, C144, C146, C149, C151, C156, C158, C164, C169, C170, C171, C172, C175, C177, C182, C189, C190, C191	0.1uF	0402	101	490-1318-1-ND	capacitor
C7, C8, C13, C47, C48, C49, C52, C53, C92, C123, C129, C131, C145, C152, C153, C159, C160, C161, C165, C166, C173, C176, C179, C183	10uF	0805	24	445-7660-1-ND	capacitor
C97, C101	22uF	0805	2	445-1422-1-ND	capacitor
C154	47uF	1210	1	478-1692-1-ND	capacitor
C111	470uF		1	PCE3184CT-ND	capacitor
R31, R47, R48, R94, R95	0	0402	5	P0.0JCT-ND	Resistor (Do not install)
R19, R22, R27, R29, R30, R51, R52, R53, R54, R72, R73, R74, R75	33	0402	13	P33.0LCT-ND	Resistor
R20, R25, R28, R32, R68	49.9	0402	5	P49.9LCT-ND	Resistor
R11, R42, R45	270	0402	3	P270LCT-ND	Resistor
R50	698	0402	1	P698LCT-ND	Resistor
R59, R60, R61, R62, R63, R64, R65, R66, R78, R86	750	0402	10	P750LCT-ND	Resistor
R2	820	0402	1	P820LCT-ND	Resistor
R69, R70, R71, R84, R85, R88	1K	0402	6	P1.00KLCT-ND	Resistor
R12, R76, R77, R79, R80, R81, R82, R83, R93	1.2K	0402	9	P1.20KLCT-ND	Resistor
R3	2.7K	0402	1	P2.70KLCT-ND	Resistor
R4, R5, R6, R7, R13, R14, R15, R16	3.3K	0402	8	P3.30KLCT-ND	Resistor
R26, R36, R38	4.7K	0402	3	P4.70KLCT-ND	Resistor
R33, R90	6.49K	0402	2	P6.49KLCT-ND	Resistor
R35, R37, R39, R40, R41, R43, R44, R49, R55, R56, R57, R58, R67, R87, R89, R91, R92	10K	0402	27	P10.0KLCT-ND	Resistor
R46	5Meg	0603	1	541-5.23MHCT-ND	Resistor
D1, D2, D3, D4, D5, D6, D7, D8	Red	0603	8	516-2230-1-ND	Typical RED, GREEN, YELLOW, AMBER GaAs LED
D9	Green	0603	1	516-1797-1-ND	Typical RED, GREEN, YELLOW, AMBER GaAs LED
D10	Blue	0603	1	475-2816-1-ND	Typical RED, GREEN, YELLOW, AMBER GaAs LED
FB1, FB2, FB3, FB4, FB5, FB6, FB7, FB8, FB9, FB10, FB11, FB12		0603	12	490-1035-1-ND	FERRITE CHIP 30 OHM 1000MA 0603
J1, J2, J3, J4, J6, J7, J8, J9, J11, J12, J13, J14, J15, J16, J18, J20, J21, J22, J23, J24, J25, J26, J27, J28, J29, J30, J34		TestPoint	27	5004K-ND	TEST POINT PC MINI .040"D YELLOW
J5		3002TR	1	3002KCT-ND	HOLDER BATTERY COIN 20MM DIA SMD
J10		7499211121A	1	732-1654-ND	CONN RJ45 8-8 W/TRANSFORMER
J17		Mini USB	1	WM17116CT-ND	CONN RECEPT MINIUSB R/A 5POS SMD
J19		PJ-102AH	1	CP-102AH-ND	CONN PWR JACK 2.1X5.5MM HIGH CUR
J31, J32, J33		SMA_SMD	3	J658-ND	CONN JACK END LAUNCH PC GOLD SMA
L1, L2, L3	33nH	0402	3	490-2629-1-ND	Inductor
L4	8.2uH	FLAT-PAC	1	513-1552-1-ND	Inductor
M1	5V	AG9205S	1	AG9205S	Silver Telecom AG9205S POE
P1, P2, P3, P4, P5, P6, P7, P11, P14, P15, P17, P18, P19, P20, P21		1x2 header	15	3M9447-ND	100 mils standard header
P8		2x8 header	1	67996-416HLF	100 mils standard header
P9		2x4 header	1	67997-108HLF	100 mils standard header
P10		2x6 header	1	68021-212HLF	100 mils standard header
P12, P13, P16		1x3 header	3	3M9448-ND	100 mils standard header

Q1, Q2		SOT23-3N	2	MMBT2222ATPMSCT-ND	TRANSISTOR NPN GP 40V SOT23
SW1, SW2, SW3, SW4		KSC403	4	401-1776-1-ND	Switch
SW5		EVQPA PB	1	P8008S-ND	Switch
SW6		STS1400PC04	1	450-1615-ND	Switch Slide 4 postions
U1		BGA	1	1100-1008-ND	FPGA - Field Programmable Gate Array 500K System Gates
U2		BGA	1	557-1444-1-ND	IC PSRAM 128MBIT 70NS 54VFBGA
U3		TSSOP	1	797-529GL064N90TFI01	Flash 3V 64Mb Float Gate highest address 90s
U4, U6	1.25V	SOT23-3N	2	MAX6061AEUR+TCT-ND	IC REF VOLT LDO SOT23-3
U5	100MHz	LQFP	1	AD9288BSTZ-100-ND	IC ADC 8BIT DUAL 100MSPS 48-LQFP
U7		QSOP	1	MAX5189BEEI+-ND	IC DAC 8BIT DUAL 40MHZ 28-QSOP
U8		LQFP	1	576-1673-ND	IC TXRX PHY 10/100 3.3V 48-LQFP
U9		SOT23-5	1	296-11599-1-ND	IC SINGLE INVERTER-GATE SOT-23-5
U10		TQFN-48	1	700-MAX2831ETM+	RF Transceiver 2.4-2.5GHz 802.11g/b RF Transceiver
U11		SOT23-6	1	ADC081S101CIMFTR-ND	IC ADC 8BIT 1MSPS SOT23-6
U12		SSOP	1	768-1007-2-ND	USB to UART interface in SSOP-28 package
U13	3.3V	SOT223-4L	1	LT1117CST-3.3#PBF-ND	IC REG LDO 3.3V SOT-223
U14	1.8V	SOT23-5	1	296-8147-1-ND	IC 1.8V 100MA LDO REG SOT-23-5
U15	1.5V	SOT23-5	1	296-15801-1-ND	IC LDO REG 150MA 1.5V SOT23-5
U16		SOIC	1	296-15017-1-ND	IC SUPPLY VOLT SUPERVISOR 8-SOIC
U17	2.85V	SOT23-5	1	REG102NA-2.85CT-ND	IC REG LDO 2.85V 250MA SOT23-5
U18		SOT363-6N	1	863-1238-1-ND	IC SW SPDT 0.1-3GHZ GAAS SC88
U19		SOT353-5N	1	568-2573-1-ND	IC UNBUFFERED INVERTER LP 5TSSOP
U20, U21		HMM1520A2	2	445-3985-1-ND	XFRMR BALUN RF 2.4GHZ SMD
U22		SOIC	1	568-4961-5-ND	IC REAL TIME CLK/CALENDAR 20SOIC
Y1	20MHz	ABM3	1	535-10641-1-ND	CRYSTAL 20.000MHZ 18PF SMD
Y2	50MHz	CB3_CB3LV	1	CTX283LVCT-ND	OSC 50.000 MHZ 3.3V SMD
Y3	40MHz	CX-2520SB	1	478-4818-1-ND	CRYSTAL 40.000MHZ 12PF SMD