

# VC709 EVALUATION PLATFORM HW-V7-VC709

## (XC7VX690T-FFG1761)

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		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		DISCLAIMER SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
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SMA Clock

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IIC Addressing	
0b1110100	PCA9548A
0b1011101	SI570
0bxxxxx00	FMC HPC
0b1010100	IIC EEPROM
0b1110101	PCA9546A
0b1010000	SFP+ (4X)
0b1010001	DDR3 SODIMM J1
0b0011001	
0b1010010	DDR3 SODIMM J3
0b0011010	
0b1101000	SI5324

MODE DIP

SWITCH

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BPI Flash

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Switches

LEDs,PB Sw.,

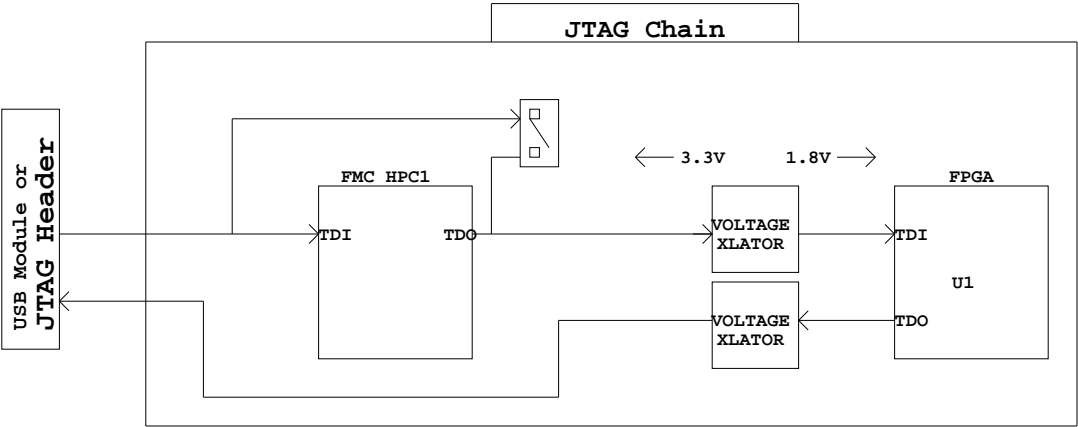
DIP Sw.

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XADC Header

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IRONWOOD FFG1761 SOCKET  
SUPPORTS MULTIPLE DEVICES  
REFER TO BOARD BILL OF  
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Switching Module VoutA

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PTD08D210W U21

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Switching Module VoutB

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Switching Module VoutA

MGTAVCC 1.0V @ 10A

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MGTAVTT 1.2V @ 10A

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Power Controller 3

U64 PMBus Addr54

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Switching Module VoutA

VCCAUX\_IO @ 10A

PTD08D210W U62

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Switching Module VoutB

NOT USED @ 10A

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Switching Module VoutA

MGTVCCAUX 1.0V @ 10A

PTD08D210W U63

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VCC1V8 1.8V @ 10A

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Switching Regulator

5.0V@1.5A max

LMZ12002 U36

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Linear Regulator

XADC\_VCC 1.7V-2V@ 300mA

REF3012 U35

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Switching Regulator

0.75V@3A max

TPS51200 U23

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VCC3V3



ASSY P/N: 0431748  
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SCH P/N: 0381499

Title: vc709\_rev1.0 Block Diagram  
SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

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Ver: 1.0

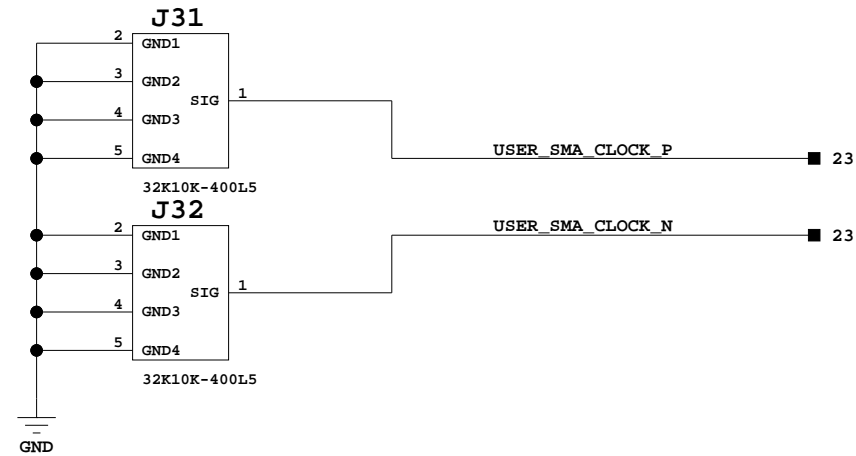
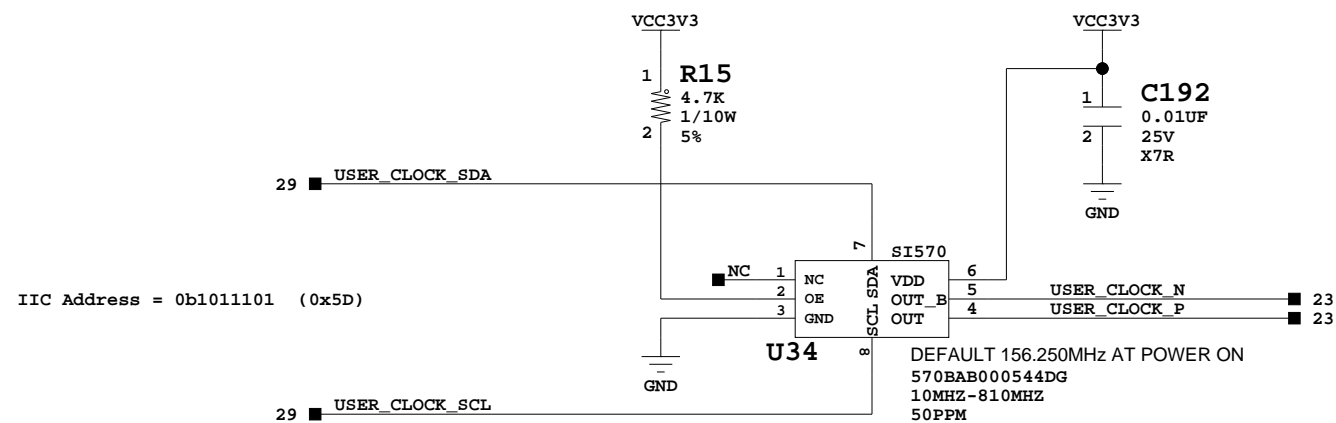
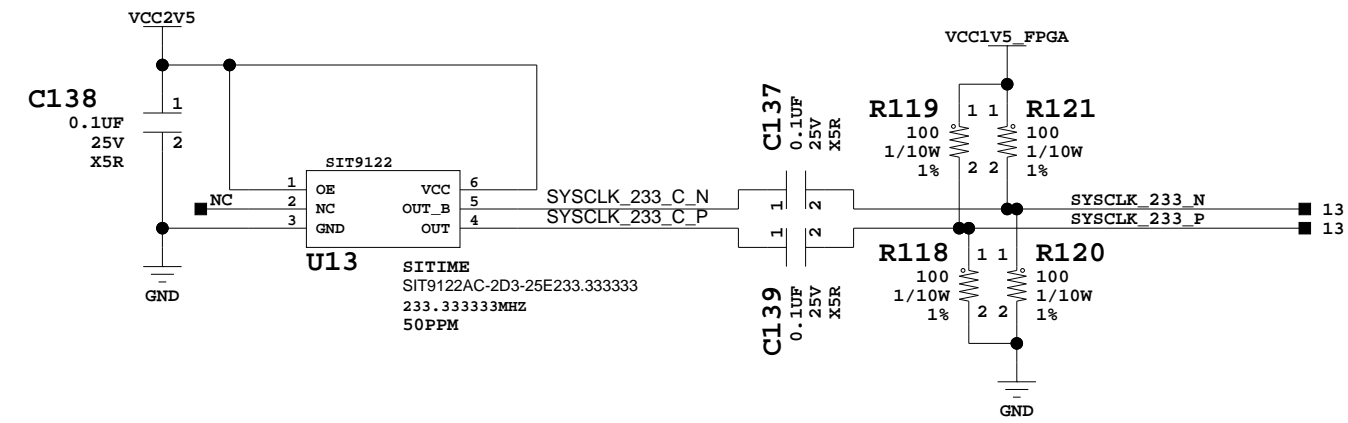
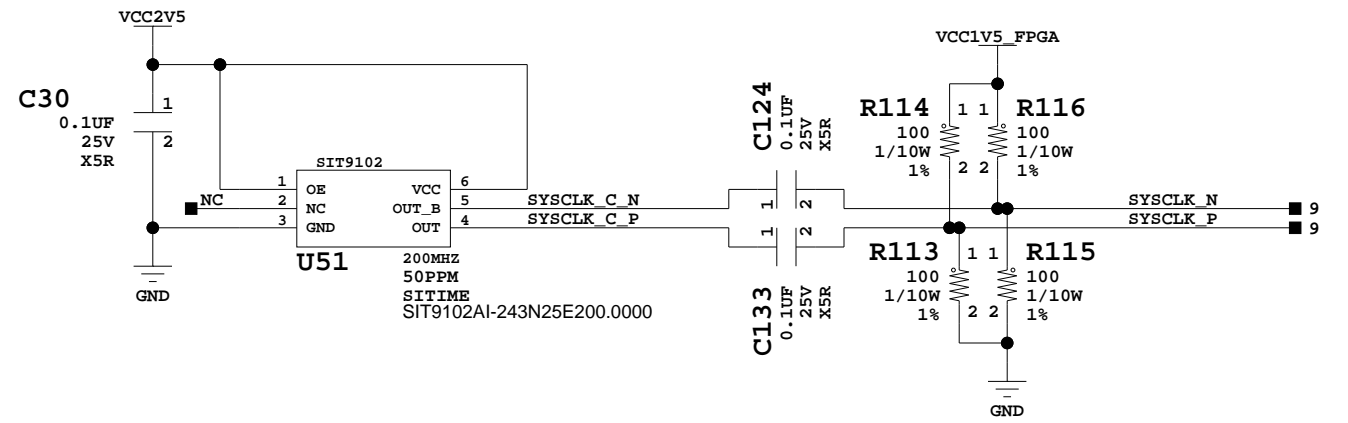
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## Clocks and SMA Connectors



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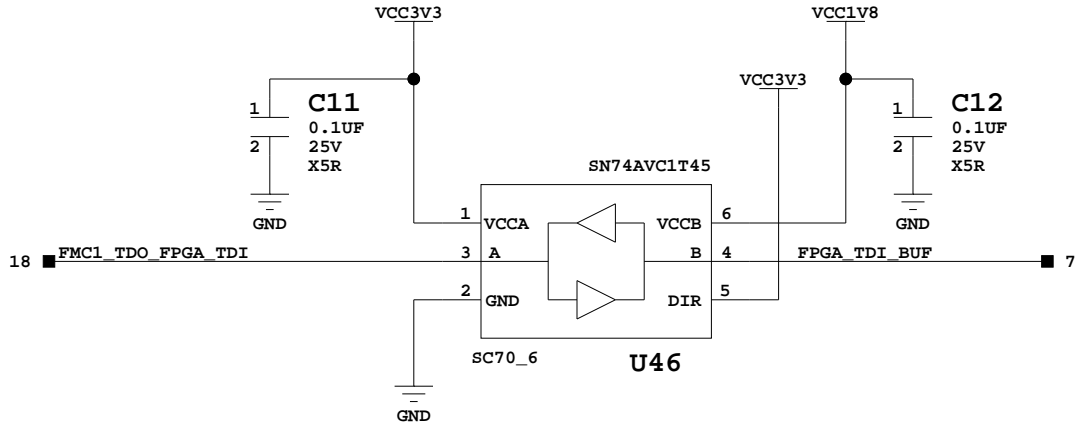
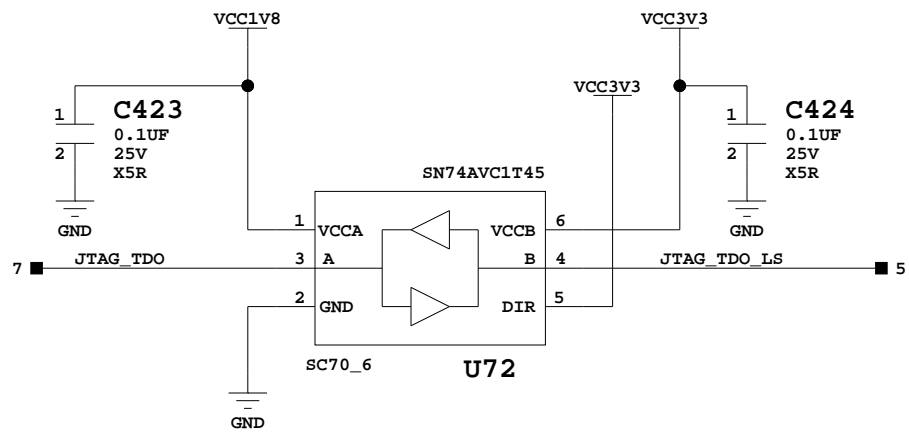
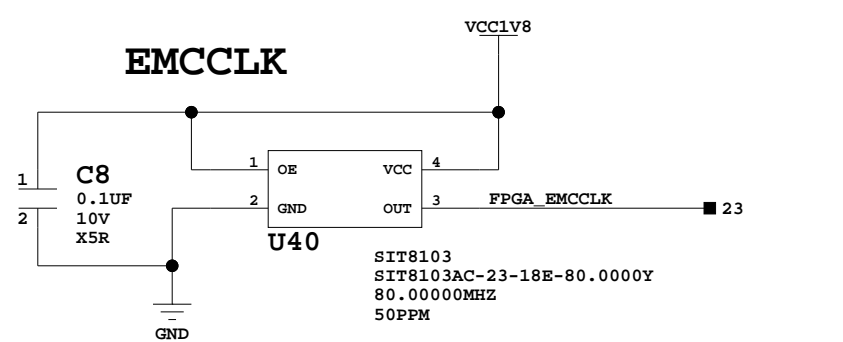
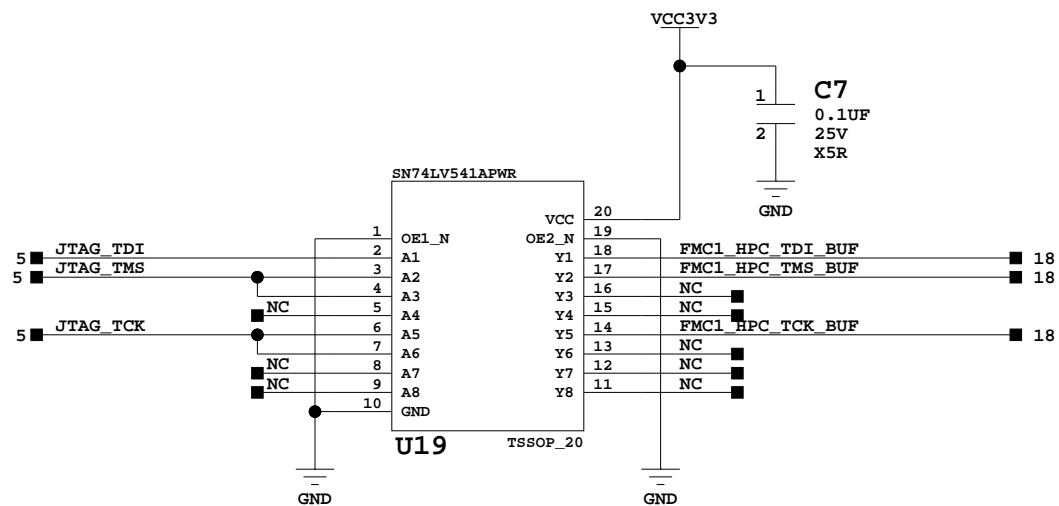
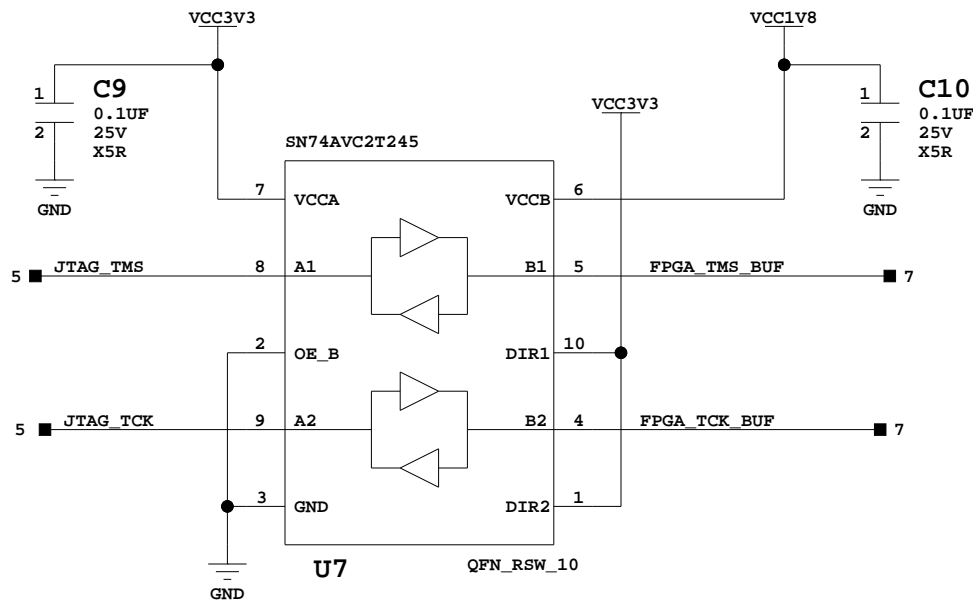
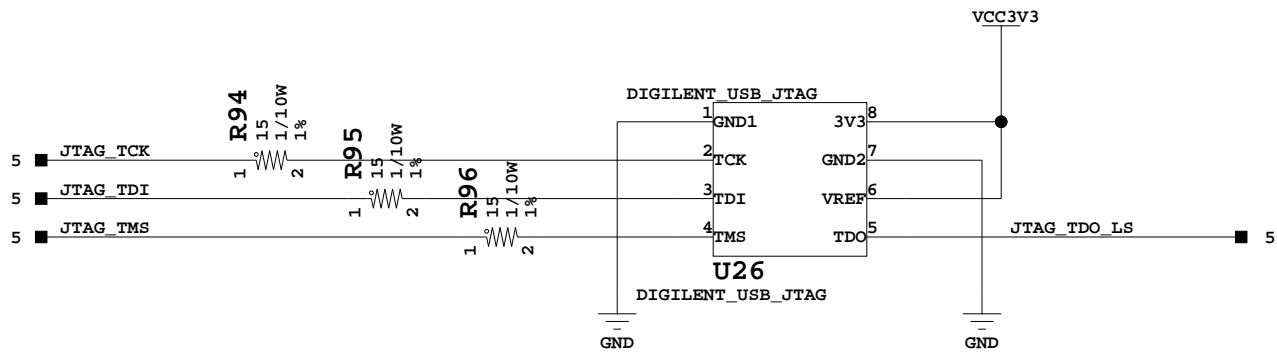
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SCHEM, ROHS COMPLIANT  
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# JTAG Buffer, USB JTAG Module, JTAG Hdr

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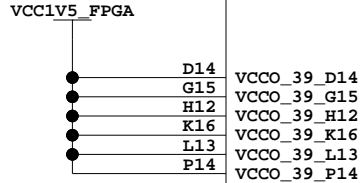




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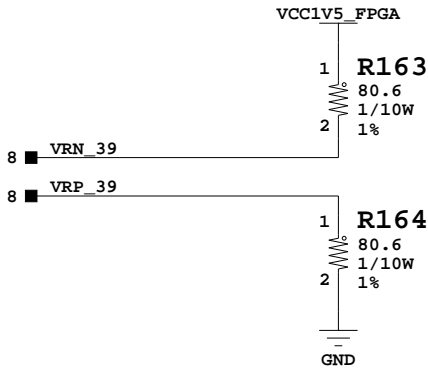
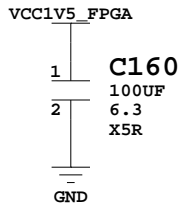
BANK 39  
XC7VX690TFFG1761

IO_0_VRN_39_J16	J16	VRN_39	8
IO_L1P_T0_39_C16	C16	DDR3_A_D30	10
IO_L1N_T0_39_B16	B16	DDR3_A_D26	10
IO_L2P_T0_39_B14	B14	DDR3_A_D24	10
IO_L2N_T0_39_A14	A14	DDR3_A_DM3	10
IO_L3P_T0_DQS_39_C15	C15	DDR3_A_DQS3_P	10
IO_L3N_T0_DQS_39_C14	C14	DDR3_A_DQS3_N	10
IO_L4P_T0_39_D13	D13	DDR3_A_D28	10
IO_L4N_T0_39_C13	C13	DDR3_A_D25	10
IO_L5P_T0_39_D16	D16	DDR3_A_D31	10
IO_L5N_T0_39_D15	D15	DDR3_A_D27	10
IO_L6P_T0_39_E12	E12	DDR3_A_D29	10
IO_L6N_T0_VREF_39_D12	D12		
IO_L7P_T1_39_F16	F16	NC	
IO_L7N_T1_39_E15	E15	DDR3_A_D16	10
IO_L8P_T1_39_E14	E14	DDR3_A_D19	10
IO_L8N_T1_39_E13	E13	DDR3_A_D17	10
IO_L9P_T1_DQS_39_H16	H16	DDR3_A_DQS2_P	10
IO_L9N_T1_DQS_39_G16	G16	DDR3_A_DQS2_N	10
IO_L10P_T1_39_G12	G12	DDR3_A_D21	10
IO_L10N_T1_39_F12	F12	DDR3_A_DM2	10
IO_L11P_T1_SRCC_39_F15	F15	DDR3_A_D18	10
IO_L11N_T1_SRCC_39_F14	F14	DDR3_A_D22	10
IO_L12P_T1_MRCC_39_G14	G14	DDR3_A_D23	10
IO_L12N_T1_MRCC_39_G13	G13	DDR3_A_D20	10
IO_L13P_T2_MRCC_39_H15	H15	NC	
IO_L13N_T2_MRCC_39_H14	H14	DDR3_A_D14	10
IO_L14P_T2_SRCC_39_J13	J13	DDR3_A_D11	10
IO_L14N_T2_SRCC_39_H13	H13	DDR3_A_D10	10
IO_L15P_T2_DQS_39_K12	K12	DDR3_A_DQS1_P	10
IO_L15N_T2_DQS_39_J12	J12	DDR3_A_DQS1_N	10
IO_L16P_T2_39_K15	K15	DDR3_A_DM1	10
IO_L16N_T2_39_J15	J15	DDR3_A_D15	10
IO_L17P_T2_39_K14	K14	DDR3_A_D8	10
IO_L17N_T2_39_K13	K13	DDR3_A_D9	10
IO_L18P_T2_39_L16	L16	DDR3_A_D12	10
IO_L18N_T2_39_L15	L15	DDR3_A_D13	10
IO_L19P_T3_39_L12	L12	DDR3_A_D7	10
IO_L19N_T3_VREF_39_L11	L11		
IO_L20P_T3_39_M14	M14	DDR3_A_D3	10
IO_L20N_T3_39_L14	L14	DDR3_A_D2	10
IO_L21P_T3_DQS_39_N16	N16	DDR3_A_DQS0_P	10
IO_L21N_T3_DQS_39_M16	M16	DDR3_A_DQS0_N	10
IO_L22P_T3_39_N13	N13	DDR3_A_D1	10
IO_L22N_T3_39_M13	M13	DDR3_A_DM0	10
IO_L23P_T3_39_N15	N15	DDR3_A_D5	10
IO_L23N_T3_39_M14	M14	DDR3_A_D0	10
IO_L24P_T3_39_M12	M12	DDR3_A_D4	10
IO_L24N_T3_39_M11	M11	DDR3_A_D6	10
IO_25_VRP_39_J11	J11	VRP_39	8



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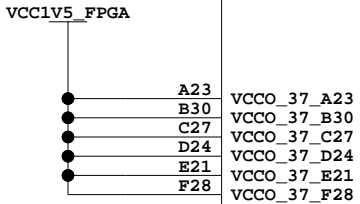
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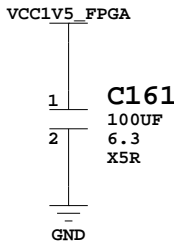
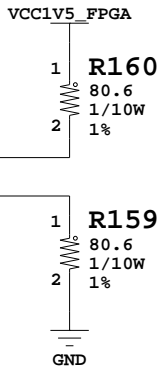
BANK 37  
XC7VX690TFFG1761

IO_0_VRN_37_F21	F21	VRN_37	8
IO_L1P_T0_37_A24	A24	DDR3_A_D32	10
IO_L1N_T0_37_A25	A25	DDR3_A_D38	10
IO_L2P_T0_37_B22	B22	DDR3_A_D37	10
IO_L2N_T0_37_A22	A22	DDR3_A_D36	10
IO_L3P_T0_DQS_37_A26	A26	DDR3_A_DQS4_P	10
IO_L3N_T0_DQS_37_A27	A27	DDR3_A_DQS4_N	10
IO_L4P_T0_37_C23	C23	DDR3_A_DM4	10
IO_L4N_T0_37_B23	B23	DDR3_A_D33	10
IO_L5P_T0_37_B26	B26	DDR3_A_D35	10
IO_L5N_T0_37_B27	B27	DDR3_A_D34	10
IO_L6P_T0_37_C24	C24	DDR3_A_D39	10
IO_L6N_T0_VREF_37_B24	B24		
IO_L7P_T1_37_E23	E23	DDR3_A_D44	10
IO_L7N_T1_37_E24	E24	DDR3_A_D40	10
IO_L8P_T1_37_F22	F22	DDR3_A_D46	10
IO_L8N_T1_37_E22	E22	DDR3_A_D47	10
IO_L9P_T1_DQS_37_F25	F25	DDR3_A_DQS5_P	10
IO_L9N_T1_DQS_37_E25	E25	DDR3_A_DQS5_N	10
IO_L10P_T1_37_D22	D22	DDR3_A_D45	10
IO_L10N_T1_37_D23	D23	DDR3_A_D41	10
IO_L11P_T1_SRCC_37_D25	D25	DDR3_A_DM5	10
IO_L11N_T1_SRCC_37_D26	D26	DDR3_A_D42	10
IO_L12P_T1_MRCC_37_C25	C25	DDR3_A_D43	10
IO_L12N_T1_MRCC_37_C26	C26	NC	
IO_L13P_T2_MRCC_37_D27	D27	DDR3_A_D49	10
IO_L13N_T2_MRCC_37_D28	D28	DDR3_A_D52	10
IO_L14P_T2_SRCC_37_C28	C28	DDR3_A_D51	10
IO_L14N_T2_SRCC_37_C29	C29	NC	
IO_L15P_T2_DQS_37_B28	B28	DDR3_A_DQS6_P	10
IO_L15N_T2_DQS_37_B29	B29	DDR3_A_DQS6_N	10
IO_L16P_T2_37_A31	A31	DDR3_A_D54	10
IO_L16N_T2_37_A32	A32	DDR3_A_D55	10
IO_L17P_T2_37_A29	A29	DDR3_A_D50	10
IO_L17N_T2_37_A30	A30	DDR3_A_D48	10
IO_L18P_T2_37_C31	C31	DDR3_A_DM6	10
IO_L18N_T2_37_B31	B31	DDR3_A_D53	10
IO_L19P_T3_37_E30	E30	DDR3_A_D56	10
IO_L19N_T3_VREF_37_D31	D31		
IO_L20P_T3_37_D30	D30	DDR3_A_D63	10
IO_L20N_T3_37_C30	C30	DDR3_A_D60	10
IO_L21P_T3_DQS_37_E27	E27	DDR3_A_DQS7_P	10
IO_L21N_T3_DQS_37_E28	E28	DDR3_A_DQS7_N	10
IO_L22P_T3_37_F29	F29	DDR3_A_D57	10
IO_L22N_T3_37_E29	E29	DDR3_A_D61	10
IO_L23P_T3_37_F26	F26	DDR3_A_D62	10
IO_L23N_T3_37_F27	F27	DDR3_A_D59	10
IO_L24P_T3_37_F30	F30	DDR3_A_D58	10
IO_L24N_T3_37_F31	F31	DDR3_A_DM7	10
IO_25_VRP_37_F24	F24	VRP_37	8



U1

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FPGA Banks 39, 37



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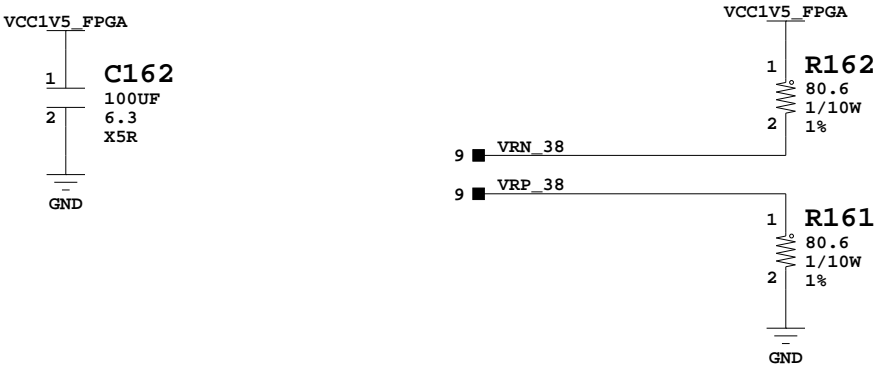
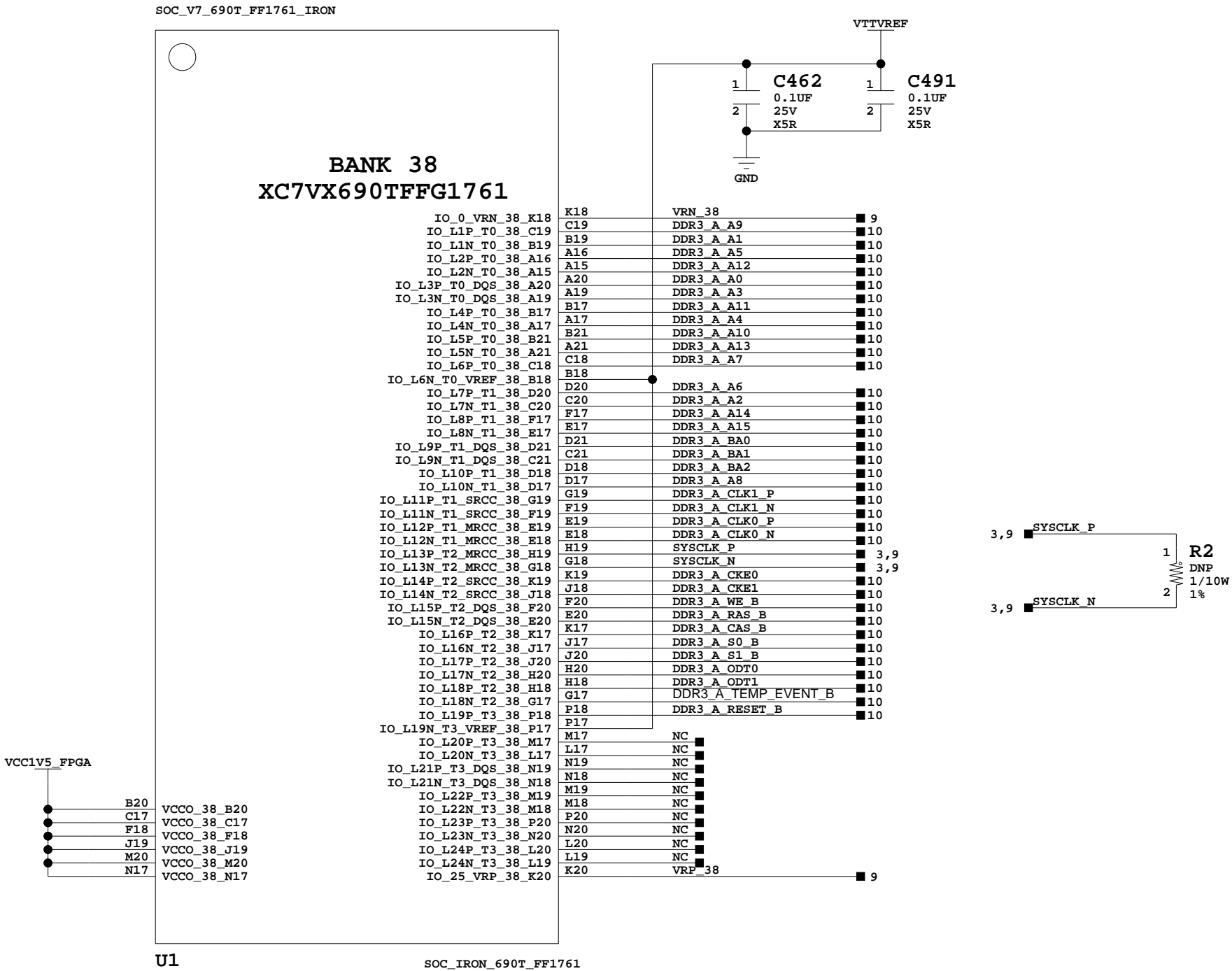
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SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

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FPGA Banks 38

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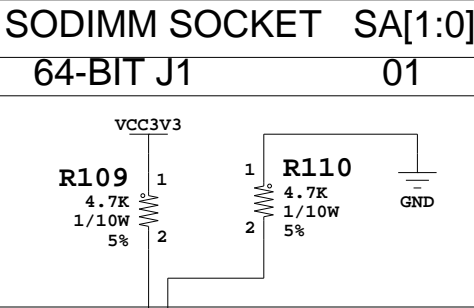
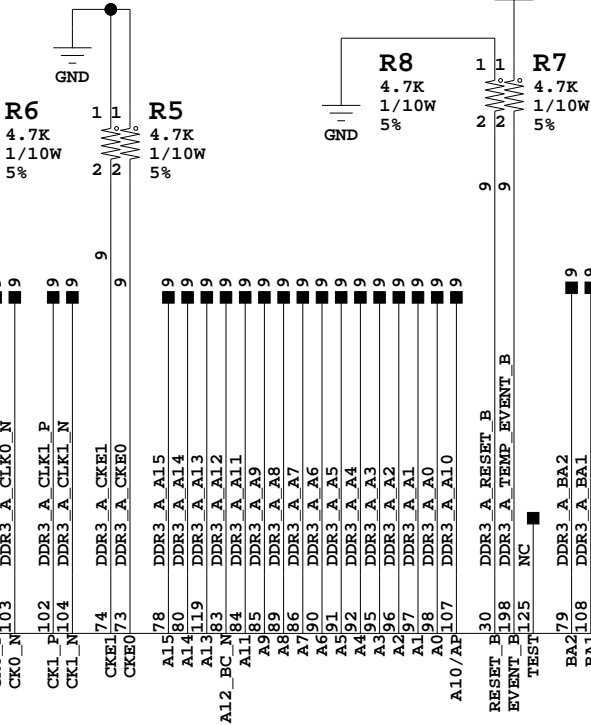
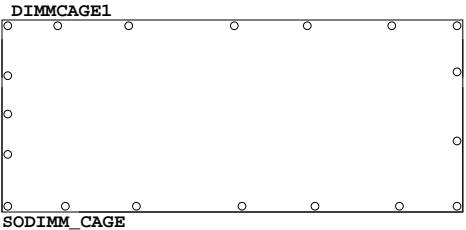
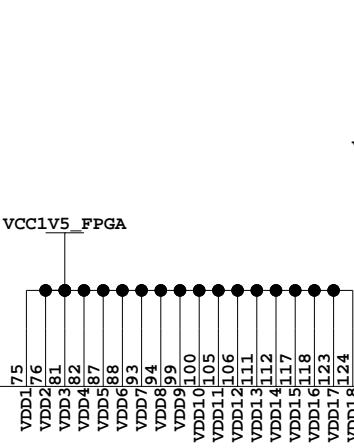
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8	DDR3 A D0		5	DQ5		130	DDR3 A D36	8
8	DDR3 A D5		6	DQ6		131	DDR3 A D33	8
8	DDR3 A D1		7	DQ7		132	DDR3 A D37	8
8	DDR3 A D0		11	DM0		136	DDR3 A DM4	8
8	DDR3 A DQ50 N		10	DQ50 N		135	DDR3 A DQ54 N	8
8	DDR3 A DQ50 P		12	DQ50 P		137	DDR3 A DQ54 P	8
8	DDR3 A D6		16	DQ6		140	DDR3 A D38	8
8	DDR3 A D7		18	DQ7		141	DDR3 A D34	8
8	DDR3 A D2		15	DQ2		142	DDR3 A D39	8
8	DDR3 A D3		17	DQ3		143	DDR3 A D35	8
8	DDR3 A D12		22	DQ12		146	DDR3 A D44	8
8	DDR3 A D13		24	DQ13		147	DDR3 A D40	8
8	DDR3 A D8		21	DQ14		148	DDR3 A D45	8
8	DDR3 A D9		23	DQ9		149	DDR3 A D41	8
8	DDR3 A DM1		28	DM1		153	DDR3 A DM5	8
8	DDR3 A DQ51 N		27	DQ51 N		152	DDR3 A DQ55 N	8
8	DDR3 A DQ51 P		29	DQ51 P		154	DDR3 A DQ55 P	8
8	DDR3 A D10		33	DQ10		157	DDR3 A D42	8
8	DDR3 A D14		34	DQ14		158	DDR3 A D46	8
8	DDR3 A D11		35	DQ11		159	DDR3 A D43	8
8	DDR3 A D15		36	DQ15		160	DDR3 A D47	8
8	DDR3 A D16		39	DQ16		163	DDR3 A D48	8
8	DDR3 A D20		40	DQ20		164	DDR3 A D52	8
8	DDR3 A D17		41	DQ20		165	DDR3 A D49	8
8	DDR3 A D21		42	DQ21		166	DDR3 A D53	8
8	DDR3 A DQ52 N		45	DQ52 N		169	DDR3 A DQ56 N	8
8	DDR3 A DQ52 P		47	DQ52 P		171	DDR3 A DQ56 P	8
8	DDR3 A DM2		46	DM2		170	DDR3 A DM6	8
8	DDR3 A D18		51	DQ18		175	DDR3 A D50	8
8	DDR3 A D22		50	DQ22		174	DDR3 A D54	8
8	DDR3 A D19		53	DQ19		177	DDR3 A D51	8
8	DDR3 A D23		52	DQ23		176	DDR3 A D55	8
8	DDR3 A D24		57	DQ24		181	DDR3 A D56	8
8	DDR3 A D28		56	DQ28		180	DDR3 A D60	8
8	DDR3 A D25		59	DQ25		183	DDR3 A D57	8
8	DDR3 A D29		58	DQ29		182	DDR3 A D61	8
8	DDR3 A DM3		63	DM3		187	DDR3 A DM7	8
8	DDR3 A DQ53 N		62	DQ53 N		186	DDR3 A DQ57 N	8
8	DDR3 A DQ53 P		64	DQ53 P		188	DDR3 A DQ57 P	8
8	DDR3 A D26		67	DQ26		191	DDR3 A D58	8
8	DDR3 A D30		68	DQ30		193	DDR3 A D59	8
8	DDR3 A D27		69	DQ27		192	DDR3 A D62	8
8	DDR3 A D31		70	DQ31		194	DDR3 A D63	8



Silkscreen:  
"DDR3 SODIMM A"

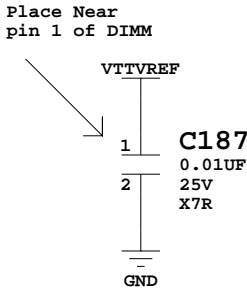
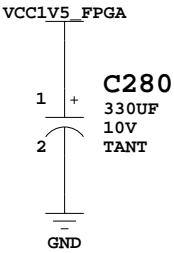
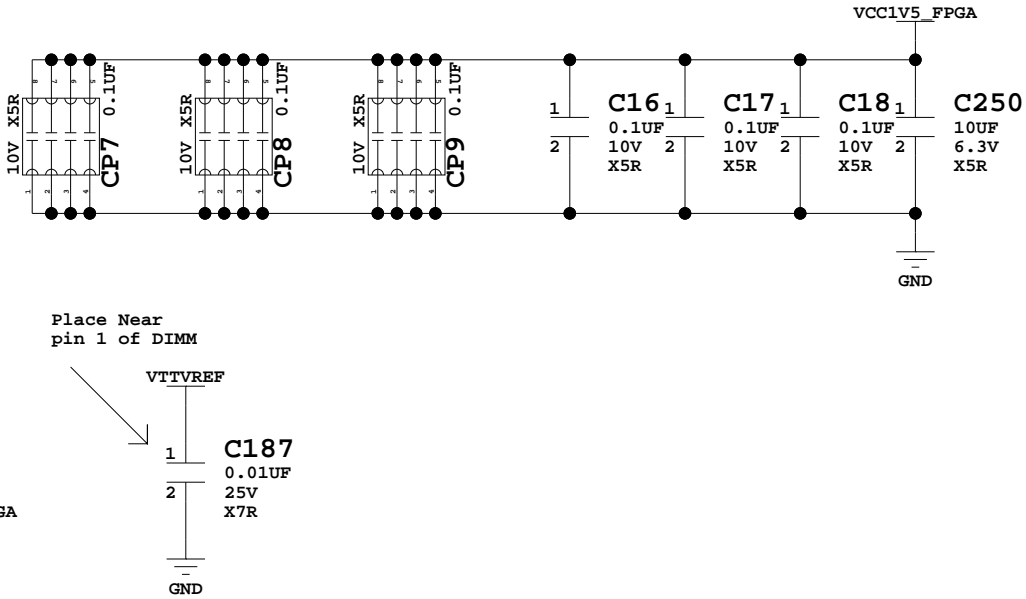
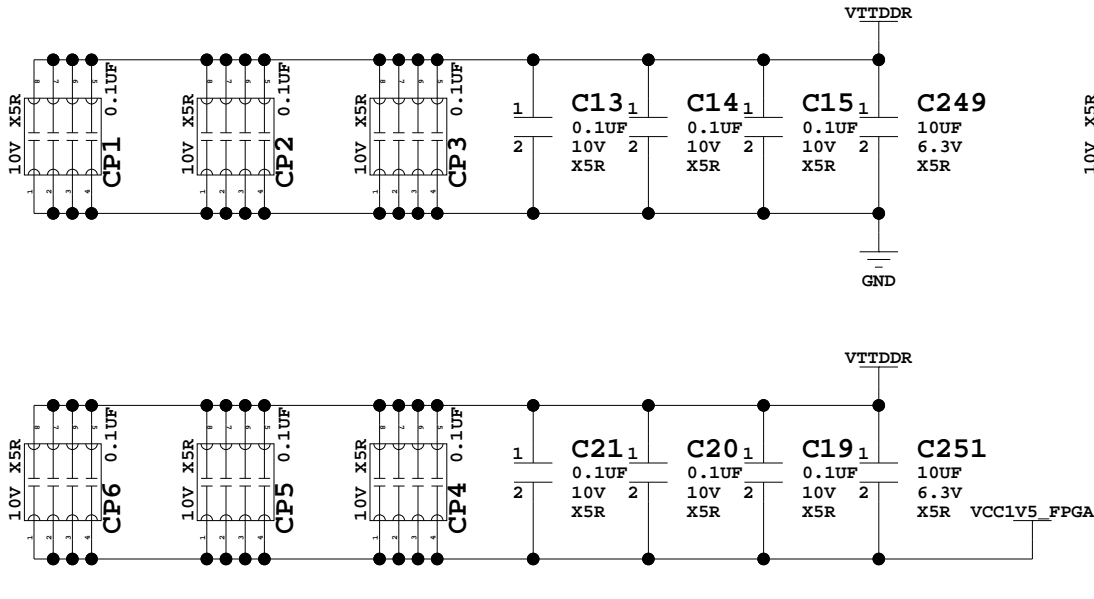
VCC1V5\_FPGA




IIC Address =  
0b1010001 (0x51)  
0b0011001 (0x19)

DDR3 SODIMM A

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		DDR3 SO-DIMM SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	10 of 57	Drawn By	DN



SODIMM A DECOUPLING

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		IIC MUX SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	11 of 57	Drawn By	DN

SOC\_V7\_690T\_FF1761\_IRON

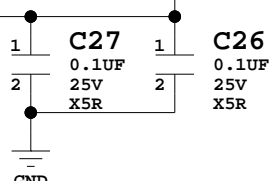
BANK 31  
XC7VX690TFFG1761

IO_0_VRN_31	AM14
IO_L1P_T0_31	AJ16
IO_L1N_T0_31	AJ15
IO_L2P_T0_31	AK14
IO_L2N_T0_31	AK13
IO_L3P_T0_DQS_31	AK15
IO_L3N_T0_DQS_31	AL14
IO_L4P_T0_31	AJ13
IO_L4N_T0_31	AJ12
IO_L5P_T0_31	AL16
IO_L5N_T0_31	AL15
IO_L6P_T0_31	AK12
IO_L6N_T0_VREF_31	AL12
IO_L7P_T1_31	AM13
IO_L7N_T1_31	AN13
IO_L8P_T1_31	AM12
IO_L8N_T1_31	AM11
IO_L9P_T1_DQS_31	AN15
IO_L9N_T1_DQS_31	AN14
IO_L10P_T1_31	AN11
IO_L10N_T1_31	AP11
IO_L11P_T1_SRCC_31	AR14
IO_L11N_T1_SRCC_31	AT14
IO_L12P_T1_MRCC_31	AP13
IO_L12N_T1_MRCC_31	AR13
IO_L13P_T2_MRCC_31	AU14
IO_L13N_T2_MRCC_31	AU13
IO_L14P_T2_SRCC_31	AV13
IO_L14N_T2_SRCC_31	AW13
IO_L15P_T2_DQS_31	AP12
IO_L15N_T2_DQS_31	AR12
IO_L16P_T2_31	AR15
IO_L16N_T2_31	AT15
IO_L17P_T2_31	AT12
IO_L17N_T2_31	AU12
IO_L18P_T2_31	AV15
IO_L18N_T2_31	AV14
IO_L19P_T3_31	AW15
IO_L19N_T3_VREF_31	AY15
IO_L20P_T3_31	AW12
IO_L20N_T3_31	AY12
IO_L21P_T3_DQS_31	BA15
IO_L21N_T3_DQS_31	BA14
IO_L22P_T3_31	AY14
IO_L22N_T3_31	AY13
IO_L23P_T3_31	BB14
IO_L23N_T3_31	BB13
IO_L24P_T3_31	BA12
IO_L24N_T3_31	BB12
IO_25_VRP_31	AP15

VCC1V5\_FPGA

AK16	VCCO_31_AK16
AL13	VCCO_31_AL13
AP14	VCCO_31_AP14
AR11	VCCO_31_AR11
AU15	VCCO_31_AU15
AV12	VCCO_31_AV12
BA13	VCCO_31_BA13

VTTVREF



U1

SOC\_IRON\_690T\_FF1761

SOC\_V7\_690T\_FF1761\_IRON

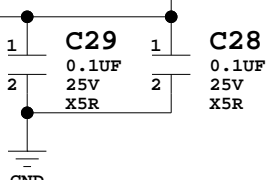
BANK 33  
XC7VX690TFFG1761

IO_0_VRN_33	AL24
IO_L1P_T0_33	AJ23
IO_L1N_T0_33	AK23
IO_L2P_T0_33	AK20
IO_L2N_T0_33	AL20
IO_L3P_T0_DQS_33	AJ22
IO_L3N_T0_DQS_33	AK22
IO_L4P_T0_33	AL21
IO_L4N_T0_33	AM21
IO_L5P_T0_33	AJ21
IO_L5N_T0_33	AJ20
IO_L6P_T0_33	AL22
IO_L6N_T0_VREF_33	AM22
IO_L7P_T1_33	AM24
IO_L7N_T1_33	AN24
IO_L8P_T1_33	AM23
IO_L8N_T1_33	AN23
IO_L9P_T1_DQS_33	AP23
IO_L9N_T1_DQS_33	AP22
IO_L10P_T1_33	AN21
IO_L10N_T1_33	AP21
IO_L11P_T1_SRCC_33	AR23
IO_L11N_T1_SRCC_33	AR22
IO_L12P_T1_MRCC_33	AT22
IO_L12N_T1_MRCC_33	AU22
IO_L13P_T2_MRCC_33	AU23
IO_L13N_T2_MRCC_33	AV23
IO_L14P_T2_SRCC_33	AW23
IO_L14N_T2_SRCC_33	AW22
IO_L15P_T2_DQS_33	AT21
IO_L15N_T2_DQS_33	AU21
IO_L16P_T2_33	AR24
IO_L16N_T2_33	AT24
IO_L17P_T2_33	AV21
IO_L17N_T2_33	AW21
IO_L18P_T2_33	AU24
IO_L18N_T2_33	AV24
IO_L19P_T3_33	AY23
IO_L19N_T3_VREF_33	AY22
IO_L20P_T3_33	AY25
IO_L20N_T3_33	BA25
IO_L21P_T3_DQS_33	BA22
IO_L21N_T3_DQS_33	BB22
IO_L22P_T3_33	AY24
IO_L22N_T3_33	BA24
IO_L23P_T3_33	BA21
IO_L23N_T3_33	BB21
IO_L24P_T3_33	BB24
IO_L24N_T3_33	BB23
IO_25_VRP_33	AN20

VCC1V5\_FPGA

AL23	VCCO_33_AL23
AM20	VCCO_33_AM20
AP24	VCCO_33_AP24
AR21	VCCO_33_AR21
AV22	VCCO_33_AV22
BA23	VCCO_33_BA23

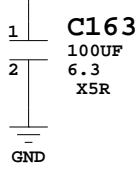
VTTVREF



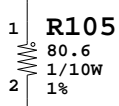
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SOC\_IRON\_690T\_FF1761

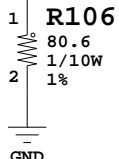
VCC1V5\_FPGA



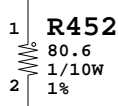
VCC1V5\_FPGA



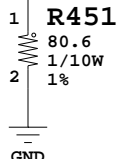
VRN_31	12
VRP_31	12



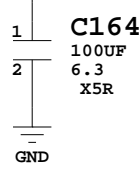
VCC1V5\_FPGA



VRN_33	12
VRP_33	12



VCC1V5\_FPGA



FPGA Banks 31, 33



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

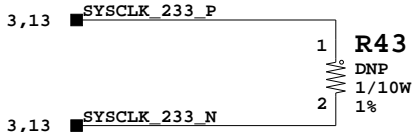
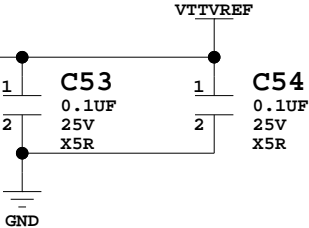
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Date: 12-21-2012_12:08	Ver: 1.0
Sheet Size: B	Rev: 01
Sheet 12 of 57	Drawn By DN

SOC\_V7\_690T\_FF1761\_IRON

BANK 32  
XC7VX690TFFG1761

IO\_0\_VRN\_32\_AR20  
IO\_L1P\_T0\_32\_AL19  
IO\_L1N\_T0\_32\_AM19  
IO\_L2P\_T0\_32\_AK17  
IO\_L2N\_T0\_32\_AL17  
IO\_L3P\_T0\_DQS\_32\_AM18  
IO\_L3N\_T0\_DQS\_32\_AM17  
IO\_L4P\_T0\_32\_AK19  
IO\_L4N\_T0\_32\_AK18  
IO\_L5P\_T0\_32\_AM16  
IO\_L5N\_T0\_32\_AN16  
IO\_L6P\_T0\_32\_AJ18  
IO\_L6N\_T0\_VREF\_32\_AJ17  
IO\_L7P\_T1\_32\_AP18  
IO\_L7N\_T1\_32\_AP17  
IO\_L8P\_T1\_32\_AP20  
IO\_L8N\_T1\_32\_AR19  
IO\_L9P\_T1\_DQS\_32\_AN19  
IO\_L9N\_T1\_DQS\_32\_AN18  
IO\_L10P\_T1\_32\_AR18  
IO\_L10N\_T1\_32\_AR17  
IO\_L11P\_T1\_SRCC\_32\_AU18  
IO\_L11N\_T1\_SRCC\_32\_AV18  
IO\_L12P\_T1\_MRCC\_32\_AT17  
IO\_L12N\_T1\_MRCC\_32\_AU17  
IO\_L13P\_T2\_MRCC\_32\_AY18  
IO\_L13N\_T2\_MRCC\_32\_AY17  
IO\_L14P\_T2\_SRCC\_32\_AW18  
IO\_L14N\_T2\_SRCC\_32\_AW17  
IO\_L15P\_T2\_DQS\_32\_AU19  
IO\_L15N\_T2\_DQS\_32\_AV19  
IO\_L16P\_T2\_32\_AT20  
IO\_L16N\_T2\_32\_AT19  
IO\_L17P\_T2\_32\_AV16  
IO\_L17N\_T2\_32\_AW16  
IO\_L18P\_T2\_32\_AT16  
IO\_L18N\_T2\_32\_AU16  
IO\_L19P\_T3\_32\_BB19  
IO\_L19N\_T3\_VREF\_32\_BB18  
IO\_L20P\_T3\_32\_AV20  
IO\_L20N\_T3\_32\_AW20  
IO\_L21P\_T3\_DQS\_32\_BA17  
IO\_L21N\_T3\_DQS\_32\_BB17  
IO\_L22P\_T3\_32\_AY20  
IO\_L22N\_T3\_32\_BA20  
IO\_L23P\_T3\_32\_BA16  
IO\_L23N\_T3\_32\_BB16  
IO\_L24P\_T3\_32\_AY19  
IO\_L24N\_T3\_32\_BA19  
IO\_25\_VRP\_32\_AP16

AR20 NC  
AL19 DDR3\_B\_A15  
AM19 DDR3\_B\_A14  
AK17 DDR3\_B\_A13  
AL17 DDR3\_B\_A12  
AM18 DDR3\_B\_A11  
AM17 DDR3\_B\_A10  
AK19 DDR3\_B\_A9  
AK18 DDR3\_B\_A8  
AM16 DDR3\_B\_A7  
AN16 DDR3\_B\_A6  
AJ18 DDR3\_B\_A5  
AJ17  
AP18 DDR3\_B\_A4  
AP17 DDR3\_B\_A3  
AP20 DDR3\_B\_A2  
AR19 DDR3\_B\_A1  
AN19 DDR3\_B\_A0  
AN18 DDR3\_B\_BA2  
AR18 DDR3\_B\_BA1  
AR17 DDR3\_B\_BA0  
AU18 DDR3\_B\_CLK1\_P  
AV18 DDR3\_B\_CLK1\_N  
AT17 DDR3\_B\_CLK0\_P  
AU17 DDR3\_B\_CLK0\_N  
AY18 SYSCLK\_233\_P  
AY17 SYSCLK\_233\_N  
AW18 DDR3\_B\_CKE1  
AW17 DDR3\_B\_CKE0  
AU19 DDR3\_B\_WE\_B  
AV19 DDR3\_B\_RAS\_B  
AT20 DDR3\_B\_CAS\_B  
AT19 DDR3\_B\_S1\_B  
AV16 DDR3\_B\_S0\_B  
AW16 DDR3\_B\_ODT1  
AT16 DDR3\_B\_ODT0  
AU16 DDR3\_B\_TEMP\_EVENT\_B  
BB19 DDR3\_B\_RESET\_B  
BB18  
AV20 NC  
AW20 NC  
BA17 NC  
BB17 NC  
AY20 NC  
BA20 NC  
BA16 NC  
BB16 NC  
AY19 NC  
BA19 NC  
AP16 NC



VCC1V5\_FPGA

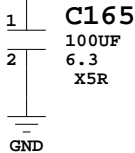
AJ19  
AN17  
AT18  
AW19  
AY16  
BB20

VCCO\_32\_AJ19  
VCCO\_32\_AN17  
VCCO\_32\_AT18  
VCCO\_32\_AW19  
VCCO\_32\_AY16  
VCCO\_32\_BB20


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SOC\_IRON\_690T\_FF1761

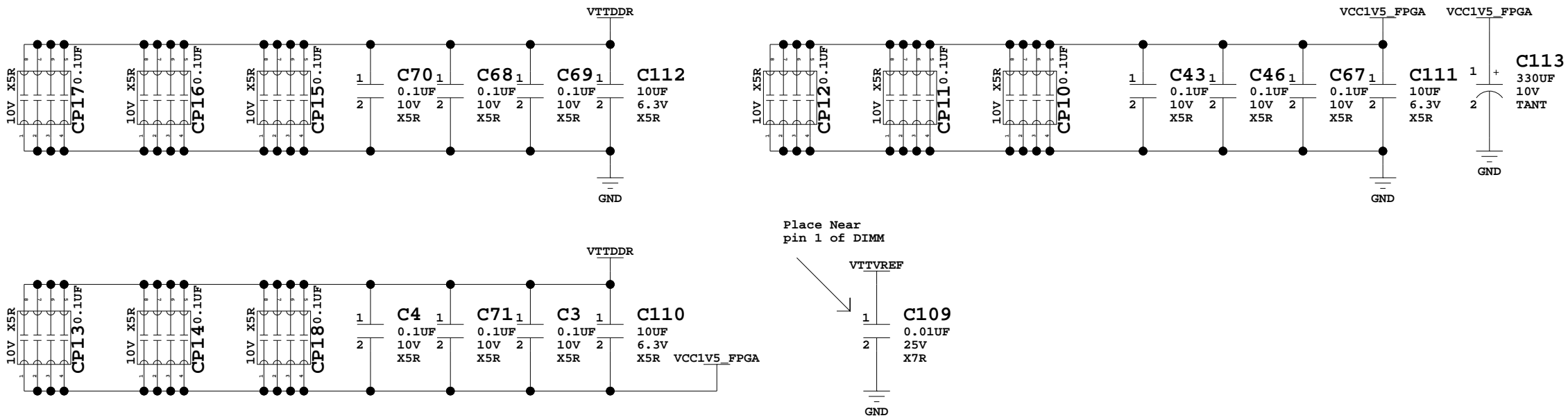
VCC1V5\_FPGA




FPGA Banks 32

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		FPGA Banks 12, 32 SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	12-21-2012_12:08	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	13 of 57	Drawn By	DN





SODIMM B DECOUPLING

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		10/100/1000 PHY SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	15 of 57	Drawn By	DN

BANK 36  
XC7VX690TFFG1761

IO_0_VRN_36_M23	M23	NC	
IO_L1P_T0_36_H24	H24	FMC1_HPC_HB04_P	19
IO_L1N_T0_36_G24	G24	FMC1_HPC_HB04_N	19
IO_L2P_T0_36_J21	J21	FMC1_HPC_HB14_P	20
IO_L2N_T0_36_H21	H21	FMC1_HPC_HB14_N	20
IO_L3P_T0_DQS_36_H25	H25	FMC1_HPC_HB08_P	20
IO_L3N_T0_DQS_36_H26	H26	FMC1_HPC_HB08_N	19
IO_L4P_T0_36_G21	G21	FMC1_HPC_HB18_P	20
IO_L4N_T0_36_G22	G22	FMC1_HPC_HB18_N	20
IO_L5P_T0_36_G26	G26	FMC1_HPC_HB07_P	20
IO_L5N_T0_36_G27	G27	FMC1_HPC_HB07_N	20
IO_L6P_T0_36_H23	H23	FMC1_HPC_HB09_P	20
IO_L6N_T0_VREF_36_G23	G23	FMC1_HPC_HB09_N	19
IO_L7P_T1_36_G28	G28	FMC1_HPC_HB03_P	19
IO_L7N_T1_36_G29	G29	FMC1_HPC_HB03_N	19
IO_L8P_T1_36_K28	K28	FMC1_HPC_HB02_P	19
IO_L8N_T1_36_J28	J28	FMC1_HPC_HB02_N	19
IO_L9P_T1_DQS_36_H28	H28	FMC1_HPC_HB01_P	19
IO_L9N_T1_DQS_36_H29	H29	FMC1_HPC_HB01_N	20
IO_L10P_T1_36_K27	K27	FMC1_HPC_HB05_P	20
IO_L10N_T1_36_J27	J27	FMC1_HPC_HB05_N	19
IO_L11P_T1_SRCC_36_K24	K24	FMC1_HPC_HB12_P	19
IO_L11N_T1_SRCC_36_K25	K25	FMC1_HPC_HB12_N	19
IO_L12P_T1_MRCC_36_J25	J25	FMC1_HPC_HB00_CC_P	20
IO_L12N_T1_MRCC_36_J26	J26	FMC1_HPC_HB00_CC_N	20
IO_L13P_T2_MRCC_36_M24	M24	FMC1_HPC_HB17_CC_P	20
IO_L13N_T2_MRCC_36_L24	L24	FMC1_HPC_HB17_CC_N	20
IO_L14P_T2_SRCC_36_K23	K23	FMC1_HPC_HB06_CC_P	20
IO_L14N_T2_SRCC_36_J23	J23	FMC1_HPC_HB06_CC_N	20
IO_L15P_T2_DQS_36_M22	M22	FMC1_HPC_HB10_P	20
IO_L15N_T2_DQS_36_L22	L22	FMC1_HPC_HB10_N	20
IO_L16P_T2_36_L25	L25	FMC1_HPC_HB19_P	19
IO_L16N_T2_36_L26	L26	FMC1_HPC_HB19_N	19
IO_L17P_T2_36_K22	K22	FMC1_HPC_HB11_P	20
IO_L17N_T2_36_J22	J22	FMC1_HPC_HB11_N	20
IO_L18P_T2_36_M21	M21	FMC1_HPC_HB15_P	20
IO_L18N_T2_36_L21	L21	FMC1_HPC_HB15_N	20
IO_L19P_T3_36_P21	P21	FMC1_HPC_HB20_P	19
IO_L19N_T3_VREF_36_N21	N21	FMC1_HPC_HB20_N	19
IO_L20P_T3_36_P25	P25	FMC1_HPC_HB13_P	19
IO_L20N_T3_36_P26	P26	FMC1_HPC_HB13_N	19
IO_L21P_T3_DQS_36_P22	P22	FMC1_HPC_HB21_P	19
IO_L21N_T3_DQS_36_P23	P23	FMC1_HPC_HB21_N	19
IO_L22P_T3_36_N25	N25	FMC1_HPC_HB16_P	19
IO_L22N_T3_36_N26	N26	FMC1_HPC_HB16_N	19
IO_L23P_T3_36_N23	N23	NC	
IO_L23N_T3_36_N24	N24	NC	
IO_L24P_T3_36_M27	M27	NC	
IO_L24N_T3_36_L27	L27	NC	
IO_25_VRP_36_M26	M26	NC	

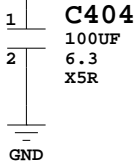
FMC1\_VIO\_B\_M2C

G25	VCCO_36_G25
H22	VCCO_36_H22
J29	VCCO_36_J29
K26	VCCO_36_K26
L23	VCCO_36_L23
N27	VCCO_36_N27
P24	VCCO_36_P24

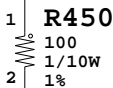
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SOC\_IRON\_690T\_FF1761

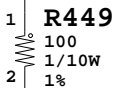
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VCC1V8\_FPGA



VRN\_19  
VRP\_19



BANK 19  
XC7VX690TFFG1761

IO_0_VRN_19_L36	L36	VRN_19	16
IO_L1P_T0_19_E40	E40	NC	
IO_L1N_T0_19_D40	D40	NC	
IO_L2P_T0_19_A40	A40	NC	
IO_L2N_T0_19_A41	A41	NC	
IO_L3P_T0_DQS_19_D41	D41	NC	
IO_L3N_T0_DQS_19_D42	D42	NC	
IO_L4P_T0_19_B41	B41	NC	
IO_L4N_T0_19_B42	B42	NC	
IO_L5P_T0_19_F42	F42	NC	
IO_L5N_T0_19_E42	E42	NC	
IO_L6P_T0_19_C40	C40	NC	
IO_L6N_T0_VREF_19_C41	C41	NC	
IO_L7P_T1_19_H40	H40	FMC1_HPC_LA04_P	20
IO_L7N_T1_19_H41	H41	FMC1_HPC_LA04_N	20
IO_L8P_T1_19_H39	H39	FMC1_HPC_LA13_P	18
IO_L8N_T1_19_G39	G39	FMC1_HPC_LA13_N	18
IO_L9P_T1_DQS_19_G41	G41	FMC1_HPC_LA07_P	20
IO_L9N_T1_DQS_19_G42	G42	FMC1_HPC_LA07_N	20
IO_L10P_T1_19_F40	F40	FMC1_HPC_LA11_P	20
IO_L10N_T1_19_F41	F41	FMC1_HPC_LA11_N	20
IO_L11P_T1_SRCC_19_J40	J40	FMC1_HPC_LA01_CC_P	18
IO_L11N_T1_SRCC_19_J41	J41	FMC1_HPC_LA01_CC_N	18
IO_L12P_T1_MRCC_19_K39	K39	FMC1_HPC_LA00_CC_P	19
IO_L12N_T1_MRCC_19_K40	K40	FMC1_HPC_LA00_CC_N	19
IO_L13P_T2_MRCC_19_L39	L39	FMC1_HPC_CLK0_M2C_P	20
IO_L13N_T2_MRCC_19_L40	L40	FMC1_HPC_CLK0_M2C_N	20
IO_L14P_T2_SRCC_19_M41	M41	FMC1_HPC_LA05_P	18
IO_L14N_T2_SRCC_19_L41	L41	FMC1_HPC_LA05_N	18
IO_L15P_T2_DQS_19_K42	K42	FMC1_HPC_LA06_P	18
IO_L15N_T2_DQS_19_J42	J42	FMC1_HPC_LA06_N	18
IO_L16P_T2_19_M42	M42	FMC1_HPC_LA03_P	19
IO_L16N_T2_19_L42	L42	FMC1_HPC_LA03_N	19
IO_L17P_T2_19_K37	K37	FMC1_HPC_LA16_P	19
IO_L17N_T2_19_K38	K38	FMC1_HPC_LA16_N	19
IO_L18P_T2_19_M36	M36	FMC1_HPC_LA15_P	20
IO_L18N_T2_19_L37	L37	FMC1_HPC_LA15_N	20
IO_L19P_T3_19_P41	P41	FMC1_HPC_LA02_P	20
IO_L19N_T3_VREF_19_N41	N41	FMC1_HPC_LA02_N	20
IO_L20P_T3_19_M37	M37	FMC1_HPC_LA08_P	19
IO_L20N_T3_19_M38	M38	FMC1_HPC_LA08_N	19
IO_L21P_T3_DQS_19_R42	R42	FMC1_HPC_LA09_P	18
IO_L21N_T3_DQS_19_P42	P42	FMC1_HPC_LA09_N	18
IO_L22P_T3_19_N38	N38	FMC1_HPC_LA10_P	18
IO_L22N_T3_19_M39	M39	FMC1_HPC_LA10_N	18
IO_L23P_T3_19_R40	R40	FMC1_HPC_LA12_P	19
IO_L23N_T3_19_P40	P40	FMC1_HPC_LA12_N	19
IO_L24P_T3_19_N39	N39	FMC1_HPC_LA14_P	18
IO_L24N_T3_19_N40	N40	FMC1_HPC_LA14_N	18
IO_25_VRP_19_N36	N36	VRP_19	16

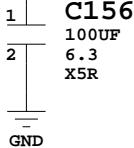
VCC1V8\_FPGA

B40	VCCO_19_B40
E41	VCCO_19_E41
H42	VCCO_19_H42
J39	VCCO_19_J39
M40	VCCO_19_M40
N37	VCCO_19_N37
R41	VCCO_19_R41

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SOC\_IRON\_690T\_FF1761

VCC1V8\_FPGA



FPGA Banks 36, 19



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

Title: FPGA Banks 18, 19  
SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

Date: 12-21-2012\_13:14 Ver: 1.0

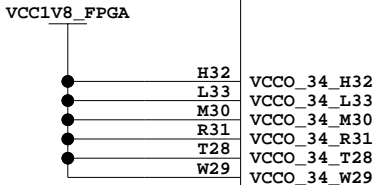
Sheet Size: B Rev: 01

Sheet 16 of 57 Drawn By DN



BANK 34  
XC7VX690TFFG1761

IO_0_VRN_34_R29	VRN_34	17
IO_L1P_T0_34_K35	NC	
IO_L1N_T0_34_J35	NC	
IO_L2P_T0_34_J32	NC	
IO_L2N_T0_34_J33	NC	
IO_L3P_T0_DQS_34_K33	NC	
IO_L3N_T0_DQS_34_K34	NC	
IO_L4P_T0_34_L34	NC	
IO_L4N_T0_34_L35	NC	
IO_L5P_T0_34_M33	NC	
IO_L5N_T0_34_M34	NC	
IO_L6P_T0_34_H34	NC	
IO_L6N_T0_VREF_34_H35	NC	
IO_L7P_T1_34_K29	FMC1 HPC LA25_P	19
IO_L7N_T1_34_K30	FMC1 HPC LA25_N	19
IO_L8P_T1_34_J30	FMC1 HPC LA26_P	18
IO_L8N_T1_34_H30	FMC1 HPC LA26_N	18
IO_L9P_T1_DQS_34_L29	FMC1 HPC LA28_P	20
IO_L9N_T1_DQS_34_L30	FMC1 HPC LA28_N	20
IO_L10P_T1_34_J31	FMC1 HPC LA27_P	18
IO_L10N_T1_34_H31	FMC1 HPC LA27_N	18
IO_L11P_T1_SRCC_34_M32	FMC1 HPC LA18_CC_P	18
IO_L11N_T1_SRCC_34_L32	FMC1 HPC LA18_CC_N	18
IO_L12P_T1_MRCC_34_L31	FMC1 HPC LA17_CC_P	18
IO_L12N_T1_MRCC_34_K32	FMC1 HPC LA17_CC_N	18
IO_L13P_T2_MRCC_34_N30	FMC1 HPC CLK1_M2C_P	19
IO_L13N_T2_MRCC_34_M31	FMC1 HPC CLK1_M2C_N	19
IO_L14P_T2_SRCC_34_P30	FMC1 HPC LA23_P	18
IO_L14N_T2_SRCC_34_N31	FMC1 HPC LA23_N	18
IO_L15P_T2_DQS_34_M28	FMC1 HPC LA31_P	19
IO_L15N_T2_DQS_34_M29	FMC1 HPC LA31_N	19
IO_L16P_T2_34_R28	FMC1 HPC LA22_P	19
IO_L16N_T2_34_P28	FMC1 HPC LA22_N	19
IO_L17P_T2_34_N28	FMC1 HPC LA21_P	20
IO_L17N_T2_34_N29	FMC1 HPC LA21_N	20
IO_L18P_T2_34_R30	FMC1 HPC LA24_P	20
IO_L18N_T2_34_P31	FMC1 HPC LA24_N	20
IO_L19P_T3_34_U31	FMC1 HPC LA33_P	19
IO_L19N_T3_VREF_34_T31	FMC1 HPC LA33_N	19
IO_L20P_T3_34_V30	FMC1 HPC LA30_P	20
IO_L20N_T3_34_V31	FMC1 HPC LA30_N	20
IO_L21P_T3_DQS_34_T29	FMC1 HPC LA29_P	19
IO_L21N_T3_DQS_34_T30	FMC1 HPC LA29_N	19
IO_L22P_T3_34_W30	FMC1 HPC LA19_P	20
IO_L22N_T3_34_W31	FMC1 HPC LA19_N	20
IO_L23P_T3_34_V29	FMC1 HPC LA32_P	20
IO_L23N_T3_34_U29	FMC1 HPC LA32_N	20
IO_L24P_T3_34_Y29	FMC1 HPC LA20_P	19
IO_L24N_T3_34_Y30	FMC1 HPC LA20_N	19
IO_25_VRP_34_U28	VRP_34	17

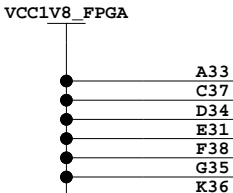


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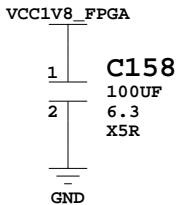
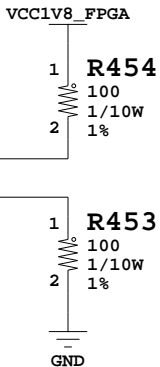
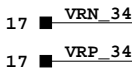
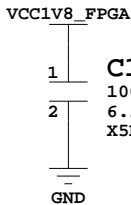
BANK 35  
XC7VX690TFFG1761

IO_0_VRN_35_G31	NC	
IO_L1P_T0_AD4P_35_B36	FMC1 HPC HA13_P	19
IO_L1N_T0_AD4N_35_A37	FMC1 HPC HA13_N	19
IO_L2P_T0_AD12P_35_B34	FMC1 HPC HA20_P	19
IO_L2N_T0_AD12N_35_A34	FMC1 HPC HA20_N	19
IO_L3P_T0_DQS_AD5P_35_B39	FMC1 HPC HA16_P	19
IO_L3N_T0_DQS_AD5N_35_A39	FMC1 HPC HA16_N	19
IO_L4P_T0_35_A35	FMC1 HPC HA23_P	20
IO_L4N_T0_35_A36	FMC1 HPC HA23_N	20
IO_L5P_T0_AD13P_35_C38	FMC1 HPC HA07_P	20
IO_L5N_T0_AD13N_35_C39	FMC1 HPC HA07_N	20
IO_L6P_T0_35_B37	FMC1 HPC HA12_P	19
IO_L6N_T0_VREF_35_B38	FMC1 HPC HA12_N	19
IO_L7P_T1_AD6P_35_E32	FMC1 HPC HA09_P	19
IO_L7N_T1_AD6N_35_D32	FMC1 HPC HA09_N	19
IO_L8P_T1_AD14P_35_B32	FMC1 HPC HA19_P	19
IO_L8N_T1_AD14N_35_B33	FMC1 HPC HA19_N	19
IO_L9P_T1_DQS_AD7P_35_E33	FMC1 HPC HA02_P	20
IO_L9N_T1_DQS_AD7N_35_D33	FMC1 HPC HA02_N	20
IO_L10P_T1_AD15P_35_C33	FMC1 HPC HA15_P	19
IO_L10N_T1_AD15N_35_C34	FMC1 HPC HA15_N	19
IO_L11P_T1_SRCC_35_D35	FMC1 HPC HA01_CC_P	19
IO_L11N_T1_SRCC_35_D36	FMC1 HPC HA01_CC_N	19
IO_L12P_T1_MRCC_35_C35	FMC1 HPC HA17_CC_P	19
IO_L12N_T1_MRCC_35_C36	FMC1 HPC HA17_CC_N	20
IO_L13P_T2_MRCC_35_E34	FMC1 HPC HA00_CC_P	19
IO_L13N_T2_MRCC_35_E35	FMC1 HPC HA00_CC_N	19
IO_L14P_T2_SRCC_35_D37	FMC1 HPC HA21_P	20
IO_L14N_T2_SRCC_35_D38	FMC1 HPC HA21_N	20
IO_L15P_T2_DQS_35_G32	FMC1 HPC HA05_P	19
IO_L15N_T2_DQS_35_F32	FMC1 HPC HA05_N	19
IO_L16P_T2_35_F36	FMC1 HPC HA22_P	20
IO_L16N_T2_35_F37	FMC1 HPC HA22_N	20
IO_L17P_T2_35_F34	FMC1 HPC HA04_P	19
IO_L17N_T2_35_F35	FMC1 HPC HA04_N	19
IO_L18P_T2_35_H33	FMC1 HPC HA03_P	19
IO_L18N_T2_35_G33	FMC1 HPC HA03_N	20
IO_L19P_T3_35_E37	FMC1 HPC HA14_P	20
IO_L19N_T3_VREF_35_E38	FMC1 HPC HA14_N	20
IO_L20P_T3_35_G36	FMC1 HPC HA06_P	20
IO_L20N_T3_35_G37	FMC1 HPC HA06_N	20
IO_L21P_T3_DQS_35_F39	FMC1 HPC HA18_P	20
IO_L21N_T3_DQS_35_E39	FMC1 HPC HA18_N	20
IO_L22P_T3_35_J37	FMC1 HPC HA11_P	20
IO_L22N_T3_35_J38	FMC1 HPC HA11_N	20
IO_L23P_T3_35_H38	FMC1 HPC HA10_P	20
IO_L23N_T3_35_G38	FMC1 HPC HA10_N	20
IO_L24P_T3_35_J36	FMC1 HPC HA08_P	19
IO_L24N_T3_35_H36	FMC1 HPC HA08_N	19
IO_25_VRP_35_G34	NC	



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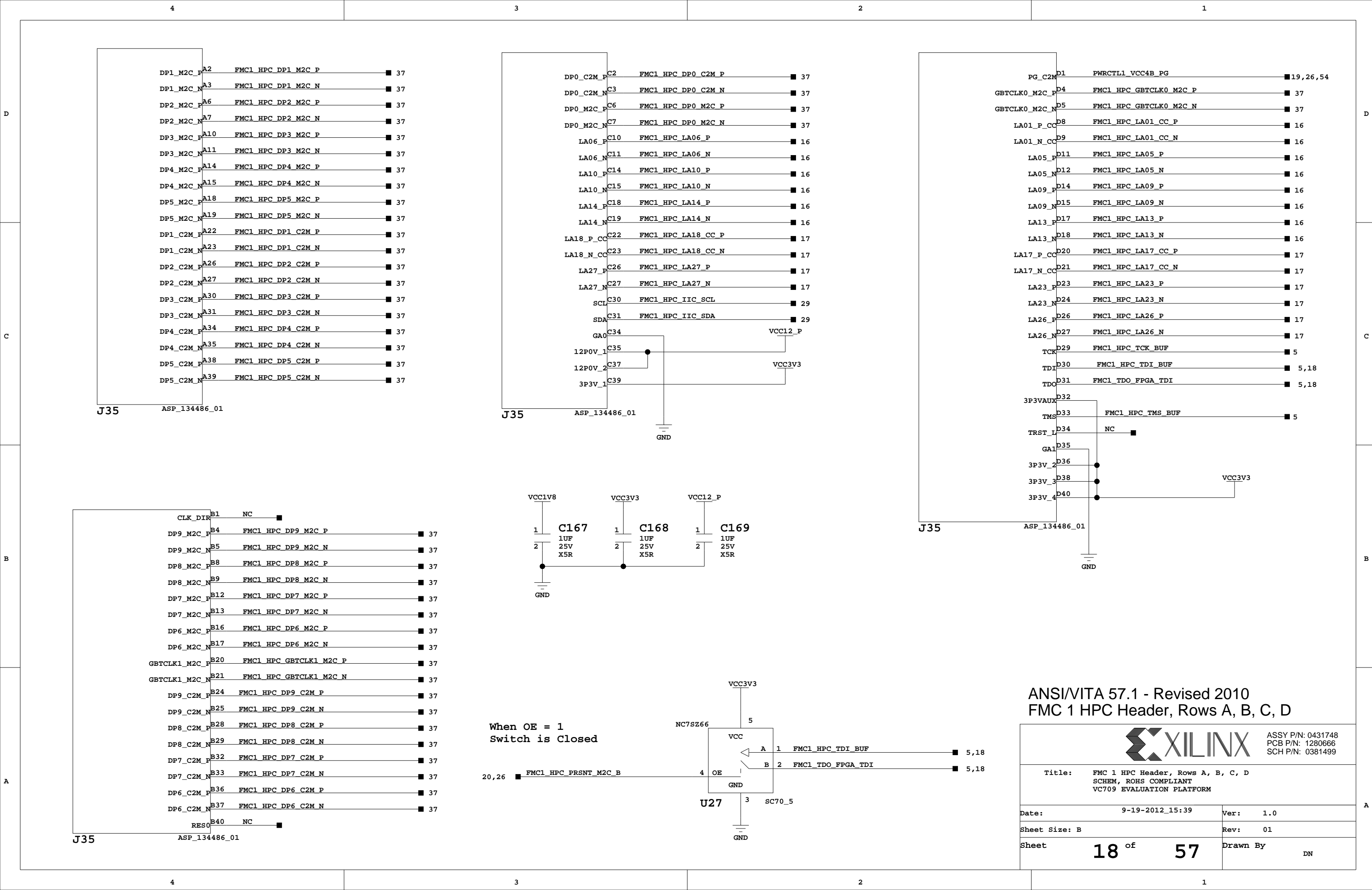


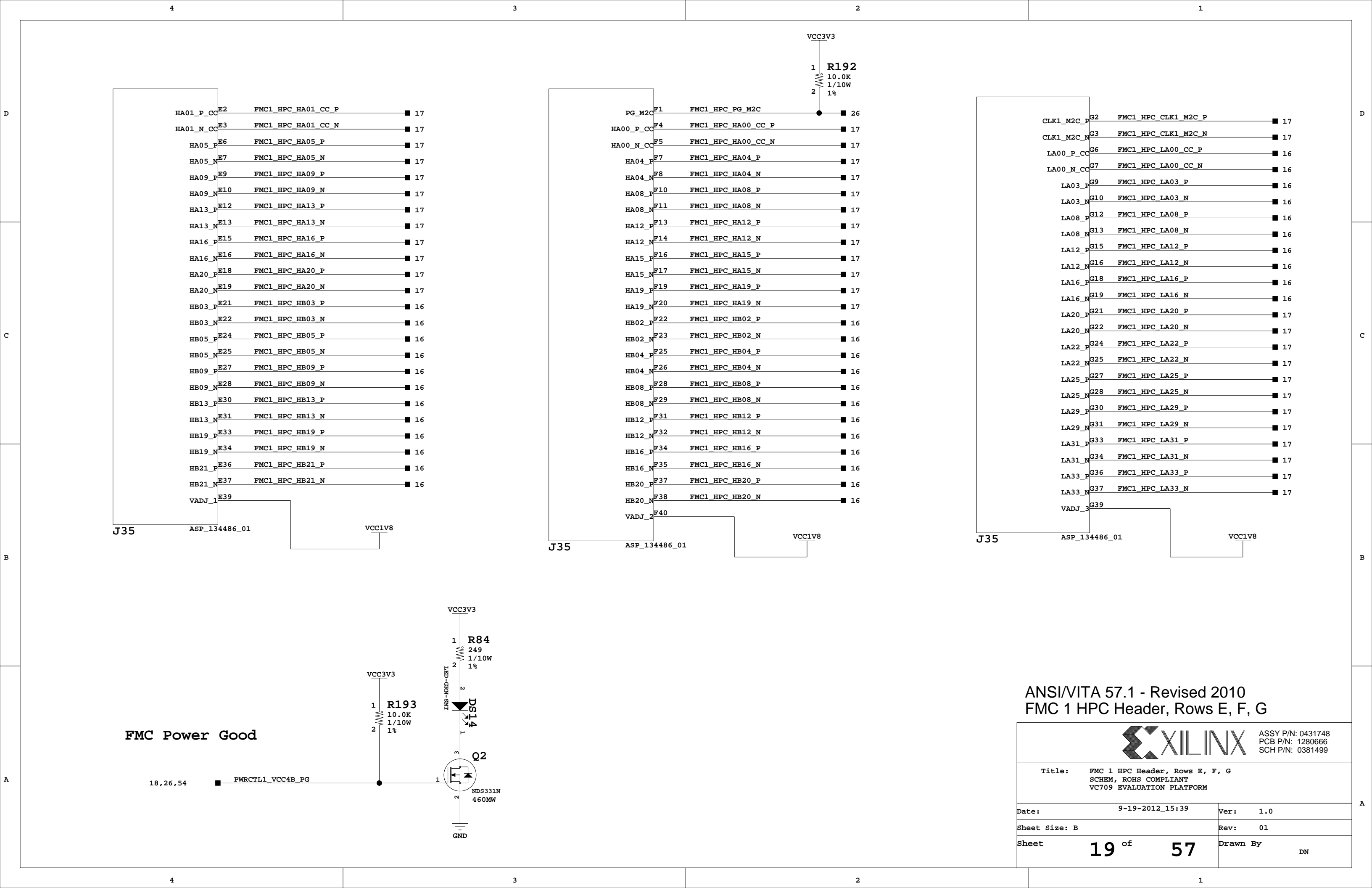
FPGA Banks 34,35 FMC1

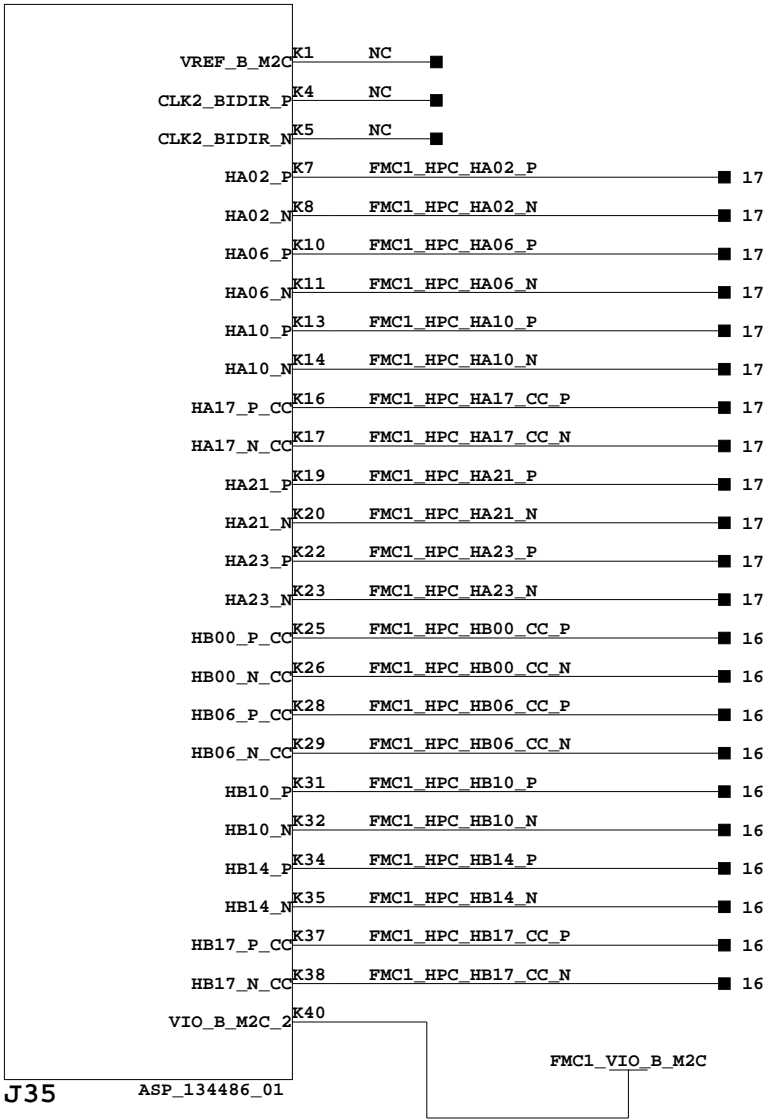
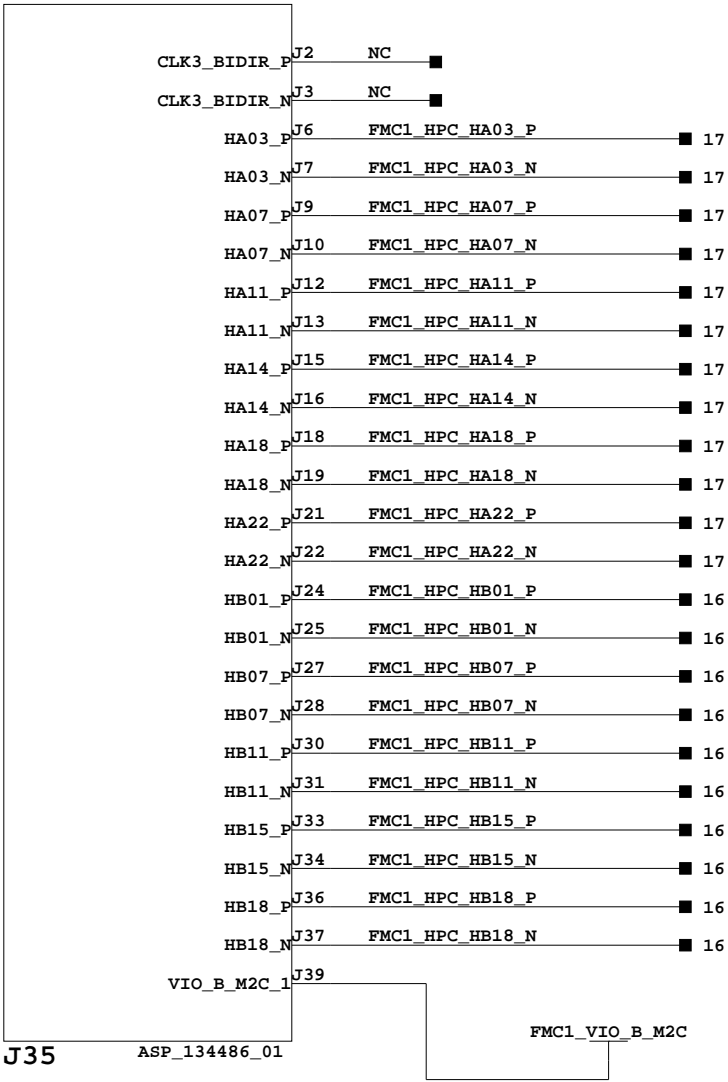
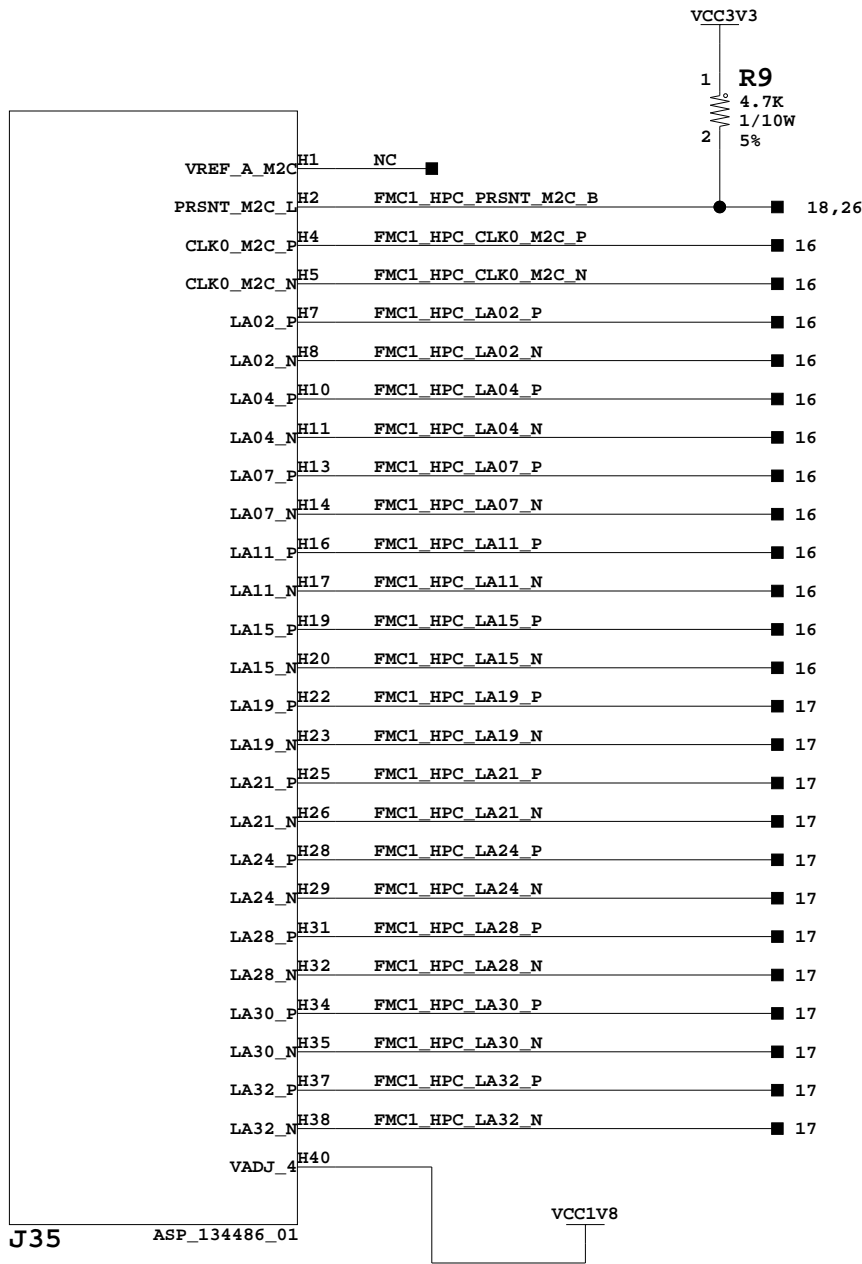


ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499


Title: FPGA Banks 34, 35 SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date: 12-21-2012_12:08	Ver: 1.0
Sheet Size: B	Rev: 01
Sheet 17 of 57	Drawn By DN

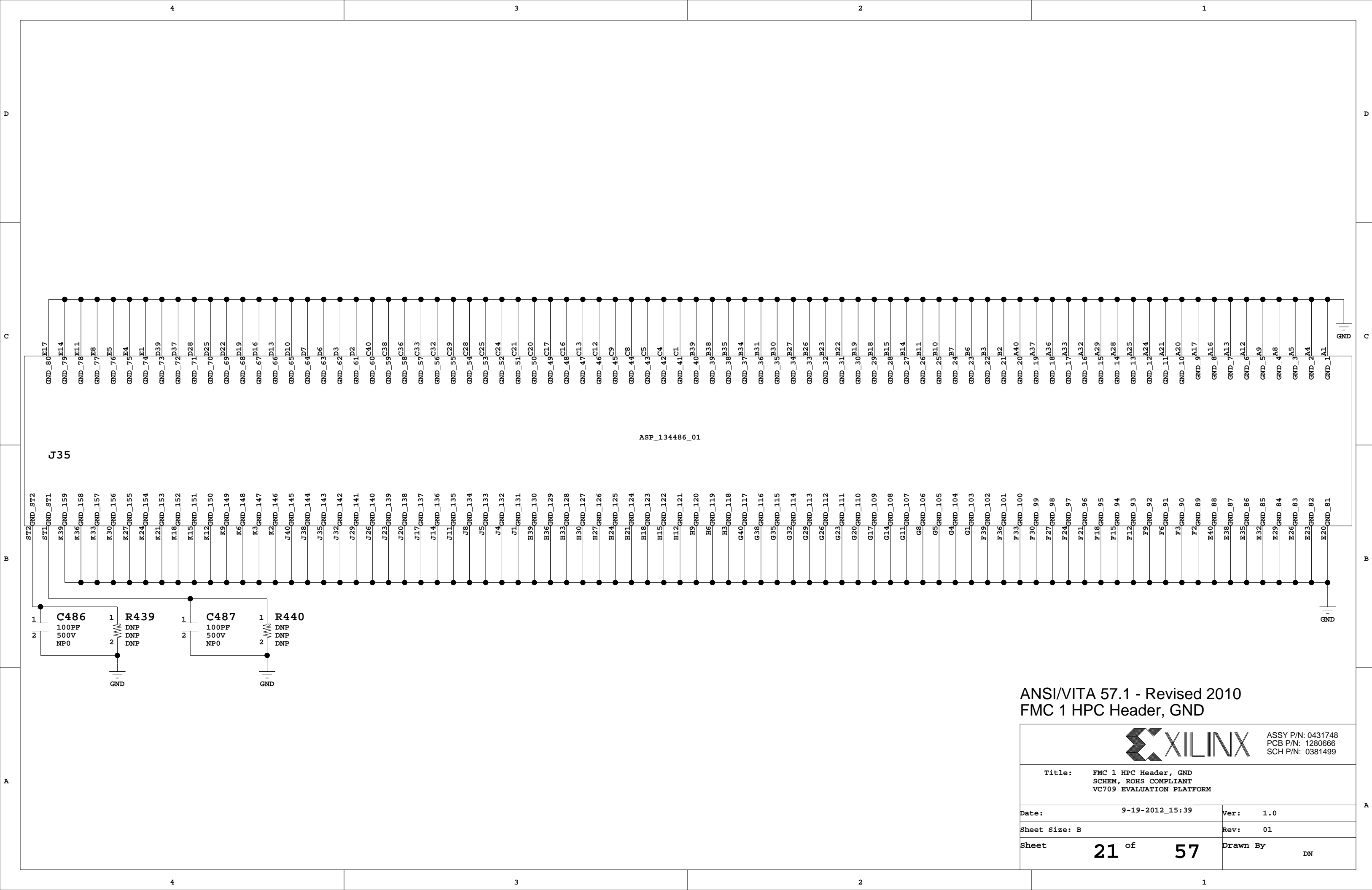






ANSI/VITA 57.1 - Revised 2010  
FMC 1 HPC Header, Rows H, J, K

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		FMC 1 HPC Header, Rows H, J, K SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	20 of 57	Drawn By	DN



SOC\_V7\_690T\_FF1761\_IRON

BANK 13  
XC7VX690TFFG1761

IO\_0\_VRN\_13\_AR35  
IO\_L1P\_T0\_13\_AY34  
IO\_L1N\_T0\_13\_BA35  
IO\_L2P\_T0\_13\_AV36  
IO\_L2N\_T0\_13\_AW36  
IO\_L3P\_T0\_DQS\_13\_BA34  
IO\_L3N\_T0\_DQS\_13\_BB34  
IO\_L4P\_T0\_13\_BA36  
IO\_L4N\_T0\_13\_BB36  
IO\_L5P\_T0\_13\_BB32  
IO\_L5N\_T0\_13\_BB33  
IO\_L6P\_T0\_13\_AW35  
IO\_L6N\_T0\_VREF\_13\_AY35  
IO\_L7P\_T1\_13\_AT34  
IO\_L7N\_T1\_13\_AU34  
IO\_L8P\_T1\_13\_AT36  
IO\_L8N\_T1\_13\_AU36  
IO\_L9P\_T1\_DQS\_13\_AT32  
IO\_L9N\_T1\_DQS\_13\_AU33  
IO\_L10P\_T1\_13\_AR34  
IO\_L10N\_T1\_13\_AT35  
IO\_L11P\_T1\_SRCC\_13\_AU32  
IO\_L11N\_T1\_SRCC\_13\_AV33  
IO\_L12P\_T1\_MRCC\_13\_AW32  
IO\_L12N\_T1\_MRCC\_13\_AW33  
IO\_L13P\_T2\_MRCC\_13\_AV34  
IO\_L13N\_T2\_MRCC\_13\_AV35  
IO\_L14P\_T2\_SRCC\_13\_AY32  
IO\_L14N\_T2\_SRCC\_13\_AY33  
IO\_L15P\_T2\_DQS\_13\_BA31  
IO\_L15N\_T2\_DQS\_13\_BA32  
IO\_L16P\_T2\_13\_AW30  
IO\_L16N\_T2\_13\_AY30  
IO\_L17P\_T2\_13\_BA30  
IO\_L17N\_T2\_13\_BB31  
IO\_L18P\_T2\_13\_AV30  
IO\_L18N\_T2\_13\_AW31  
IO\_L19P\_T3\_13\_AR30  
IO\_L19N\_T3\_VREF\_13\_AT30  
IO\_L20P\_T3\_13\_AU31  
IO\_L20N\_T3\_13\_AV31  
IO\_L21P\_T3\_DQS\_13\_AN30  
IO\_L21N\_T3\_DQS\_13\_AP30  
IO\_L22P\_T3\_13\_AP32  
IO\_L22N\_T3\_13\_AR32  
IO\_L23P\_T3\_13\_AN31  
IO\_L23N\_T3\_13\_AP31  
IO\_L24P\_T3\_13\_AP33  
IO\_L24N\_T3\_13\_AR33  
IO\_25\_VRP\_13\_AT31

AR35 GPIO\_LED\_4\_LS 26  
AY34 NC  
BA35 NC  
AV36 NC  
AW36 NC  
BA34 NC  
BB34 NC  
BA36 NC  
BB36 NC  
BB32 NC  
BB33 NC  
AW35 NC  
AY35 NC  
AT34 NC  
AU34 SI5324 INT\_ALM\_LS 26  
AT36 SI5324\_RST\_LS 26  
AU36 USB\_UART\_RX 6  
AT32 USB\_UART\_RTS 6  
AU33 USB\_UART\_TX 6  
AR34 USB\_UART\_CTS 6  
AT35 IIC\_SCL\_MAIN\_LS 29  
AU32 IIC\_SDA\_MAIN\_LS 29  
AV33 PCIE\_WAKE\_B\_LS 26  
AW32 REC\_CLOCK\_C\_P 4  
AW33 REC\_CLOCK\_C\_N 4  
AV34 NC  
AV35 PCIE\_PERST\_LS 26  
AY32 NC  
AY33 GPIO\_DIP\_SW1 25  
BA31 GPIO\_DIP\_SW2 25  
BA32 GPIO\_DIP\_SW3 25  
AW30 GPIO\_DIP\_SW4 25  
AY30 GPIO\_DIP\_SW5 25  
BA30 GPIO\_DIP\_SW6 25  
BB31 GPIO\_DIP\_SW7 25  
AV30 GPIO\_DIP\_SW0 25  
AW31 NC  
AR30 NC  
AT30 NC  
AU31 NC  
AV31 NC  
AN30 NC  
AP30 NC  
AP32 NC  
AR32 NC  
AN31 NC  
AP31 NC  
AP33 NC  
AR33 NC  
AT31 NC

VCC1V8\_FPGA

AP34 VCCO\_13\_AP34  
AR31 VCCO\_13\_AR31  
AU35 VCCO\_13\_AU35  
AV32 VCCO\_13\_AV32  
AY36 VCCO\_13\_AY36  
BA33 VCCO\_13\_BA33  
BB30 VCCO\_13\_BB30

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SOC\_IRON\_690T\_FF1761

VCC1V8\_FPGA

1 C159  
100UF  
2 6.3  
X5R  
GND



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

Title: USER IO  
SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

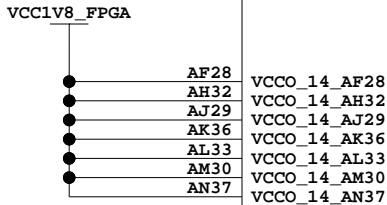
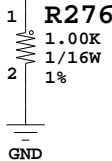
Date: 12-21-2012\_12:08 Ver: 1.0

Sheet Size: B Rev: 01

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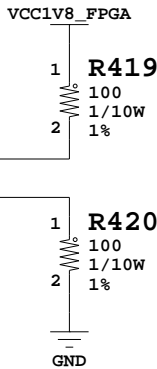
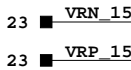
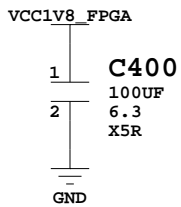
BANK 14  
XC7VX690TFFG1761

IO_0_VRN_14_AH35	AH35	NC	
IO_L1P_T0_D00_MOSI_14_AM36	AM36	FLASH_D0	24
IO_L1N_T0_D01_DIN_14_AN36	AN36	FLASH_D1	24
IO_L2P_T0_D02_14_AJ36	AJ36	FLASH_D2	24
IO_L2N_T0_D03_14_AJ37	AJ37	FLASH_D3	24
IO_L3P_T0_DQS_PUDC_B_14_AP36	AP36		
IO_L3N_T0_DQS_EMCCLK_14_AP37	AP37	FPGA_EMCCLK	5
IO_L4P_T0_D04_14_AK37	AK37	FLASH_D4	24
IO_L4N_T0_D05_14_AL37	AL37	FLASH_D5	24
IO_L5P_T0_D06_14_AN35	AN35	FLASH_D6	24
IO_L5N_T0_D07_14_AP35	AP35	FLASH_D7	24
IO_L6P_T0_FCS_B_14_AL36	AL36	FLASH_CE_B	24
IO_L6N_T0_D08_VREF_14_AM37	AM37	FLASH_D8	24
IO_L7P_T1_D09_14_AG33	AG33	FLASH_D9	24
IO_L7N_T1_D10_14_AH33	AH33	FLASH_D10	24
IO_L8P_T1_D11_14_AK35	AK35	FLASH_D11	24
IO_L8N_T1_D12_14_AL35	AL35	FLASH_D12	24
IO_L9P_T1_DQS_14_AH31	AH31	NC	
IO_L9N_T1_DQS_D13_14_AJ31	AJ31	FLASH_D13	24
IO_L10P_T1_D14_14_AH34	AH34	FLASH_D14	24
IO_L10N_T1_D15_14_AJ35	AJ35	FLASH_D15	24
IO_L11P_T1_SRCC_14_AJ33	AJ33	NC	
IO_L11N_T1_SRCC_14_AK33	AK33	NC	
IO_L12P_T1_MRCC_14_AK34	AK34	USER_CLOCK_P	3
IO_L12N_T1_MRCC_14_AL34	AL34	USER_CLOCK_N	3
IO_L13P_T2_MRCC_14_AJ32	AJ32	USER_SMA_CLOCK_P	3
IO_L13N_T2_MRCC_14_AK32	AK32	USER_SMA_CLOCK_N	3
IO_L14P_T2_SRCC_14_AL31	AL31	NC	
IO_L14N_T2_SRCC_14_AL32	AL32	FMC_C2M_PG_LS	26
IO_L15P_T2_DQS_RDWR_B_14_AM34	AM34	FLASH_WAIT	24
IO_L15N_T2_DQSDOUT_CSOB_14_AN34	AN34	FMC1_HPC_PG_M2C_LS	26
IO_L16P_T2_CSI_B_14_AM31	AM31	FMC1_HPC_PRSNT_M2C_B_LS	26
IO_L16N_T2_A15_D31_14_AM32	AM32	FLASH_A15	24
IO_L17P_T2_A14_D30_14_AM33	AM33	FLASH_A14	24
IO_L17N_T2_A13_D29_14_AN33	AN33	FLASH_A13	24
IO_L18P_T2_A12_D28_14_AL29	AL29	FLASH_A12	24
IO_L18N_T2_A11_D27_14_AL30	AL30	FLASH_A11	24
IO_L19P_T3_A10_D26_14_AH29	AH29	FLASH_A10	24
IO_L19N_T3A09D25_VREF_14_AH30	AH30	FLASH_A9	24
IO_L20P_T3_A08_D24_14_AJ30	AJ30	FLASH_A8	24
IO_L20N_T3_A07_D23_14_AK30	AK30	FLASH_A7	24
IO_L21P_T3_DQS_14_AF29	AF29	NC	
IO_L21N_T3_DQS_A06_D22_14_AG29	AG29	FLASH_A6	24
IO_L22P_T3_A05_D21_14_AK28	AK28	FLASH_A5	24
IO_L22N_T3_A04_D20_14_AK29	AK29	FLASH_A4	24
IO_L23P_T3_A03_D19_14_AF30	AF30	FLASH_A3	24
IO_L23N_T3_A02_D18_14_AG31	AG31	FLASH_A2	24
IO_L24P_T3_A01_D17_14_AH28	AH28	FLASH_A1	24
IO_L24N_T3_A00_D16_14_AJ28	AJ28	FLASH_A0	24
IO_25_VRP_14_AG32	AG32	NC	



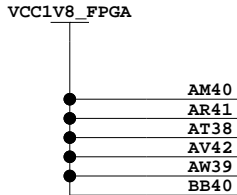
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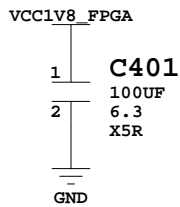
BANK 15  
XC7VX690TFFG1761

IO_0_VRN_15_AM38	AM38	VRN_15	23
IO_L1P_T0_AD0P_15_AN38	AN38	XADC_VAUX0P_R	27
IO_L1N_T0_AD0N_15_AP38	AP38	XADC_VAUX0N_R	27
IO_L2P_T0_AD8P_15_AM41	AM41	XADC_VAUX8P_R	27
IO_L2N_T0_AD8N_15_AM42	AM42	XADC_VAUX8N_R	27
IO_L3P_T0_DQS_AD1P_15_AR38	AR38	XADC_GPIO_0	27
IO_L3N_T0_DQS_AD1N_15_AR39	AR39	XADC_GPIO_1	27
IO_L4P_T0_15_AN40	AN40	XADC_GPIO_2	27
IO_L4N_T0_15_AN41	AN41	XADC_GPIO_3	27
IO_L5P_T0_AD9P_15_AR37	AR37	GPIO_LED_2_LS	26
IO_L5N_T0_AD9N_15_AT37	AT37	GPIO_LED_3_LS	26
IO_L6P_T0_15_AM39	AM39	GPIO_LED_0_LS	26
IO_L6N_T0_VREF_15_AN39	AN39	GPIO_LED_1_LS	26
IO_L7P_T1_AD2P_15_AP40	AP40	GPIO_SW_S	25
IO_L7N_T1_AD2N_15_AR40	AR40	GPIO_SW_N	25
IO_L8P_T1_AD10P_15_AP41	AP41	GPIO_LED_5_LS	26
IO_L8N_T1_AD10N_15_AP42	AP42	GPIO_LED_6_LS	26
IO_L9P_T1_DQS_AD3P_15_AT39	AT39	NC	
IO_L9N_T1_DQS_AD3N_15_AT40	AT40	NC	
IO_L10P_T1_AD11P_15_AR42	AR42	NC	
IO_L10N_T1_AD11N_15_AT42	AT42	NC	
IO_L11P_T1_SRCC_15_AU39	AU39	GPIO_LED_7_LS	26
IO_L11N_T1_SRCC_15_AV39	AV39	GPIO_SW_C	25
IO_L12P_T1_MRCC_15_AU38	AU38	GPIO_SW_E	25
IO_L12N_T1_MRCC_15_AV38	AV38	PMBUS_ALERT_LS	46
IO_L13P_T2_MRCC_15_AV40	AV40	CPU_RESET	25
IO_L13N_T2_MRCC_15_AW40	AW40	GPIO_SW_W	25
IO_L14P_T2_SRCC_15_AY39	AY39	PMBUS_DATA_LS	46
IO_L14N_T2_SRCC_15_AY40	AY40	NC	
IO_L15P_T2_DQS_15_AW37	AW37	PMBUS_CLK_LS	46
IO_L15N_T2_DQS_ADV_B_15_AY37	AY37	FLASH_ADV_B	24
IO_L16P_T2_A28_15_BA37	BA37	SM_FAN_PWM	46
IO_L16N_T2_A27_15_BB37	BB37	SM_FAN_TACH	46
IO_L17P_T2_A26_15_AW38	AW38	NC	
IO_L17N_T2_A25_15_AY38	AY38	NC	
IO_L18P_T2_A24_15_BB38	BB38	NC	
IO_L18N_T2_A23_15_BB39	BB39	FLASH_A23	24
IO_L19P_T3_A22_15_BA39	BA39	FLASH_A22	24
IO_L19N_T3_A21_VREF_15_BA40	BA40	FLASH_A21	24
IO_L20P_T3_A20_15_AT41	AT41	FLASH_A20	24
IO_L20N_T3_A19_15_AU42	AU42	FLASH_A19	24
IO_L21P_T3_DQS_15_AY42	AY42	IIC_MUX_RESET_B_LS	26
IO_L21N_T3_DQS_A18_15_BA42	BA42	FLASH_A18	24
IO_L22P_T3_A17_15_AU41	AU41	FLASH_A17	24
IO_L22N_T3_A16_15_AV41	AV41	FLASH_A16	24
IO_L23P_T3_FOE_B_15_BA41	BA41	FLASH_OE_B	24
IO_L23N_T3_FWE_B_15_BB41	BB41	FLASH_FWE_B	24
IO_L24P_T3_RS1_15_AW41	AW41	FLASH_A25	7,24
IO_L24N_T3_RS0_15_AW42	AW42	FLASH_A24	7,24
IO_25_VRP_15_AU37	AU37	VRP_15	23



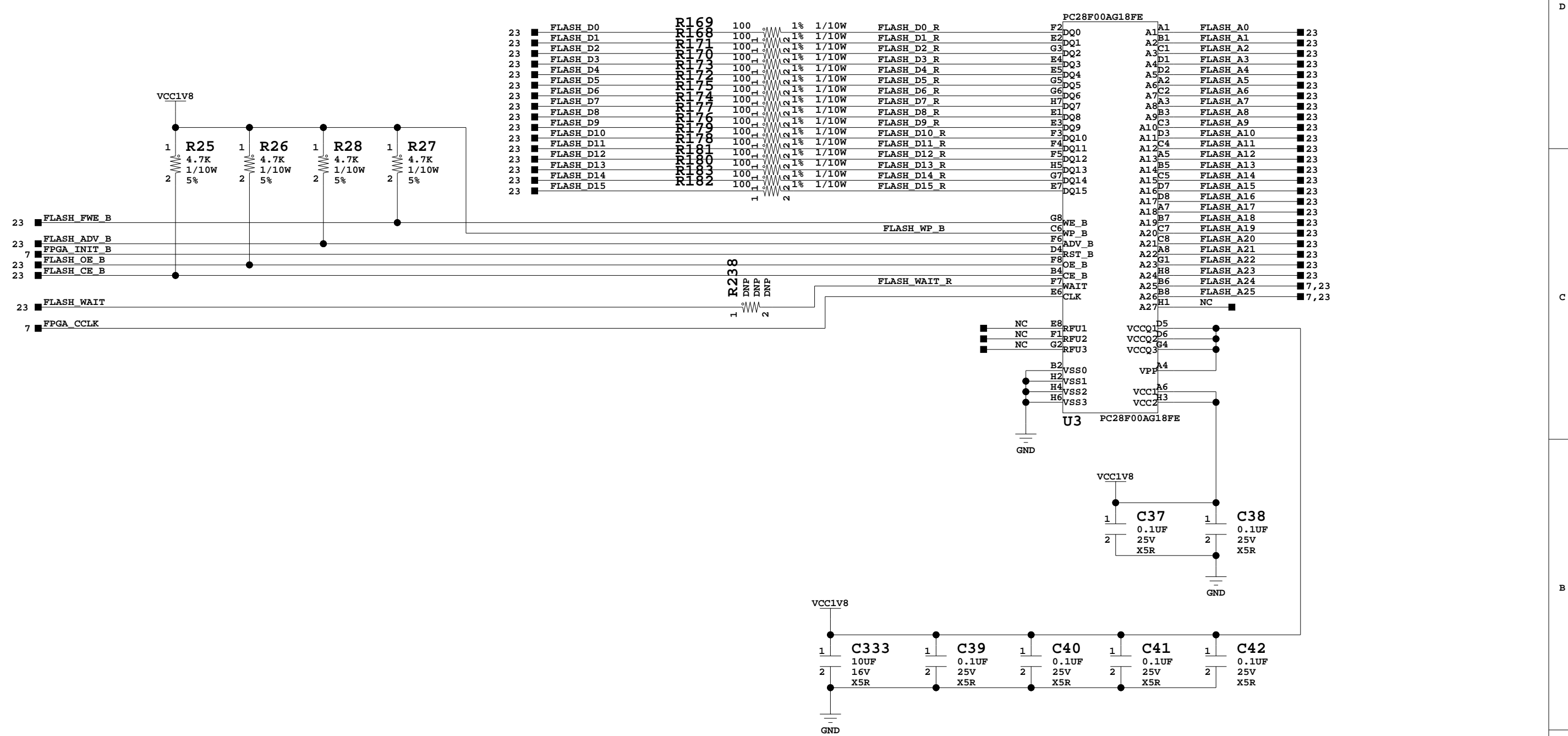
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FPGA Banks 14, 15

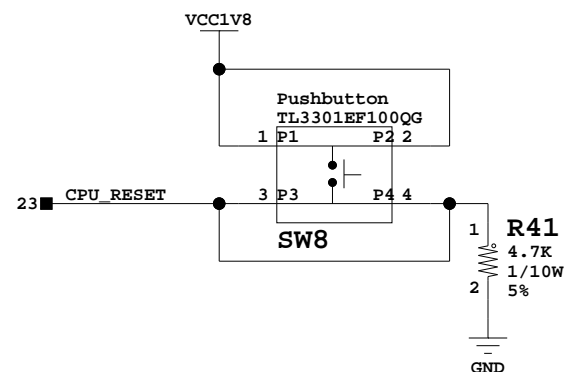
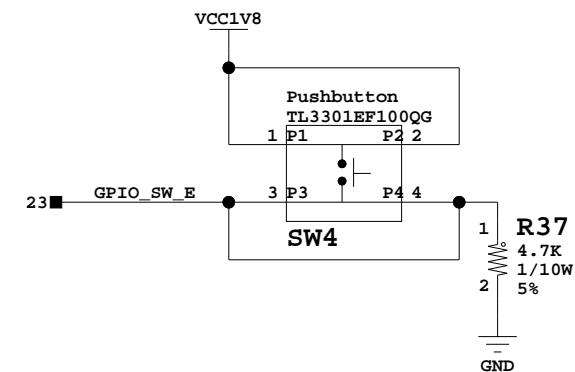
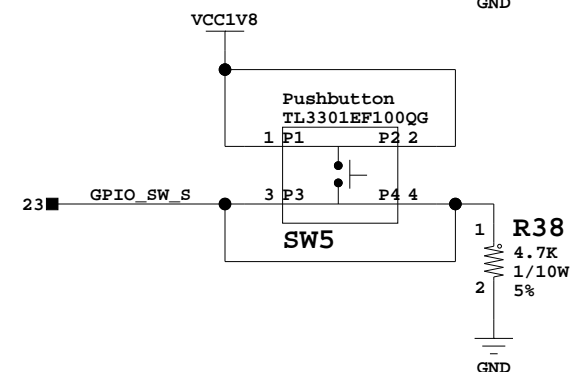
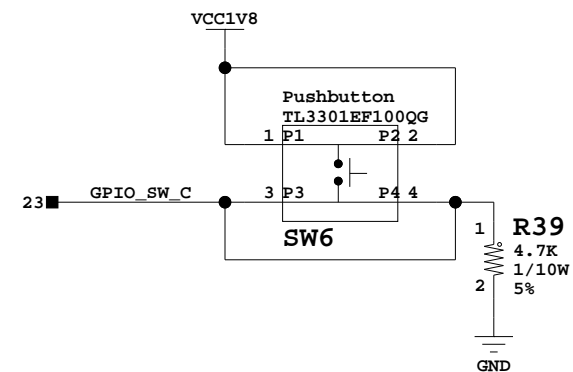
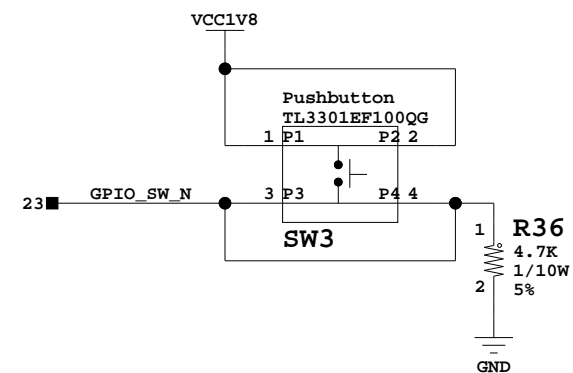
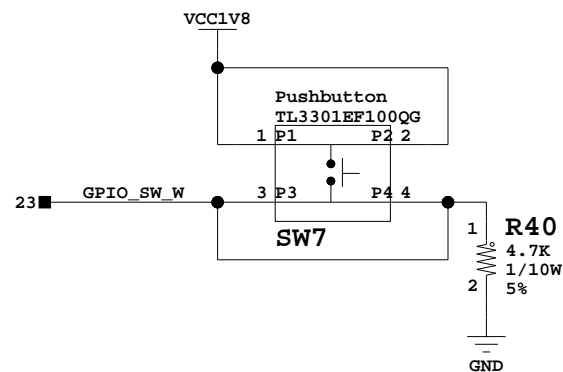
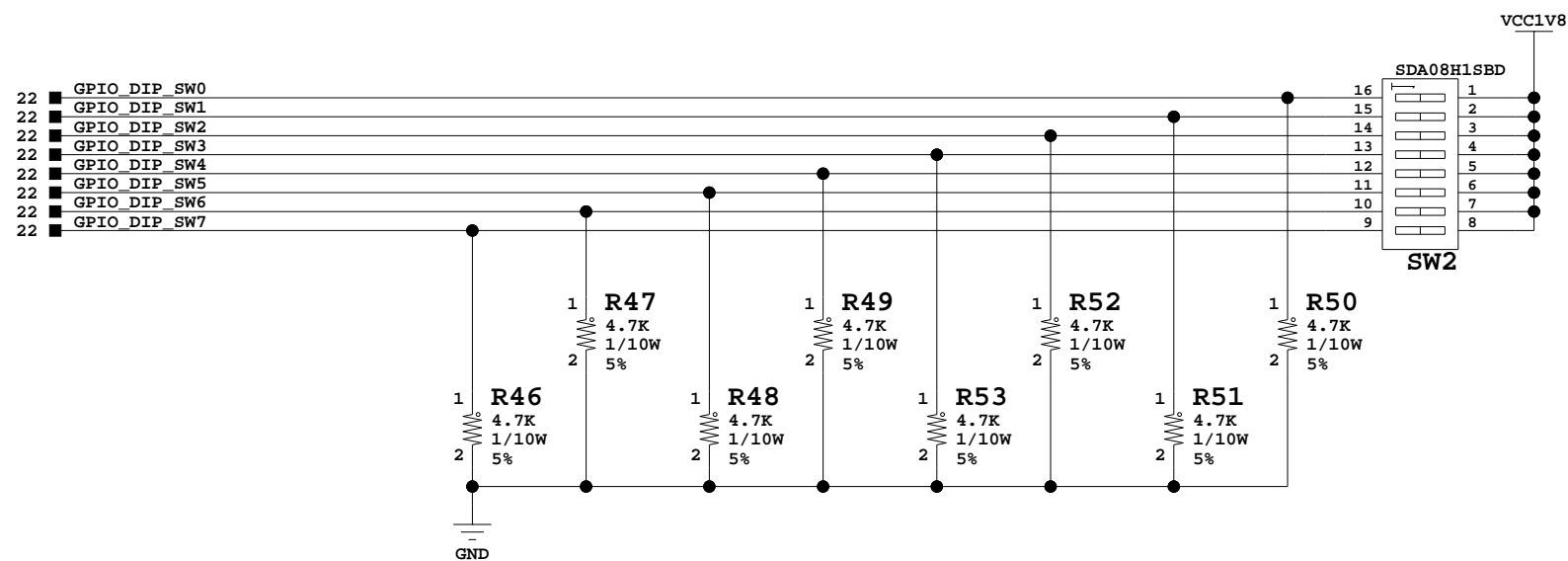
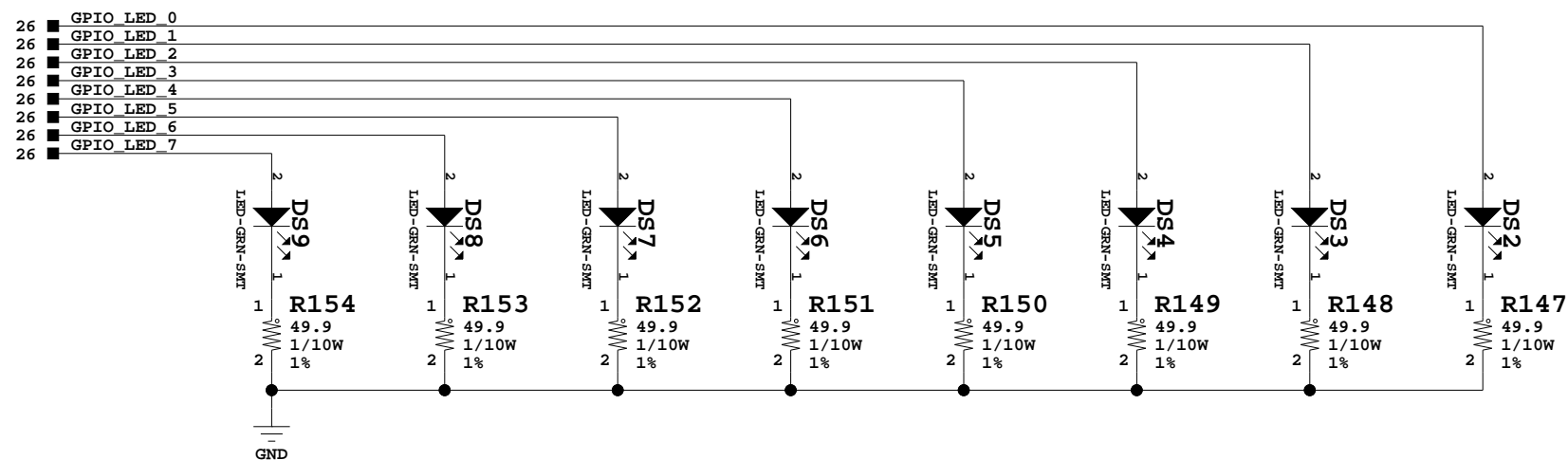
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Date:	12-21-2012_12:08	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	23 of 57	Drawn By	DN




BPI FLASH

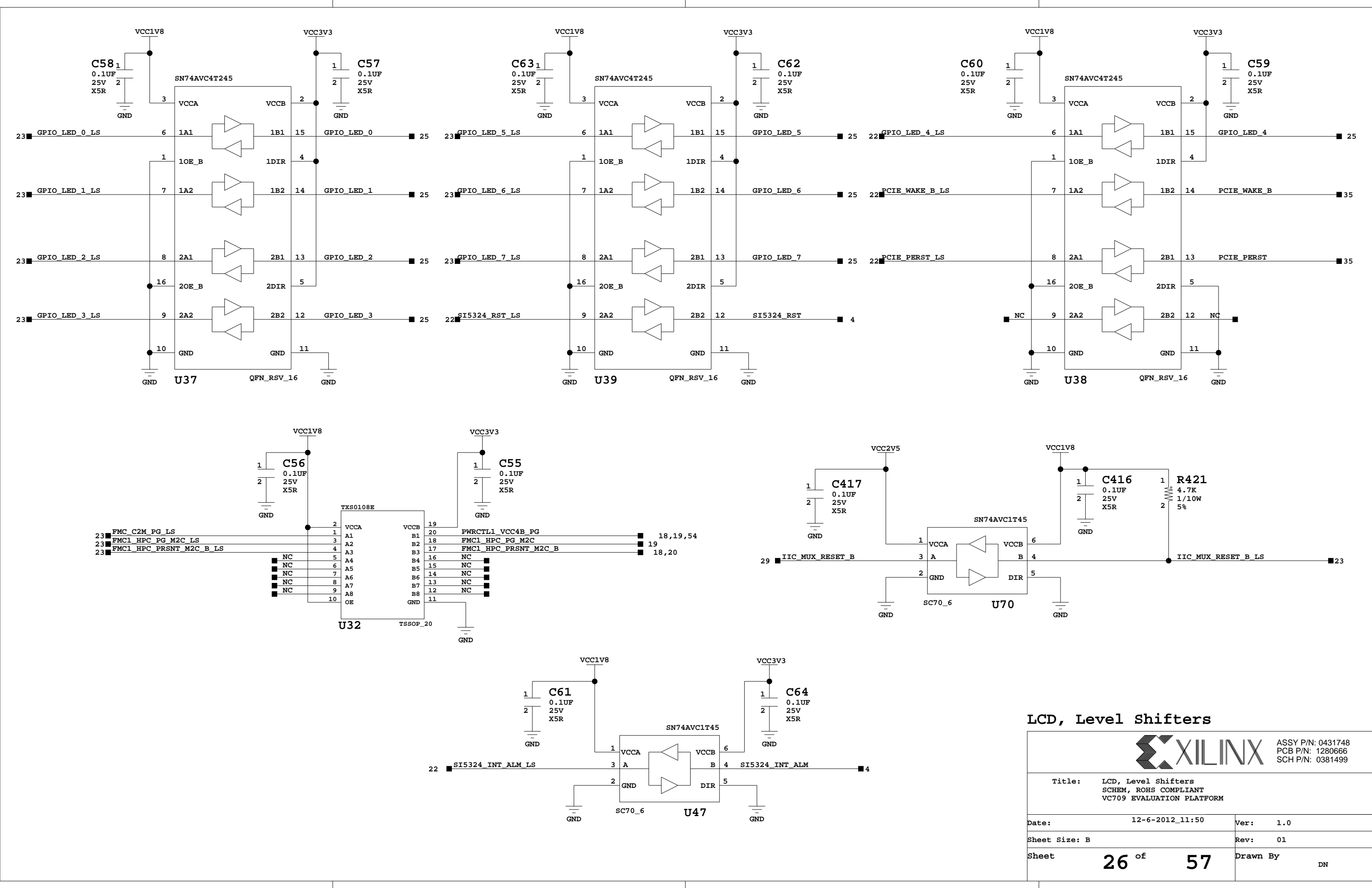
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Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	24 of 57	Drawn By	DN





## Buttons, Switches, LEDs

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
<b>Title:</b> Buttons, Switches, LEDs, Rotary Encoder SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM			
<b>Date:</b> 9-19-2012_15:39		<b>Ver:</b> 1.0	
<b>Sheet Size:</b> B		<b>Rev:</b> 01	
<b>Sheet</b> 25 of 57		<b>Drawn By</b> DN	



LCD, Level Shifters

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
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D

C

B

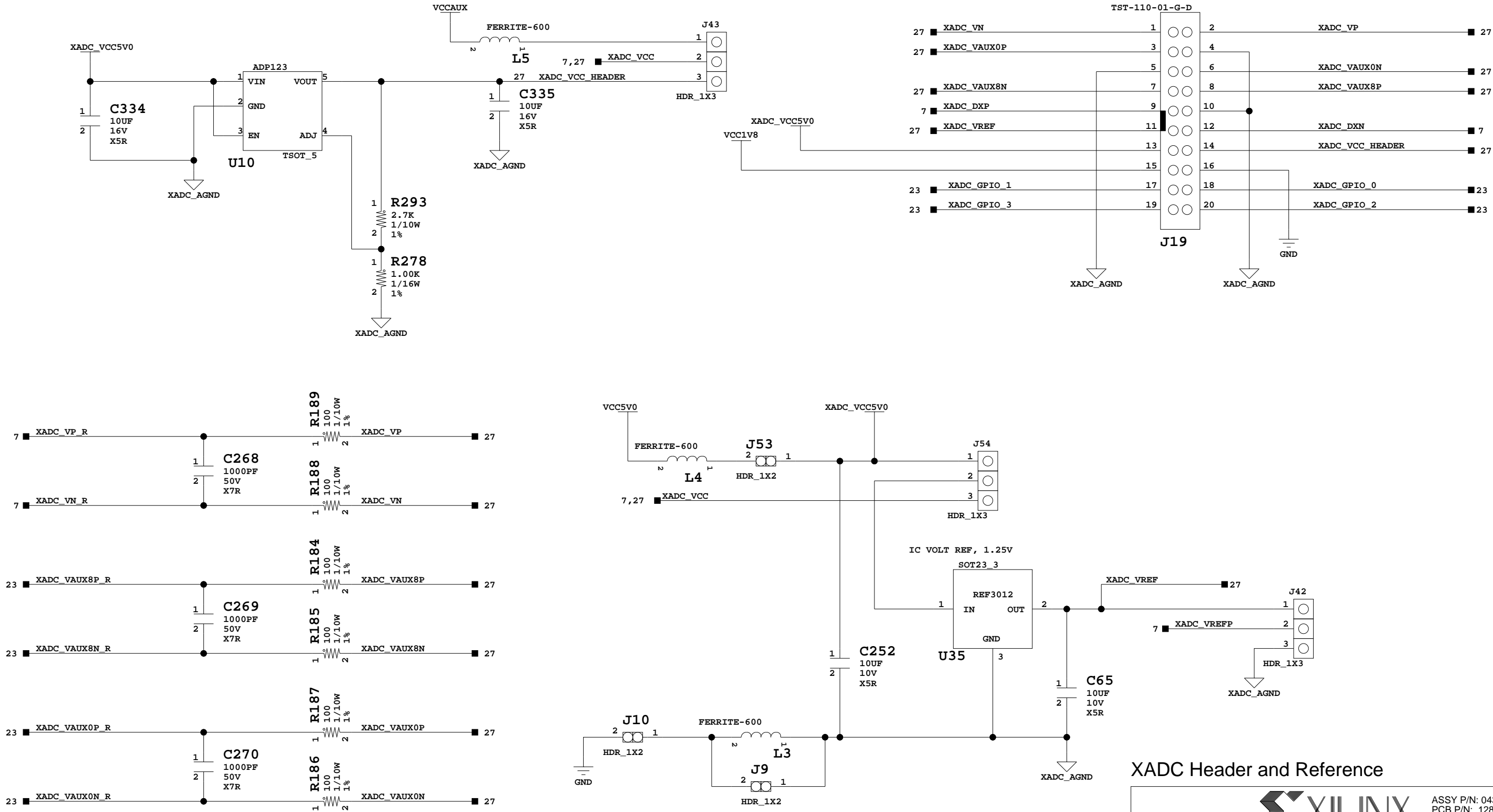
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D

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A



## XADC Header and Reference



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

Title: XADC Header and Reference  
SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

Date: 12-6-2012\_11:50

Ver: 1.0

Sheet Size: B

Rev: 01

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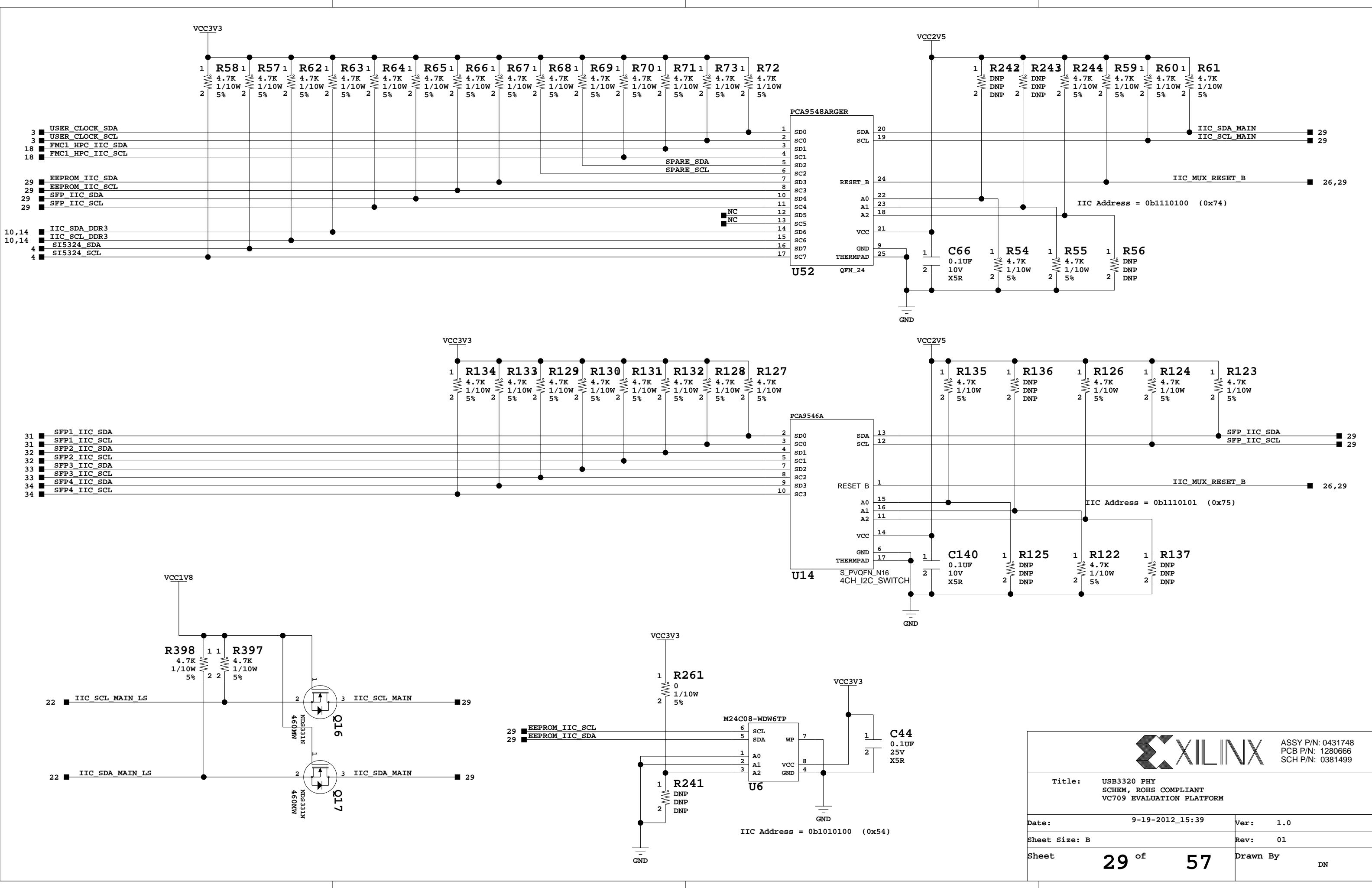
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PCB P/N: 1280666  
SCH P/N: 0381499

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Date: 9-19-2012_15:39	Ver: 1.0
Sheet Size: B	Rev: 01
Sheet 28 of 57	Drawn By DN



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Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	29 of 57	Drawn By	DN

SOC\_V7\_690T\_FF1761\_IRON

BANK 17  
XC7VX690TFFG1761

IO\_0\_VRN\_17\_Y38  
IO\_L1P\_T0\_17\_AB41  
IO\_L1N\_T0\_17\_AB42  
IO\_L2P\_T0\_17\_W40  
IO\_L2N\_T0\_17\_Y40  
IO\_L3P\_T0\_DQS\_17\_Y39  
IO\_L3N\_T0\_DQS\_17\_AA39  
IO\_L4P\_T0\_17\_Y42  
IO\_L4N\_T0\_17\_AA42  
IO\_L5P\_T0\_17\_AB38  
IO\_L5N\_T0\_17\_AB39  
IO\_L6P\_T0\_17\_AA40  
IO\_L6N\_T0\_VREF\_17\_AA41  
IO\_L7P\_T1\_17\_AC38  
IO\_L7N\_T1\_17\_AC39  
IO\_L8P\_T1\_17\_AD42  
IO\_L8N\_T1\_17\_AE42  
IO\_L9P\_T1\_DQS\_17\_AD38  
IO\_L9N\_T1\_DQS\_17\_AE38  
IO\_L10P\_T1\_17\_AC40  
IO\_L10N\_T1\_17\_AC41  
IO\_L11P\_T1\_SRCC\_17\_AE39  
IO\_L11N\_T1\_SRCC\_17\_AE40  
IO\_L12P\_T1\_MRCC\_17\_AD40  
IO\_L12N\_T1\_MRCC\_17\_AD41  
IO\_L13P\_T2\_MRCC\_17\_AF39  
IO\_L13N\_T2\_MRCC\_17\_AF40  
IO\_L14P\_T2\_SRCC\_17\_AF41  
IO\_L14N\_T2\_SRCC\_17\_AG41  
IO\_L15P\_T2\_DQS\_17\_AG39  
IO\_L15N\_T2\_DQS\_17\_AH39  
IO\_L16P\_T2\_17\_AF42  
IO\_L16N\_T2\_17\_AG42  
IO\_L17P\_T2\_17\_AG38  
IO\_L17N\_T2\_17\_AH38  
IO\_L18P\_T2\_17\_AJ38  
IO\_L18N\_T2\_17\_AK38  
IO\_L19P\_T3\_17\_AK40  
IO\_L19N\_T3\_VREF\_17\_AL40  
IO\_L20P\_T3\_17\_AH40  
IO\_L20N\_T3\_17\_AH41  
IO\_L21P\_T3\_DQS\_17\_AL41  
IO\_L21N\_T3\_DQS\_17\_AL42  
IO\_L22P\_T3\_17\_AJ40  
IO\_L22N\_T3\_17\_AJ41  
IO\_L23P\_T3\_17\_AK39  
IO\_L23N\_T3\_17\_AL39  
IO\_L24P\_T3\_17\_AJ42  
IO\_L24N\_T3\_17\_AK42  
IO\_25\_VRP\_17\_AG37

Y38 SFP1\_TX\_FAULT\_LS 31  
AB41 SFP1\_TX\_DISABLE\_LS\_B 31  
AB42 SFP1\_MOD\_DETECT\_LS 31  
W40 SFP1\_RS0\_LS 31  
Y40 SFP1\_RS1\_LS 31  
Y39 SFP1\_LOS\_LS 31  
AA39 SFP2\_TX\_FAULT\_LS 32  
Y42 SFP2\_TX\_DISABLE\_LS\_B 32  
AA42 SFP2\_MOD\_DETECT\_LS 32  
AB38 SFP2\_RS0\_LS 32  
AB39 SFP2\_RS1\_LS 32  
AA40 SFP2\_LOS\_LS 32  
AA41 SFP3\_TX\_FAULT\_LS 33  
AC38 SFP3\_TX\_DISABLE\_LS\_B 33  
AC39 SFP3\_MOD\_DETECT\_LS 33  
AD42 SFP3\_RS0\_LS 33  
AE42 SFP3\_RS1\_LS 33  
AD38 SFP3\_LOS\_LS 33  
AE38 SFP4\_TX\_FAULT\_LS 34  
AC40 SFP4\_TX\_DISABLE\_LS\_B 34  
AC41 SFP4\_MOD\_DETECT\_LS 34  
AE39 SFP4\_RS0\_LS 34  
AE40 SFP4\_RS1\_LS 34  
AD40 SFP4\_LOS\_LS 34  
AD41 NC  
AF39 NC  
AF40 NC  
AF41 NC  
AG41 NC  
AG39 NC  
AH39 NC  
AF42 NC  
AG42 NC  
AG38 NC  
AH38 NC  
AJ38 NC  
AK38 NC  
AK40 NC  
AL40 NC  
AH40 NC  
AH41 NC  
AL41 NC  
AL42 NC  
AJ40 NC  
AJ41 NC  
AK39 NC  
AL39 NC  
AJ42 NC  
AK42 NC  
AG37 NC

Note: SFPx\_TX\_DISABLE\_LS\_B is not named  
correctly, SFP TX is disabled when HIGH

VCC1V8\_FPGA

AB40 VCCO\_17\_AB40  
AC37 VCCO\_17\_AC37  
AE41 VCCO\_17\_AE41  
AF38 VCCO\_17\_AF38  
AH42 VCCO\_17\_AH42  
AJ39 VCCO\_17\_AJ39

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SOC\_IRON\_690T\_FF1761

VCC1V8\_FPGA

1 C402  
100UF  
6.3  
X5R  
2  
GND

SOC\_V7\_690T\_FF1761\_IRON

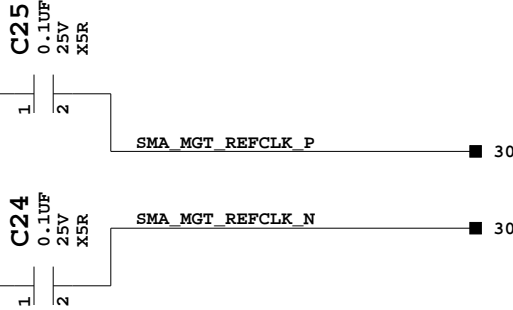
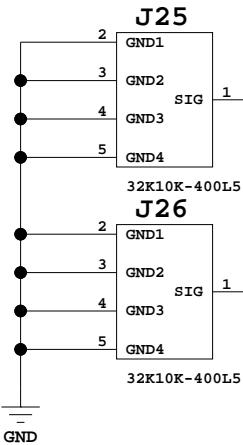
BANK 113  
XC7VX690TFFG1761

MGTHTXP0\_113\_AP4  
MGHTXN0\_113\_AP3  
MGTHRXP0\_113\_AN6  
MGTHRXN0\_113\_AN5  
MGTHTXP1\_113\_AN2  
MGHTXN1\_113\_AN1  
MGTHRXP1\_113\_AM8  
MGTHRXN1\_113\_AM7  
MGHTXP2\_113\_AM4  
MGHTXN2\_113\_AM3  
MGTHRXP2\_113\_AL6  
MGTHRXN2\_113\_AL5  
MGHTXP3\_113\_AL2  
MGHTXN3\_113\_AL1  
MGTHRXP3\_113\_AJ6  
MGTHRXN3\_113\_AJ5  
MGTREFCLK0P\_113\_AH8  
MGTREFCLK0N\_113\_AH7  
MGTREFCLK1P\_113\_AK8  
MGTREFCLK1N\_113\_AK7

AP4 SFP1\_TX\_P 31  
AP3 SFP1\_TX\_N 31  
AN6 SFP1\_RX\_P 31  
AN5 SFP1\_RX\_N 31  
AN2 SFP2\_TX\_P 32  
AN1 SFP2\_TX\_N 32  
AM8 SFP2\_RX\_P 32  
AM7 SFP2\_RX\_N 32  
AM4 SFP3\_TX\_P 33  
AM3 SFP3\_TX\_N 33  
AL6 SFP3\_RX\_P 33  
AL5 SFP3\_RX\_N 33  
AL2 SFP4\_TX\_P 34  
AL1 SFP4\_TX\_N 34  
AJ6 SFP4\_RX\_P 34  
AJ5 SFP4\_RX\_N 34  
AH8 SI5324\_OUT\_C\_P 34  
AH7 SI5324\_OUT\_C\_N 4  
AK8 SMA\_MGT\_REFCLK\_P 30  
AK7 SMA\_MGT\_REFCLK\_N 30

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SOC\_IRON\_690T\_FF1761



FPGA Bank 17



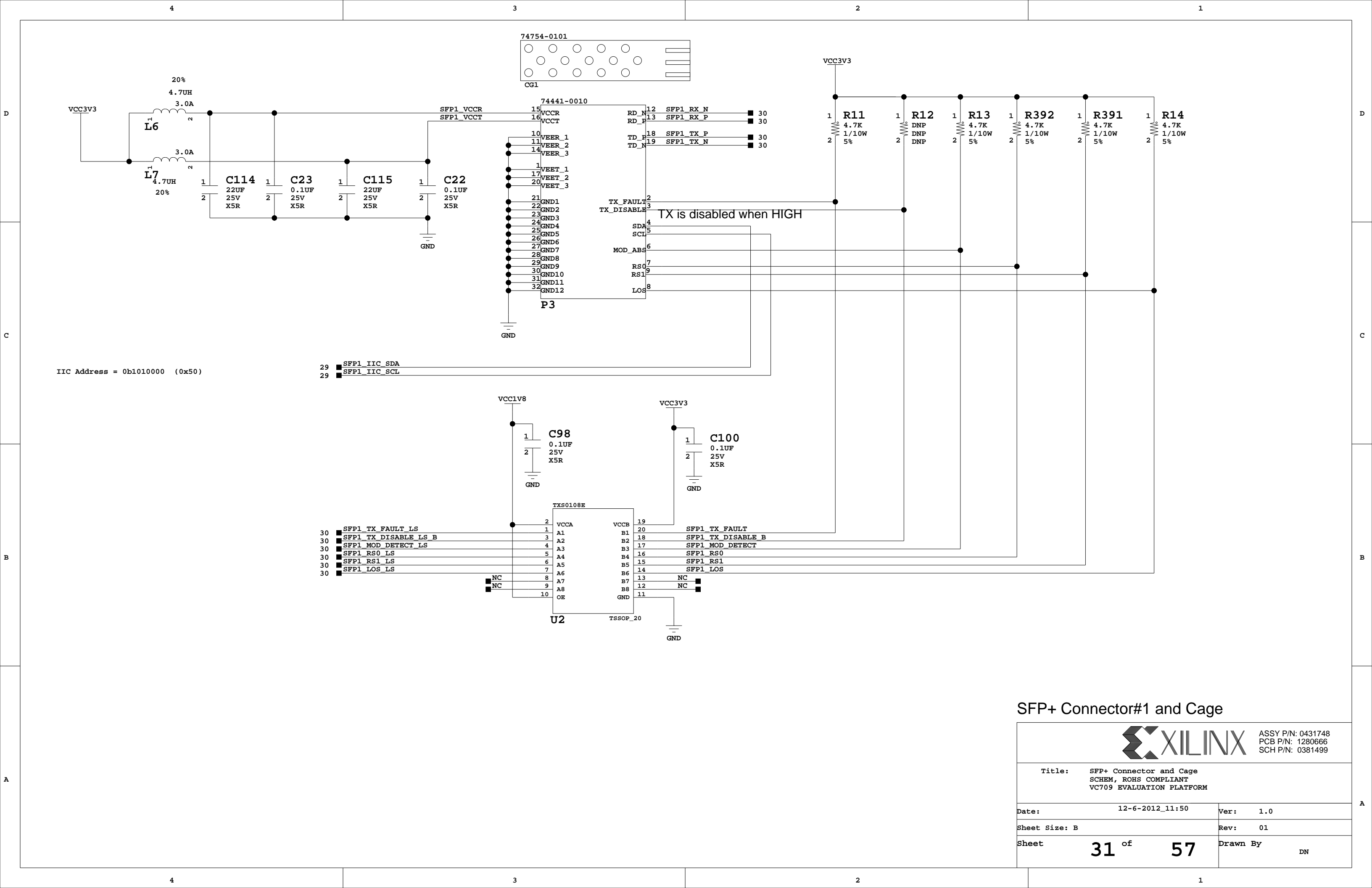
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SCH P/N: 0381499

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SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

Date: 12-21-2012\_13:14 Ver: 1.0

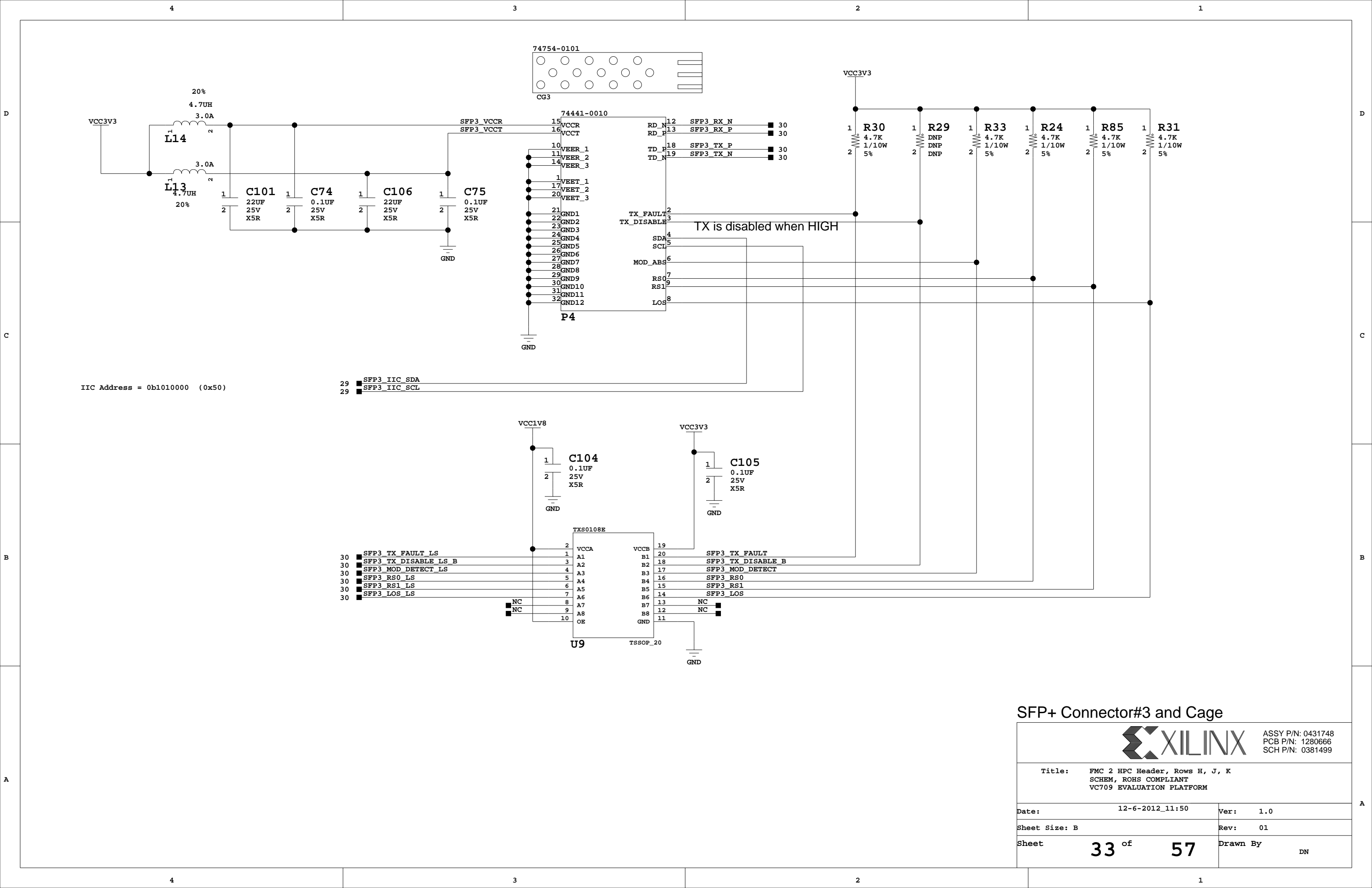
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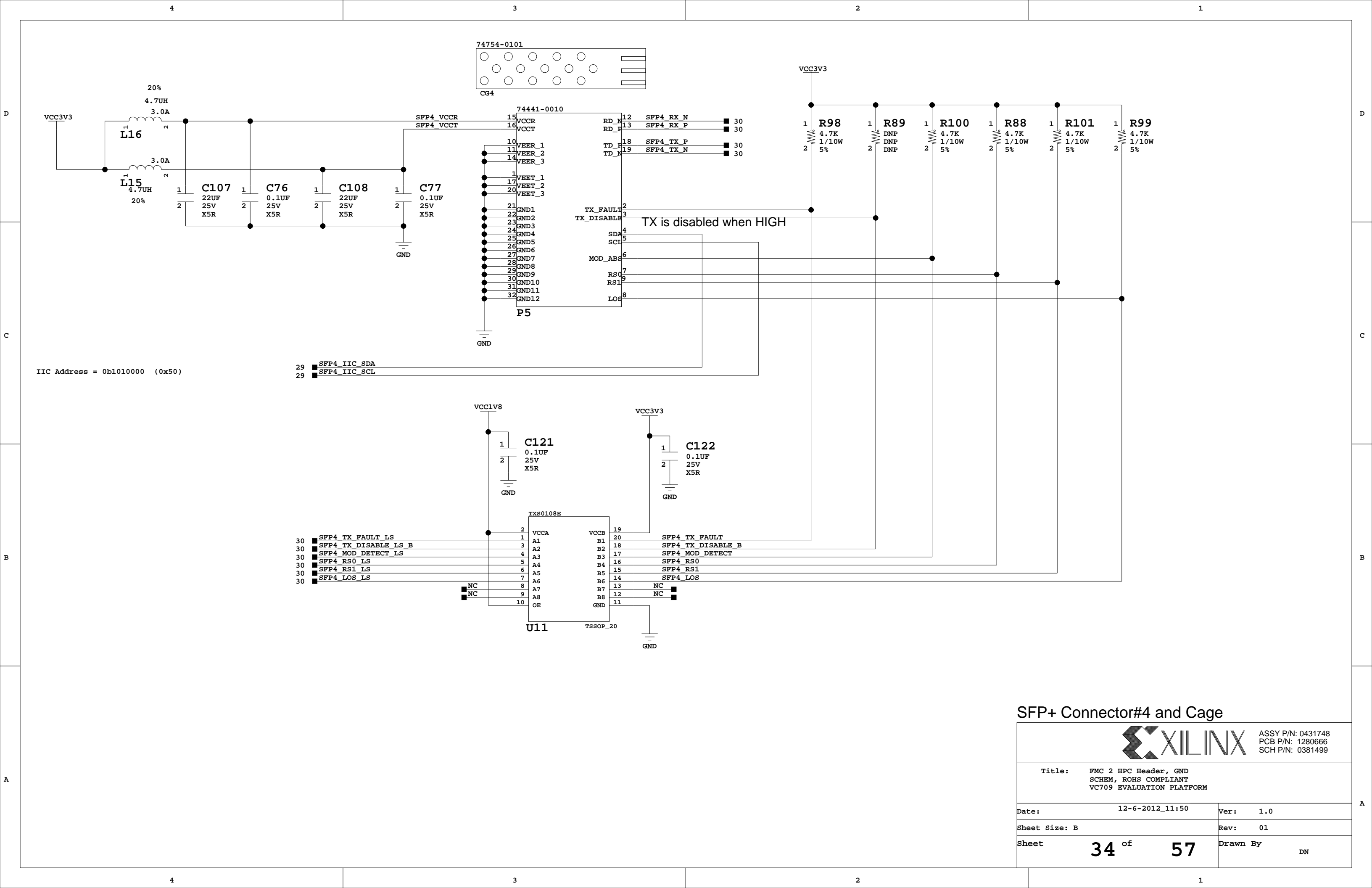
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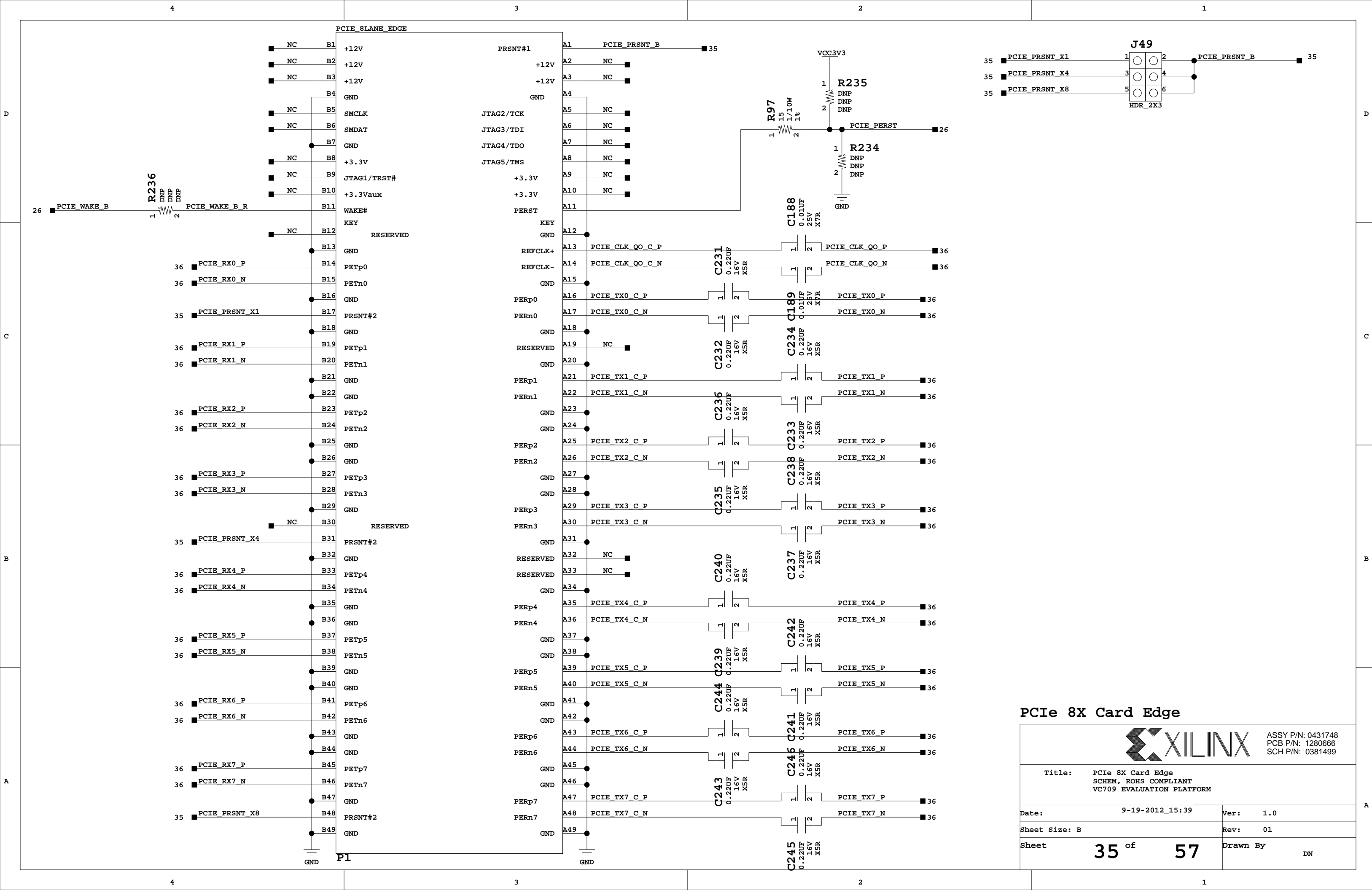




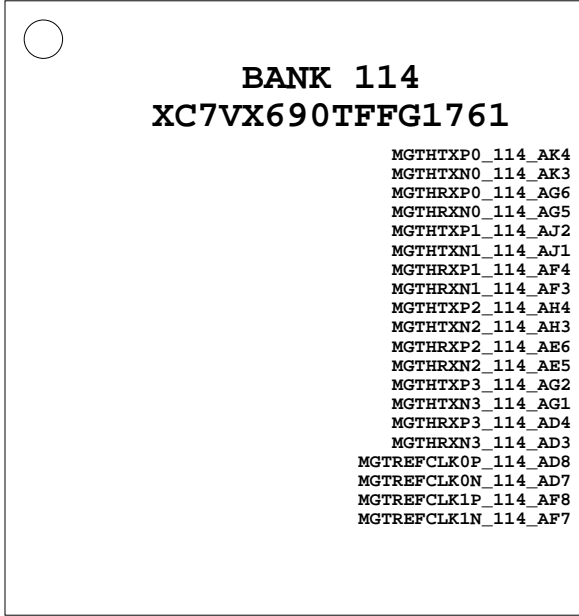








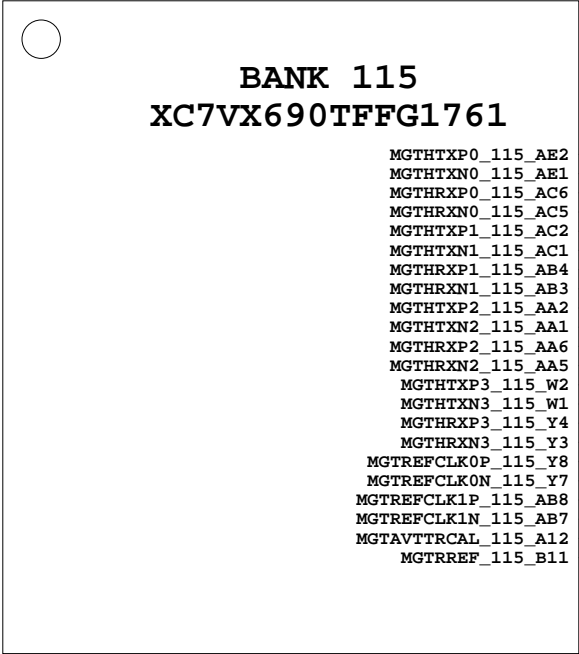
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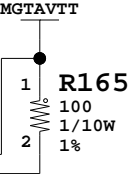
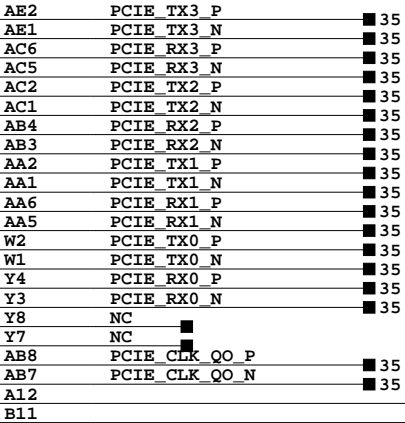
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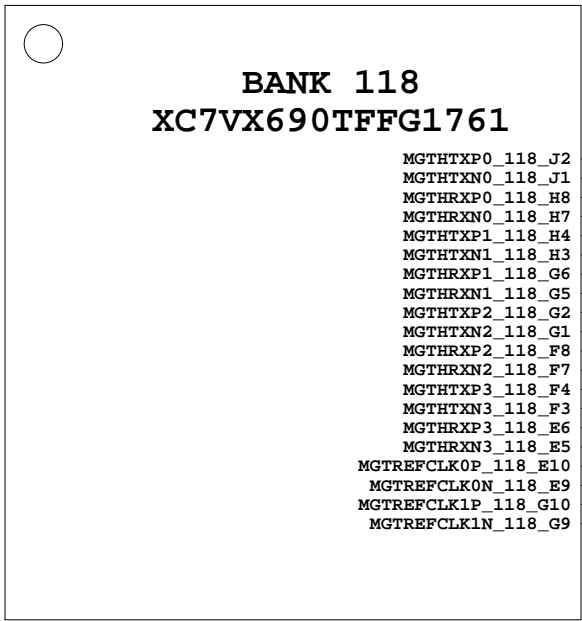
SOC\_IRON\_690T\_FF1761



FPGA GT Banks 113, 114

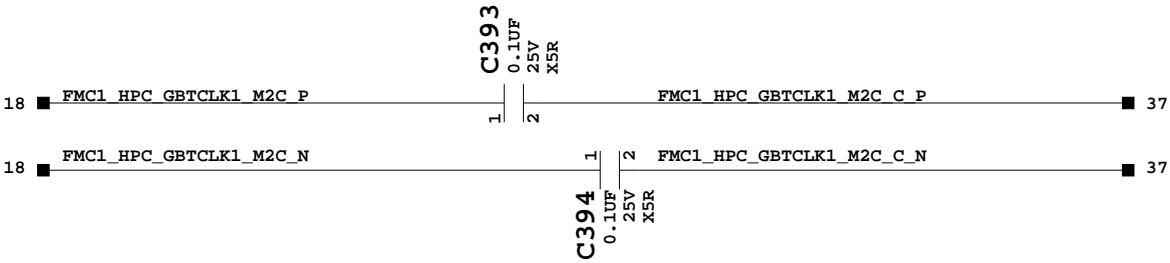
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Title:		FPGA GT Banks 113, 114 SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	12-21-2012_13:14	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	36 of 57	Drawn By	DN

SOC\_V7\_690T\_FF1761\_IRON

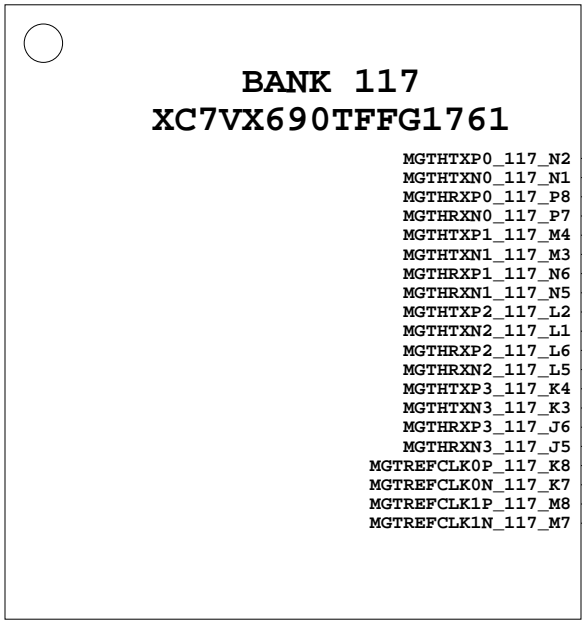


J2	FMC1_HPC_DP4_C2M_P	18
J1	FMC1_HPC_DP4_C2M_N	18
H8	FMC1_HPC_DP4_M2C_P	18
H7	FMC1_HPC_DP4_M2C_N	18
H4	FMC1_HPC_DP5_C2M_P	18
H3	FMC1_HPC_DP5_C2M_N	18
G6	FMC1_HPC_DP5_M2C_P	18
G5	FMC1_HPC_DP5_M2C_N	18
G2	FMC1_HPC_DP6_C2M_P	18
G1	FMC1_HPC_DP6_C2M_N	18
F8	FMC1_HPC_DP6_M2C_P	18
F7	FMC1_HPC_DP6_M2C_N	18
F4	FMC1_HPC_DP7_C2M_P	18
F3	FMC1_HPC_DP7_C2M_N	18
E6	FMC1_HPC_DP7_M2C_P	18
E5	FMC1_HPC_DP7_M2C_N	18
E10	FMC1_HPC_GBTCLK1_M2C_C_P	37
E9	FMC1_HPC_GBTCLK1_M2C_C_N	37
G10	FMC1_HPC_GBTCLK0_M2C_C_P	37
G9	FMC1_HPC_GBTCLK0_M2C_C_N	37

U1SOC\_IRON\_690T\_FF1761



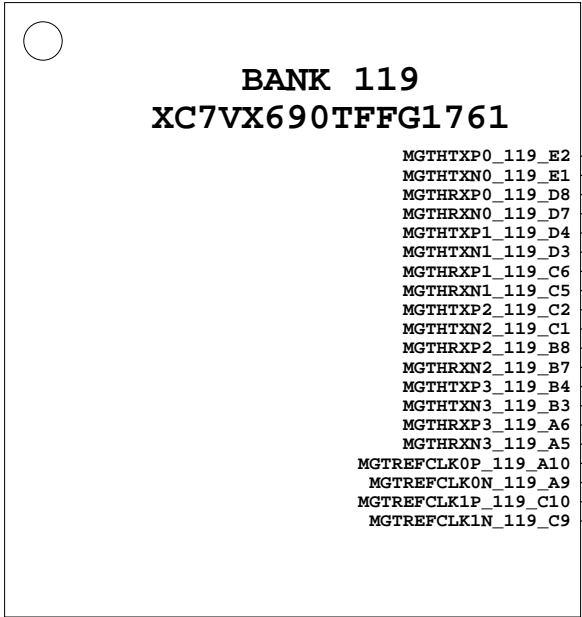
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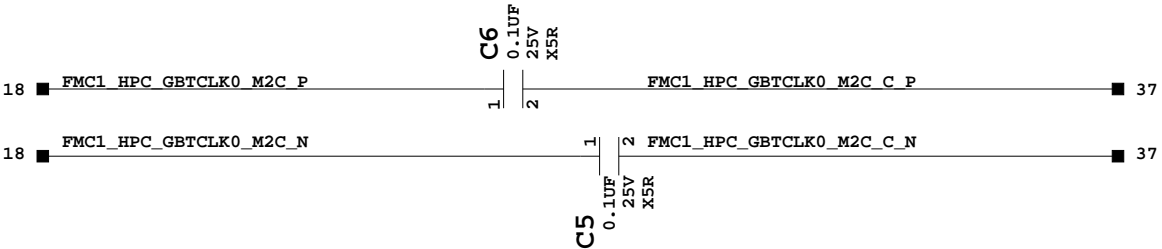
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P8	FMC1_HPC_DP8_M2C_P	18
P7	FMC1_HPC_DP8_M2C_N	18
M4	FMC1_HPC_DP9_C2M_P	18
M3	FMC1_HPC_DP9_C2M_N	18
N6	FMC1_HPC_DP9_M2C_P	18
N5	FMC1_HPC_DP9_M2C_N	18
L2	NC	
L1	NC	
L6	NC	
L5	NC	
K4	NC	
K3	NC	
J6	NC	
J5	NC	
K8	NC	
K7	NC	
M8	NC	
M7	NC	

U1SOC\_IRON\_690T\_FF1761

SOC\_V7\_690T\_FF1761\_IRON



U1SOC\_IRON\_690T\_FF1761

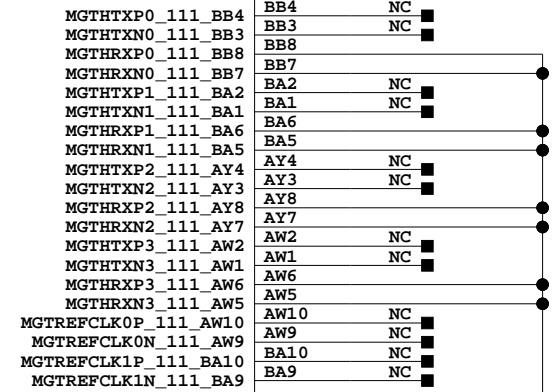


FPGA GT Banks 117, 118, 119

<div><div>XILINX</div><div>ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499</div></div>	
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Date: 12-21-2012_13:14	Ver: 1.0
Sheet Size: B	Rev: 01
Sheet 37 of 57	Drawn By DN

SOC\_V7\_690T\_FF1761\_IRON

BANK 111  
XC7VX690TFFG1761



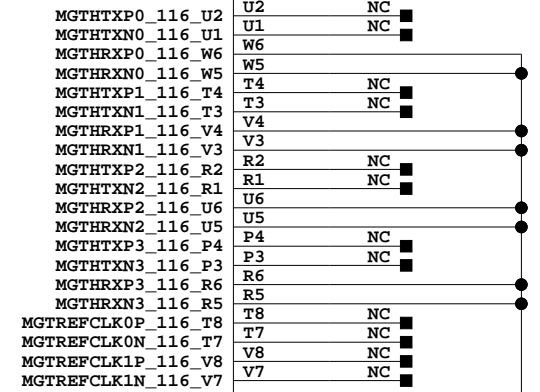
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SOC\_IRON\_690T\_FF1761

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SOC\_V7\_690T\_FF1761\_IRON

BANK 116  
XC7VX690TFFG1761



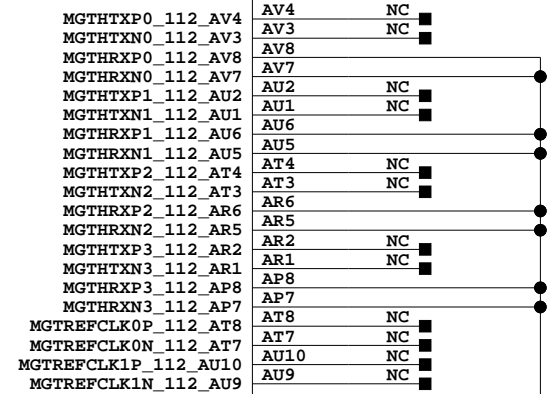
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SOC\_IRON\_690T\_FF1761

GND

SOC\_V7\_690T\_FF1761\_IRON

BANK 112  
XC7VX690TFFG1761



U1

SOC\_IRON\_690T\_FF1761

GND

FPGA Bank 31, GT Banks 111, 112



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

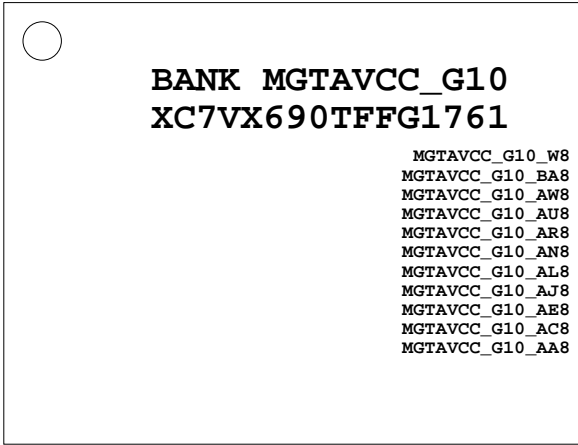
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SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

Date: 12-21-2012\_13:14 Ver: 1.0

Sheet Size: B Rev: 01

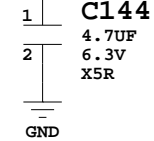
Sheet 38 of 57 Drawn By DN

SOC\_V7\_690T\_FF1761\_IRON

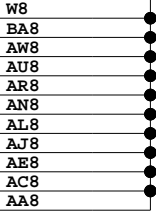


U1 SOC\_IRON\_690T\_FF1761

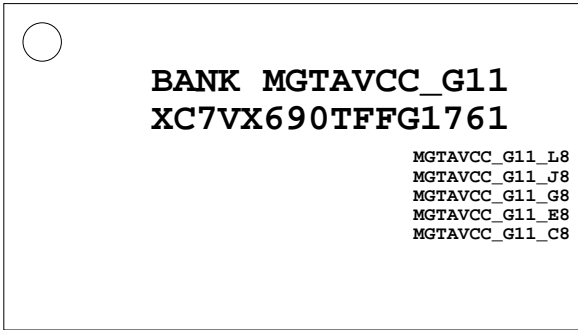
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MGTAVCC

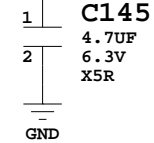


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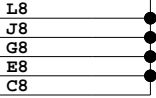


U1 SOC\_IRON\_690T\_FF1761

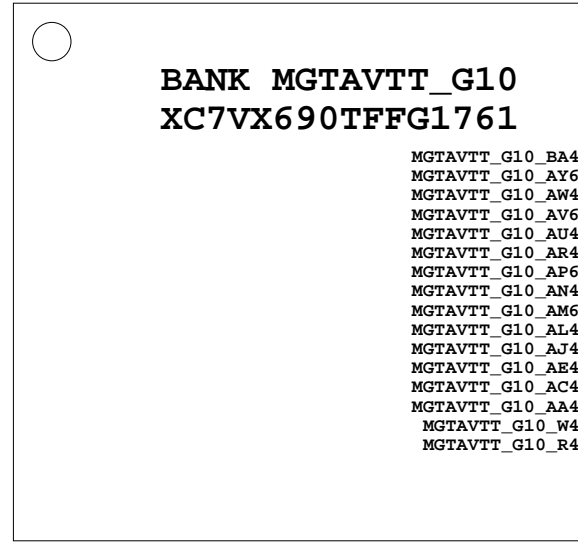
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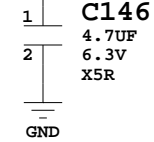


SOC\_V7\_690T\_FF1761\_IRON

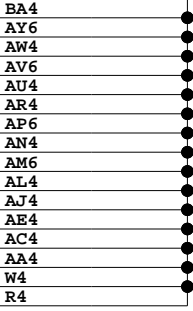


U1 SOC\_IRON\_690T\_FF1761

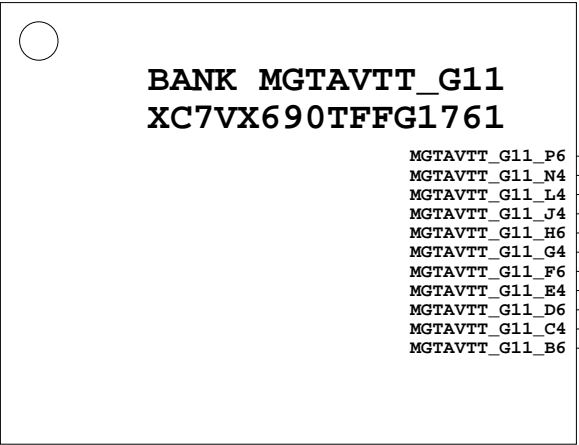
MGTAVTT



MGTAVTT



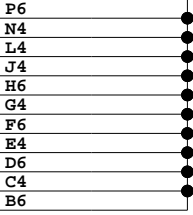
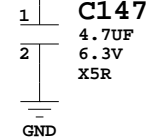
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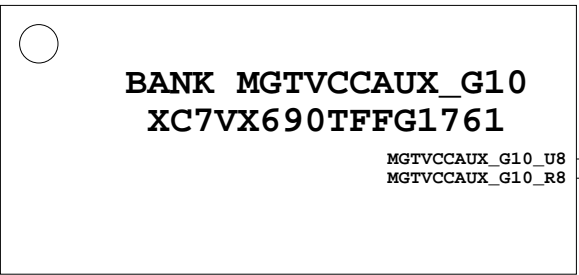
U1 SOC\_IRON\_690T\_FF1761

MGTAVTT

MGTAVTT



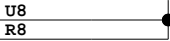
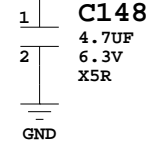
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U1 SOC\_IRON\_690T\_FF1761

MGTVCCAUX

MGTVCCAUX



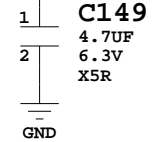
SOC\_V7\_690T\_FF1761\_IRON



U1 SOC\_IRON\_690T\_FF1761

MGTVCCAUX

MGTVCCAUX



N8

FPGA Power Pins

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Title:		FPGA Power Pins SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	12-21-2012_13:14	Ver:	1.0
Sheet Size:	B	Rev:	01
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SOC\_V7\_690T\_FF1761\_IRON

BANK 12  
XC7VX690TFFG1761

VCC1V8\_FPGA

- AK26
- AN27
- AT28
- AU25
- AW29
- AY26

- VCCO\_12\_AK26
- VCCO\_12\_AN27
- VCCO\_12\_AT28
- VCCO\_12\_AU25
- VCCO\_12\_AW29
- VCCO\_12\_AY26

- IO\_0\_VRN\_12\_AN29
- IO\_L1P\_T0\_12\_AY27
- IO\_L1N\_T0\_12\_AY28
- IO\_L2P\_T0\_12\_AU29
- IO\_L2N\_T0\_12\_AV29
- IO\_L3P\_T0\_DQS\_12\_BA26
- IO\_L3N\_T0\_DQS\_12\_BA27
- IO\_L4P\_T0\_12\_BB28
- IO\_L4N\_T0\_12\_BB29
- IO\_L5P\_T0\_12\_BB26
- IO\_L5N\_T0\_12\_BB27
- IO\_L6P\_T0\_12\_AY29
- IO\_L6N\_T0\_VREF\_12\_BA29
- IO\_L7P\_T1\_12\_AW25
- IO\_L7N\_T1\_12\_AW26
- IO\_L8P\_T1\_12\_AR29
- IO\_L8N\_T1\_12\_AT29
- IO\_L9P\_T1\_DQS\_12\_AV25
- IO\_L9N\_T1\_DQS\_12\_AV26
- IO\_L10P\_T1\_12\_AW27
- IO\_L10N\_T1\_12\_AW28
- IO\_L11P\_T1\_SRCC\_12\_AU28
- IO\_L11N\_T1\_SRCC\_12\_AV28
- IO\_L12P\_T1\_MRCC\_12\_AU26
- IO\_L12N\_T1\_MRCC\_12\_AU27
- IO\_L13P\_T2\_MRCC\_12\_AR27
- IO\_L13N\_T2\_MRCC\_12\_AT27
- IO\_L14P\_T2\_SRCC\_12\_AP27
- IO\_L14N\_T2\_SRCC\_12\_AR28
- IO\_L15P\_T2\_DQS\_12\_AN28
- IO\_L15N\_T2\_DQS\_12\_AP28
- IO\_L16P\_T2\_12\_AT25
- IO\_L16N\_T2\_12\_AT26
- IO\_L17P\_T2\_12\_AP25
- IO\_L17N\_T2\_12\_AR25
- IO\_L18P\_T2\_12\_AN25
- IO\_L18N\_T2\_12\_AN26
- IO\_L19P\_T3\_12\_AM28
- IO\_L19N\_T3\_VREF\_12\_AM29
- IO\_L20P\_T3\_12\_AK27
- IO\_L20N\_T3\_12\_AL27
- IO\_L21P\_T3\_DQS\_12\_AM26
- IO\_L21N\_T3\_DQS\_12\_AM27
- IO\_L22P\_T3\_12\_AK24
- IO\_L22N\_T3\_12\_AK25
- IO\_L23P\_T3\_12\_AL25
- IO\_L23N\_T3\_12\_AL26
- IO\_L24P\_T3\_12\_AJ25
- IO\_L24N\_T3\_12\_AJ26
- IO\_25\_VRP\_12\_AP26

- AN29 NC
- AY27 NC
- AY28 NC
- AU29 NC
- AV29 NC
- BA26 NC
- BA27 NC
- BB28 NC
- BB29 NC
- BB26 NC
- BB27 NC
- AY29 NC
- BA29 NC
- AW25 NC
- AW26 NC
- AR29 NC
- AT29 NC
- AV25 NC
- AV26 NC
- AW27 NC
- AW28 NC
- AU28 NC
- AV28 NC
- AU26 NC
- AU27 NC
- AR27 NC
- AT27 NC
- AP27 NC
- AR28 NC
- AN28 NC
- AP28 NC
- AT25 NC
- AT26 NC
- AP25 NC
- AR25 NC
- AN25 NC
- AN26 NC
- AM28 NC
- AM29 NC
- AK27 NC
- AL27 NC
- AM26 NC
- AM27 NC
- AK24 NC
- AK25 NC
- AL25 NC
- AL26 NC
- AJ25 NC
- AJ26 NC
- AP26 NC

U1

SOC\_IRON\_690T\_FF1761

SOC\_V7\_690T\_FF1761\_IRON

BANK 16  
XC7VX690TFFG1761

VCC1V8\_FPGA

- AA33
- AB30
- AD34
- AE31
- AG35
- Y36

- VCCO\_16\_AA33
- VCCO\_16\_AB30
- VCCO\_16\_AD34
- VCCO\_16\_AE31
- VCCO\_16\_AG35
- VCCO\_16\_Y36

- IO\_0\_VRN\_16\_Y34
- IO\_L1P\_T0\_16\_AF35
- IO\_L1N\_T0\_16\_AF36
- IO\_L2P\_T0\_16\_AE37
- IO\_L2N\_T0\_16\_AF37
- IO\_L3P\_T0\_DQS\_16\_AF34
- IO\_L3N\_T0\_DQS\_16\_AG34
- IO\_L4P\_T0\_16\_AD36
- IO\_L4N\_T0\_16\_AD37
- IO\_L5P\_T0\_16\_AC35
- IO\_L5N\_T0\_16\_AC36
- IO\_L6P\_T0\_16\_AG36
- IO\_L6N\_T0\_VREF\_16\_AH36
- IO\_L7P\_T1\_16\_Y37
- IO\_L7N\_T1\_16\_AA37
- IO\_L8P\_T1\_16\_Y35
- IO\_L8N\_T1\_16\_AA36
- IO\_L9P\_T1\_DQS\_16\_AB36
- IO\_L9N\_T1\_DQS\_16\_AB37
- IO\_L10P\_T1\_16\_AA34
- IO\_L10N\_T1\_16\_AA35
- IO\_L11P\_T1\_SRCC\_16\_AB31
- IO\_L11N\_T1\_SRCC\_16\_AB32
- IO\_L12P\_T1\_MRCC\_16\_AB33
- IO\_L12N\_T1\_MRCC\_16\_AC33
- IO\_L13P\_T2\_MRCC\_16\_AD32
- IO\_L13N\_T2\_MRCC\_16\_AD33
- IO\_L14P\_T2\_SRCC\_16\_AC34
- IO\_L14N\_T2\_SRCC\_16\_AD35
- IO\_L15P\_T2\_DQS\_16\_AE32
- IO\_L15N\_T2\_DQS\_16\_AE33
- IO\_L16P\_T2\_16\_AF31
- IO\_L16N\_T2\_16\_AF32
- IO\_L17P\_T2\_16\_AE34
- IO\_L17N\_T2\_16\_AE35
- IO\_L18P\_T2\_16\_AE29
- IO\_L18N\_T2\_16\_AE30
- IO\_L19P\_T3\_16\_Y32
- IO\_L19N\_T3\_VREF\_16\_Y33
- IO\_L20P\_T3\_16\_AC31
- IO\_L20N\_T3\_16\_AD31
- IO\_L21P\_T3\_DQS\_16\_AA31
- IO\_L21N\_T3\_DQS\_16\_AA32
- IO\_L22P\_T3\_16\_AC30
- IO\_L22N\_T3\_16\_AD30
- IO\_L23P\_T3\_16\_AA29
- IO\_L23N\_T3\_16\_AA30
- IO\_L24P\_T3\_16\_AB29
- IO\_L24N\_T3\_16\_AC29
- IO\_25\_VRP\_16\_AB34

- Y34 NC
- AF35 NC
- AF36 NC
- AE37 NC
- AF37 NC
- AF34 NC
- AG34 NC
- AD36 NC
- AD37 NC
- AC35 NC
- AC36 NC
- AG36 NC
- AH36 NC
- Y37 NC
- AA37 NC
- Y35 NC
- AA36 NC
- AB36 NC
- AB37 NC
- AA34 NC
- AA35 NC
- AB31 NC
- AB32 NC
- AB33 NC
- AC33 NC
- AD32 NC
- AD33 NC
- AC34 NC
- AD35 NC
- AE32 NC
- AE33 NC
- AF31 NC
- AF32 NC
- AE34 NC
- AE35 NC
- AE29 NC
- AE30 NC
- Y32 NC
- Y33 NC
- AC31 NC
- AD31 NC
- AA31 NC
- AA32 NC
- AC30 NC
- AD30 NC
- AA29 NC
- AA30 NC
- AB29 NC
- AC29 NC
- AB34 NC

U1

SOC\_IRON\_690T\_FF1761

FPGA Banks 12, 16



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

Title: HDMI CONNECTOR  
SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

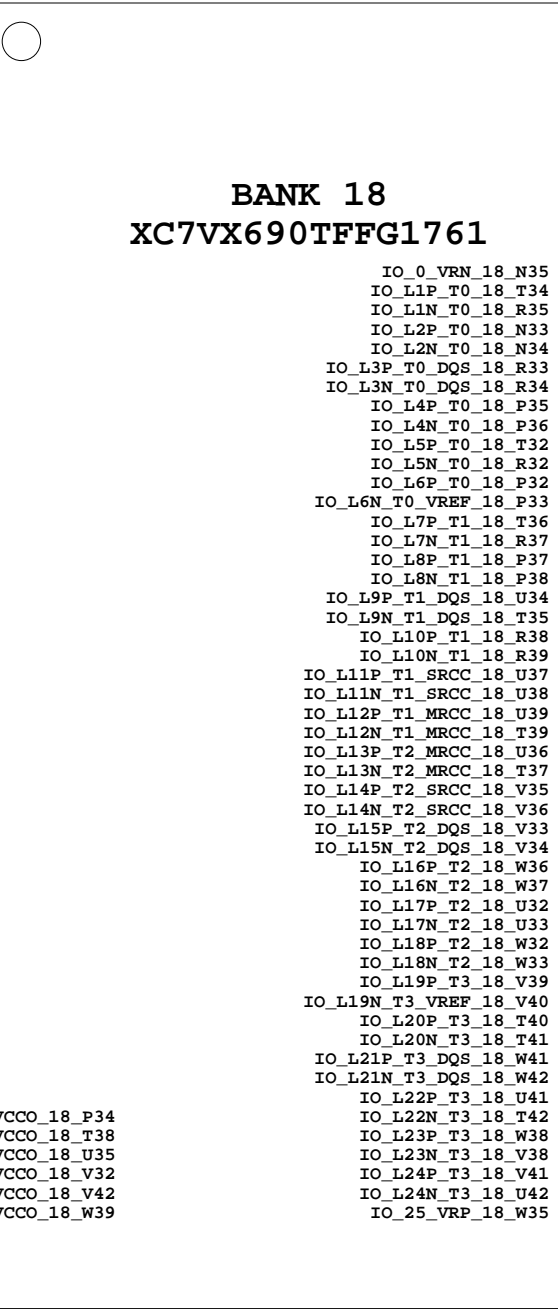
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Sheet Size: B Rev: 01

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SOC\_V7\_690T\_FF1761\_IRON



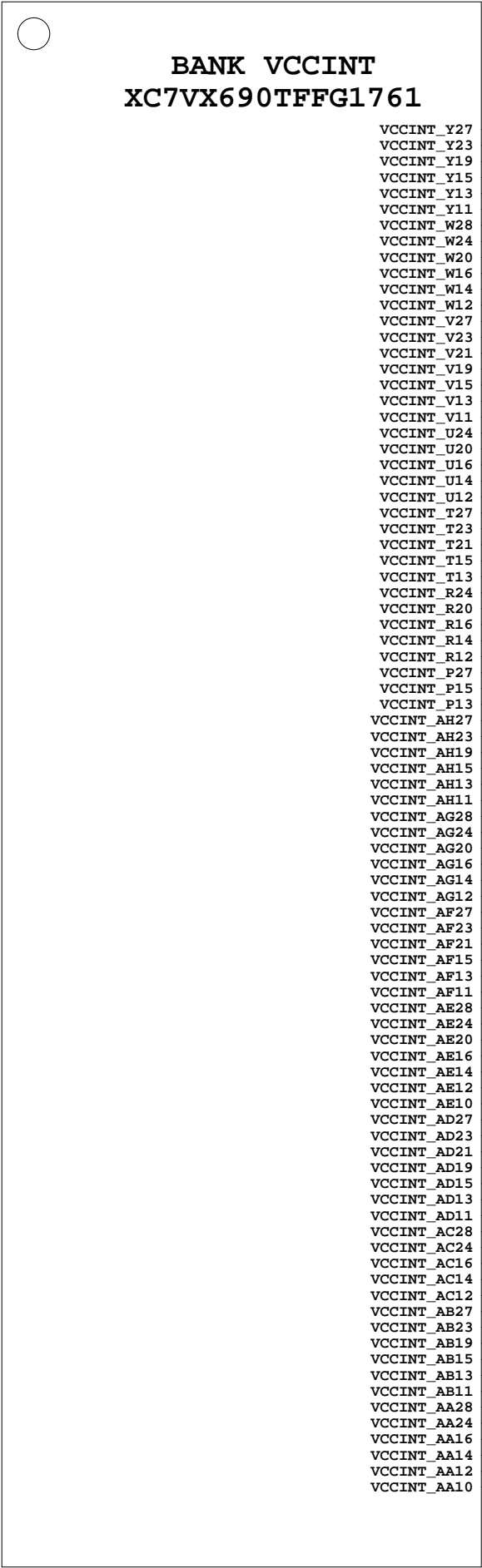
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SOC\_IRON\_690T\_FF1761

FPGA Bank 18

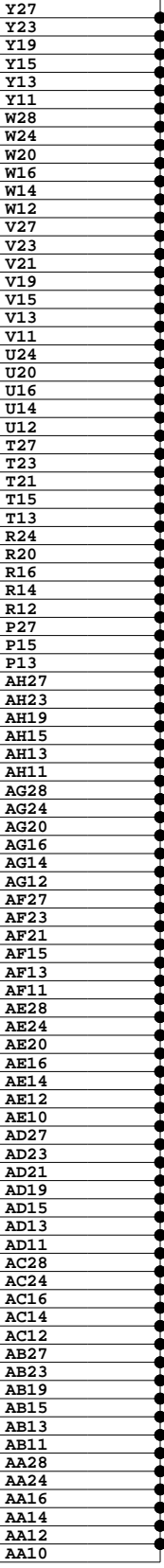
		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		FPGA Banks 16, 17 SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	12-21-2012_13:14	Ver:	1.0
Sheet Size:	B	Rev:	01
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SOC\_V7\_690T\_FF1761\_IRON

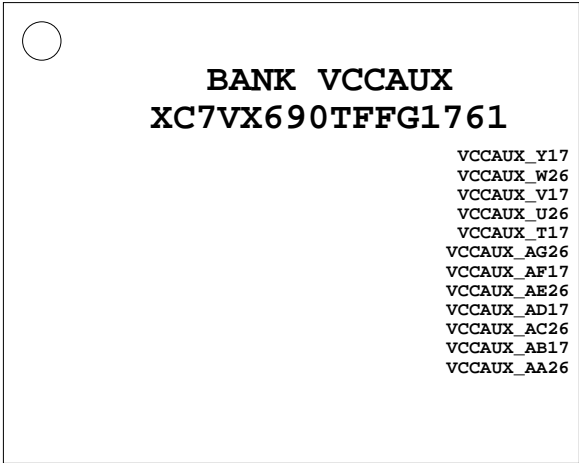


U1 SOC\_IRON\_690T\_FF1761

VCCINT\_FPGA

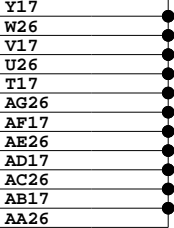


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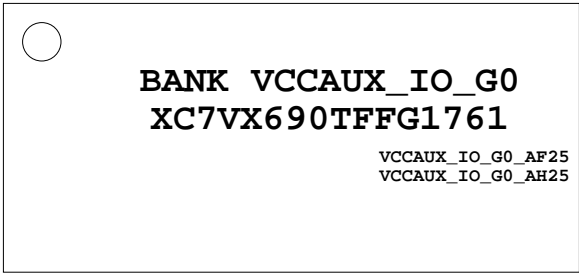


U1 SOC\_IRON\_690T\_FF1761

VCCAUX

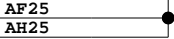


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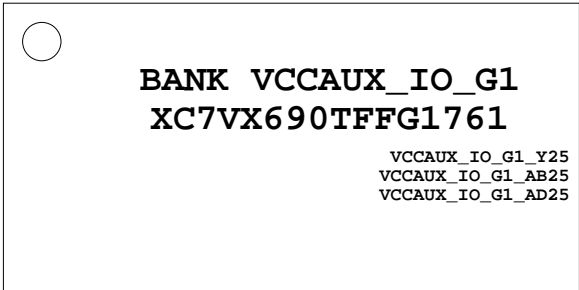


U1 SOC\_IRON\_690T\_FF1761

VCCAUX\_IO

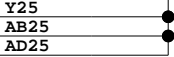


SOC\_V7\_690T\_FF1761\_IRON

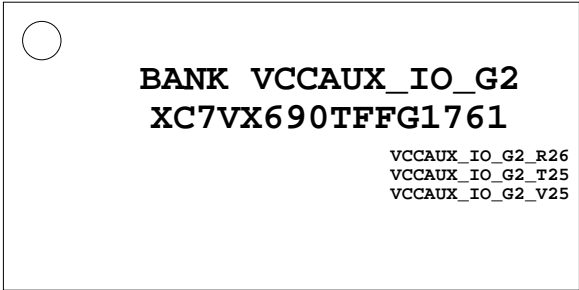


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VCCAUX\_IO

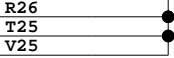


SOC\_V7\_690T\_FF1761\_IRON

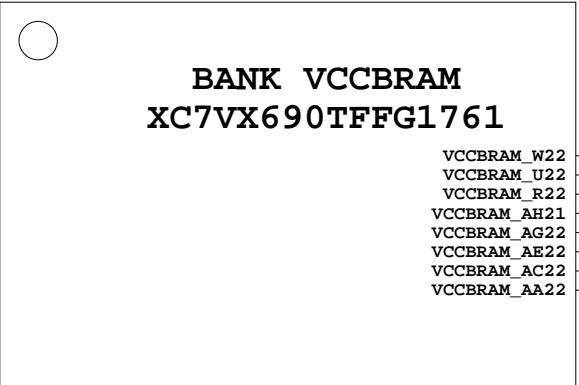


U1 SOC\_IRON\_690T\_FF1761

VCCAUX\_IO

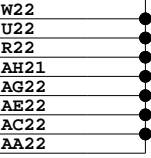


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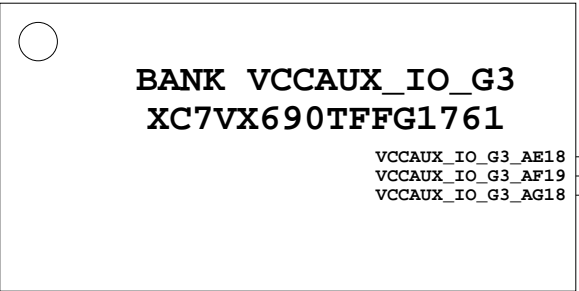


U1 SOC\_IRON\_690T\_FF1761

VCCINT\_FPGA

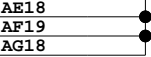


SOC\_V7\_690T\_FF1761\_IRON

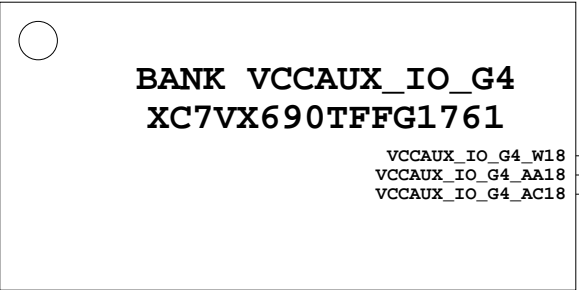


U1 SOC\_IRON\_690T\_FF1761

VCCAUX\_IO

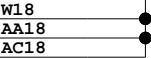


SOC\_V7\_690T\_FF1761\_IRON

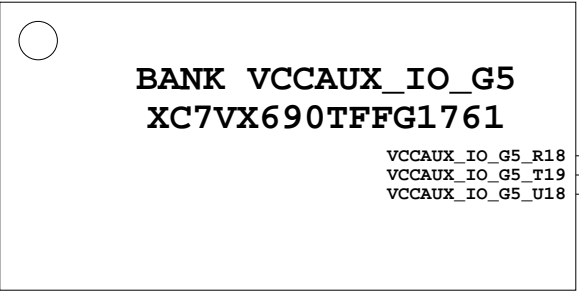


U1 SOC\_IRON\_690T\_FF1761

VCCAUX\_IO

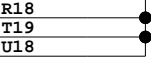


SOC\_V7\_690T\_FF1761\_IRON



U1 SOC\_IRON\_690T\_FF1761

VCCAUX\_IO



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

Title: FPGA Power Pins  
SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM

Date: 12-21-2012\_13:14 Ver: 1.0

Sheet Size: B Rev: 01

Sheet 42 of 57 Drawn By DN

BANK GND2  
XC7VX690TFFG1761

Y41 GND\_Y41  
Y31 GND\_Y31  
Y28 GND\_Y28  
Y26 GND\_Y26  
Y24 GND\_Y24  
Y22 GND\_Y22  
Y18 GND\_Y18  
Y16 GND\_Y16  
Y14 GND\_Y14  
Y12 GND\_Y12  
Y10 GND\_Y10  
Y9 GND\_Y9  
Y6 GND\_Y6  
Y5 GND\_Y5  
Y2 GND\_Y2  
Y1 GND\_Y1  
W34 GND\_W34  
W27 GND\_W27  
W25 GND\_W25  
W23 GND\_W23  
W21 GND\_W21  
W19 GND\_W19  
W17 GND\_W17  
W15 GND\_W15  
W13 GND\_W13  
W11 GND\_W11  
W7 GND\_W7  
W3 GND\_W3  
V37 GND\_V37  
V28 GND\_V28  
V26 GND\_V26  
V24 GND\_V24  
V22 GND\_V22  
V20 GND\_V20  
V18 GND\_V18  
V16 GND\_V16  
V14 GND\_V14  
V12 GND\_V12  
V10 GND\_V10  
V9 GND\_V9  
V6 GND\_V6  
V5 GND\_V5  
V2 GND\_V2  
V1 GND\_V1  
U40 GND\_U40  
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U27 GND\_U27  
U25 GND\_U25  
U23 GND\_U23  
U21 GND\_U21  
U19 GND\_U19  
U17 GND\_U17  
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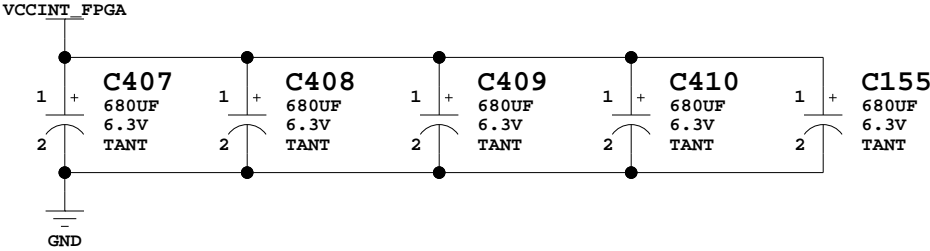
FPGA GND

Title: FPGA GND SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Date:	12-21-2012_13:14	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	43 of 57	Drawn By	DN

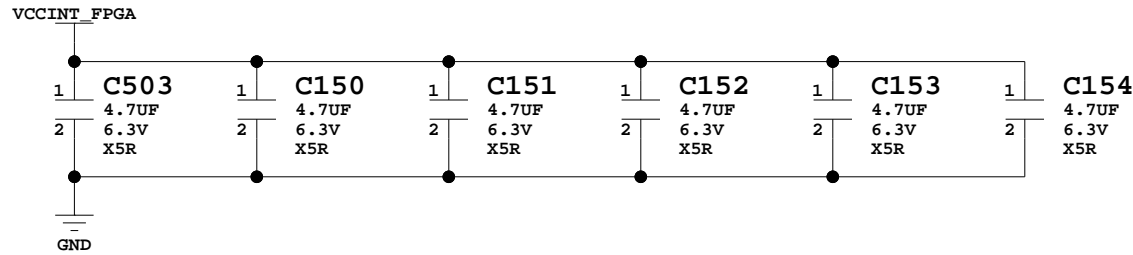
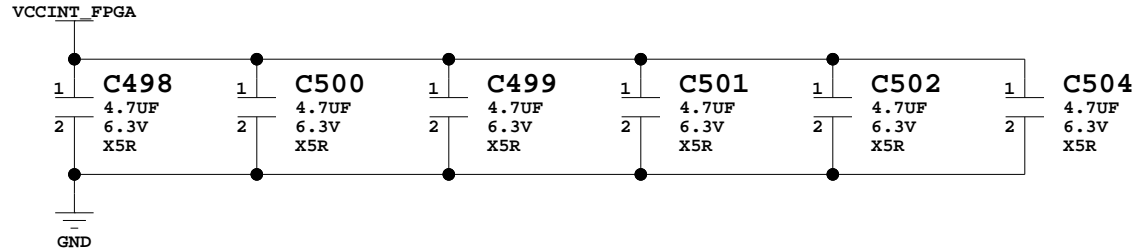
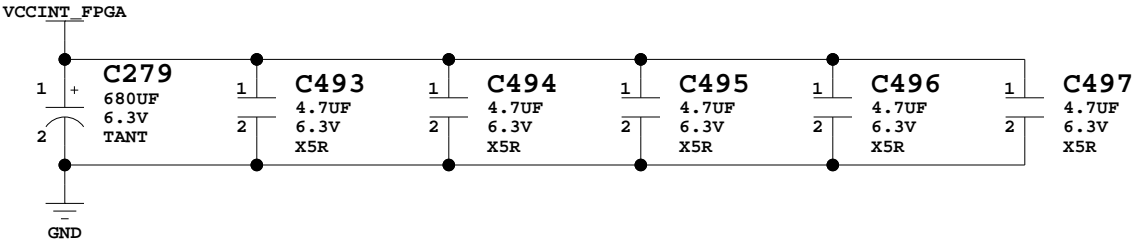
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XC7VX690TFFG1761

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AW24 GND\_AW24  
AW14 GND\_AW14  
AW11 GND\_AW11  
AW7 GND\_AW7  
AW3 GND\_AW3  
AV37 GND\_AV37  
AV27 GND\_AV27  
AV17 GND\_AV17  
AV11 GND\_AV11  
AV10 GND\_AV10  
AV9 GND\_AV9  
AV5 GND\_AV5  
AV2 GND\_AV2  
AV1 GND\_AV1  
AU40 GND\_AU40  
AU30 GND\_AU30  
AU20 GND\_AU20  
AU11 GND\_AU11  
AU7 GND\_AU7  
AU3 GND\_AU3  
AT33 GND\_AT33  
AT23 GND\_AT23  
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AR10 GND\_AR10  
AR9 GND\_AR9  
AR7 GND\_AR7  
AR3 GND\_AR3  
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AP5 GND\_AP5  
AP2 GND\_AP2  
AP1 GND\_AP1  
AN42 GND\_AN42  
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AN3 GND\_AN3  
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AM25 GND\_AM25  
AM15 GND\_AM15  
AM10 GND\_AM10  
AM9 GND\_AM9  
AM5 GND\_AM5  
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AL38 GND\_AL38  
AL28 GND\_AL28  
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AL7 GND\_AL7  
AL3 GND\_AL3  
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AH6 GND\_AH6  
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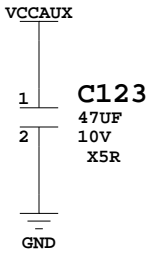
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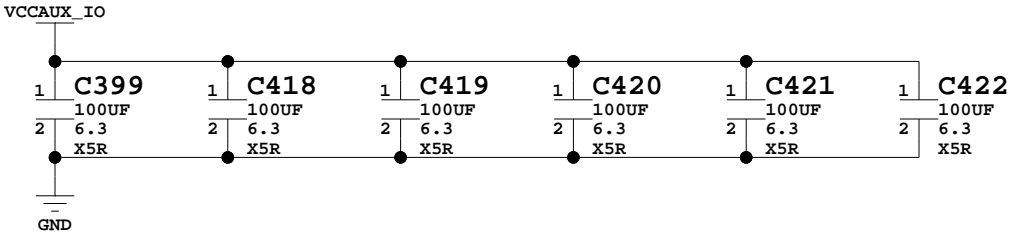
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VCCAUX 47uF (1)

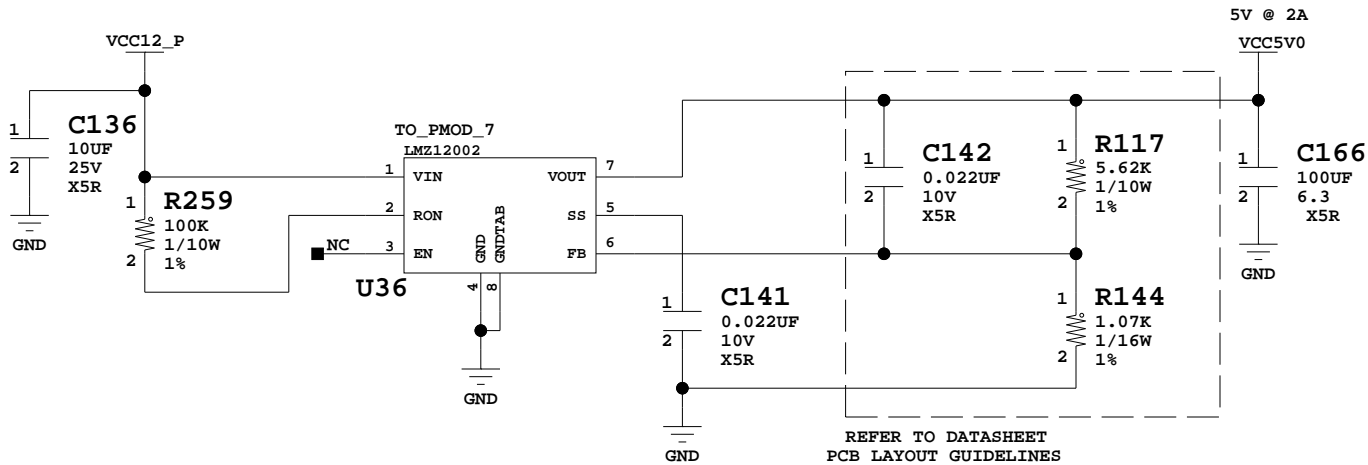
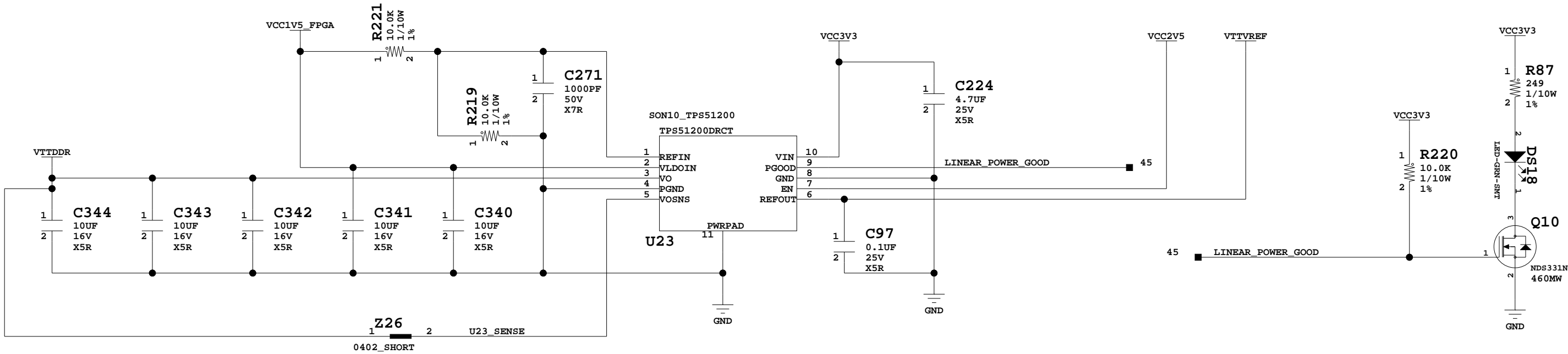


VCCAUX\_IO 100uF (6)



FPGA Bypass Capacitors

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		FPGA Bypass Capacitors SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	44 of 57	Drawn By	DN



## Linear Power Supplies



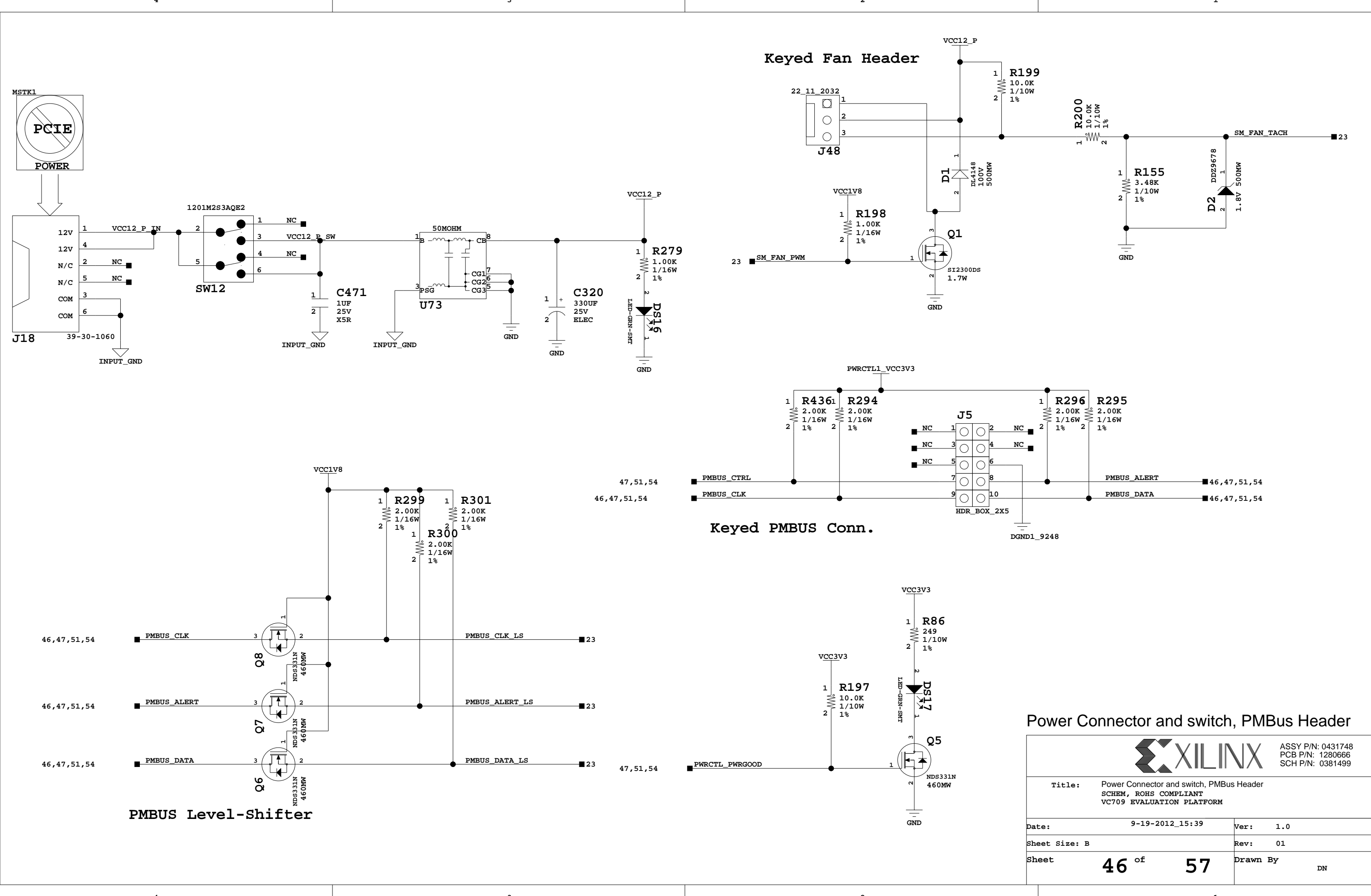
ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

Title: Linear Power Supplies  
SCHEM, ROHS COMPLIANT  
VC709 EVALUATION PLATFORM


Date: 9-19-2012\_15:39 Ver: 1.0

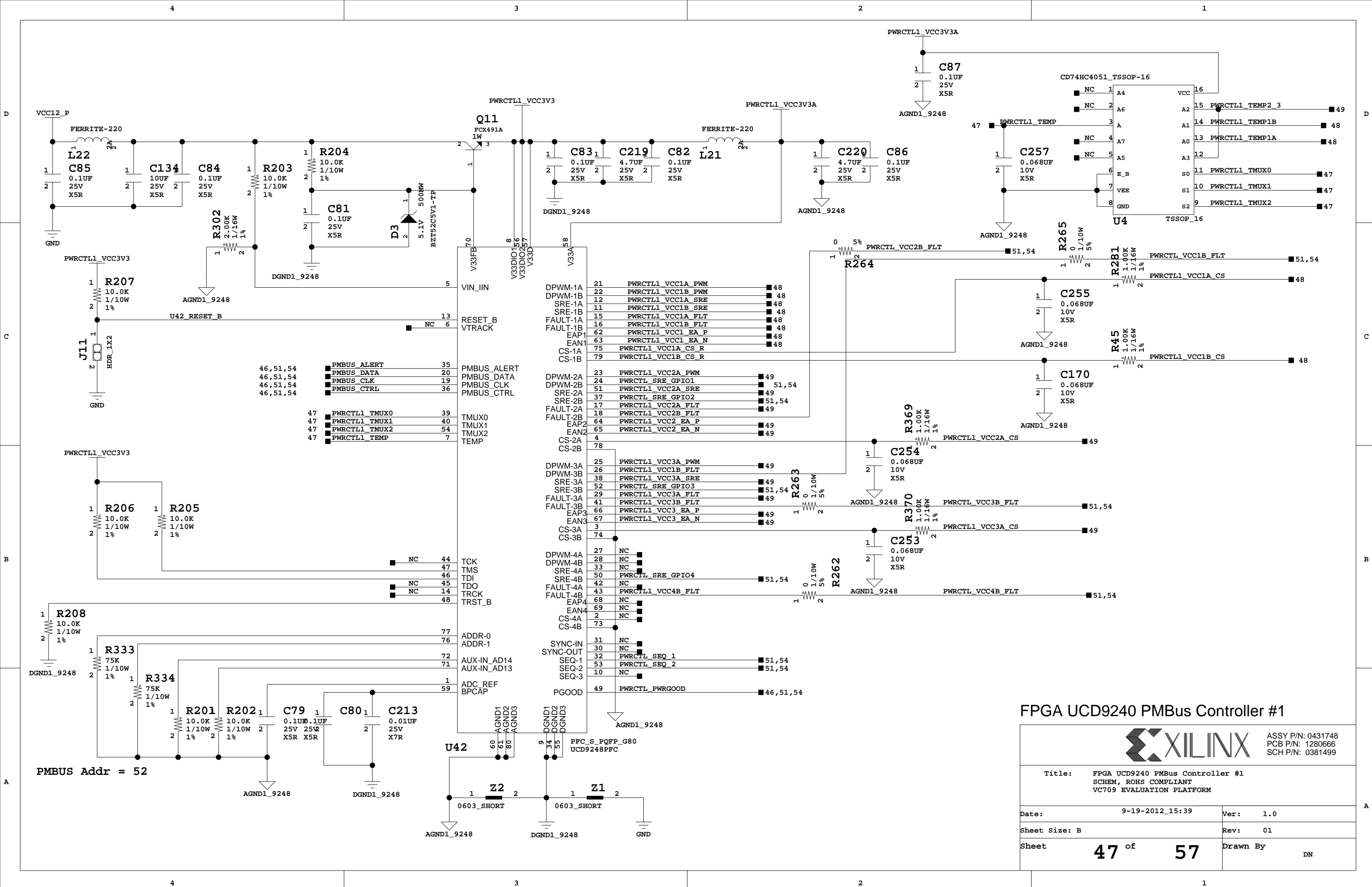
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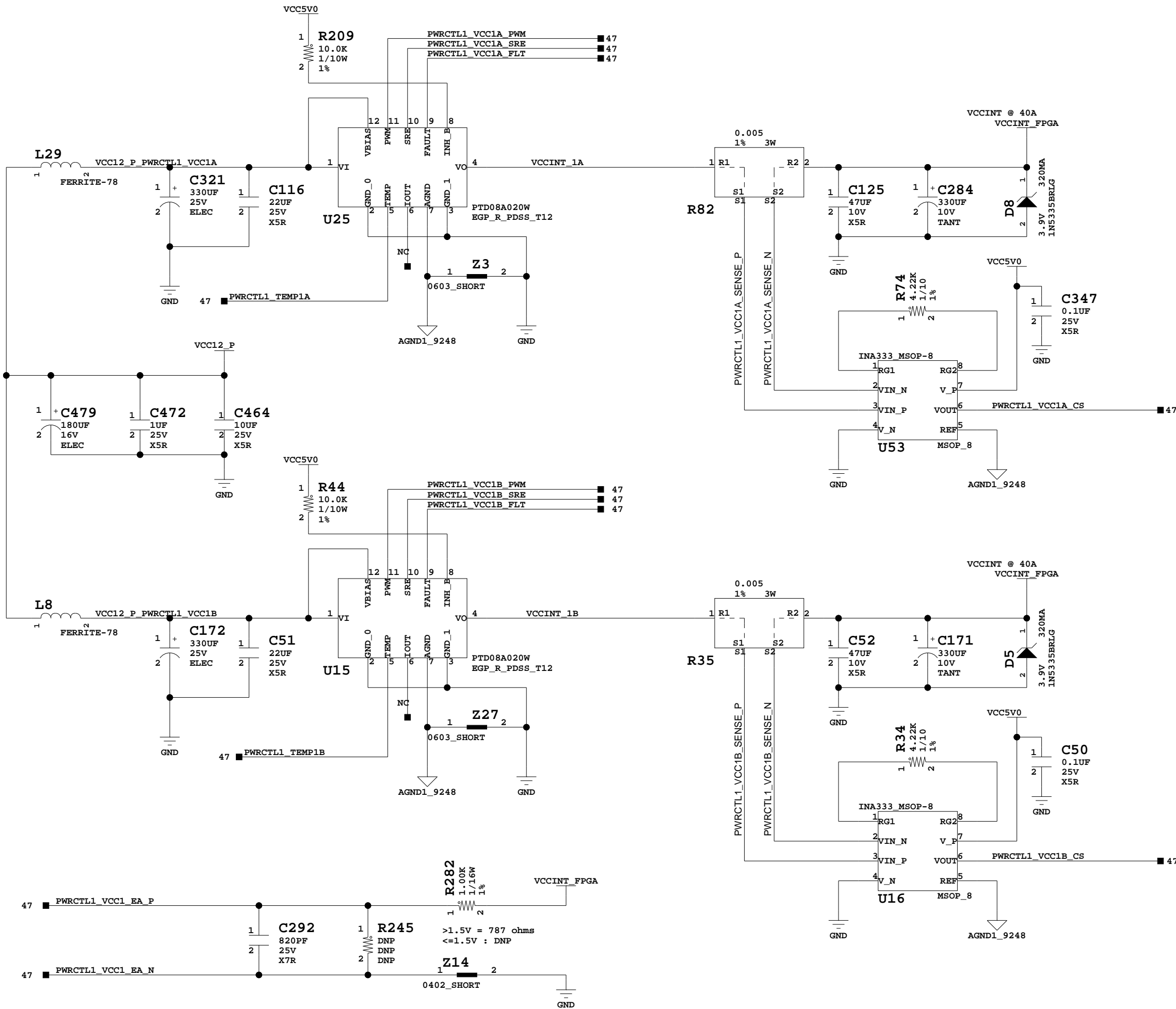
Sheet 45 of 57 Drawn By DN



Power Connector and switch, PMBus Header

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		Power Connector and switch, PMBus Header SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	46 of 57	Drawn By	DN





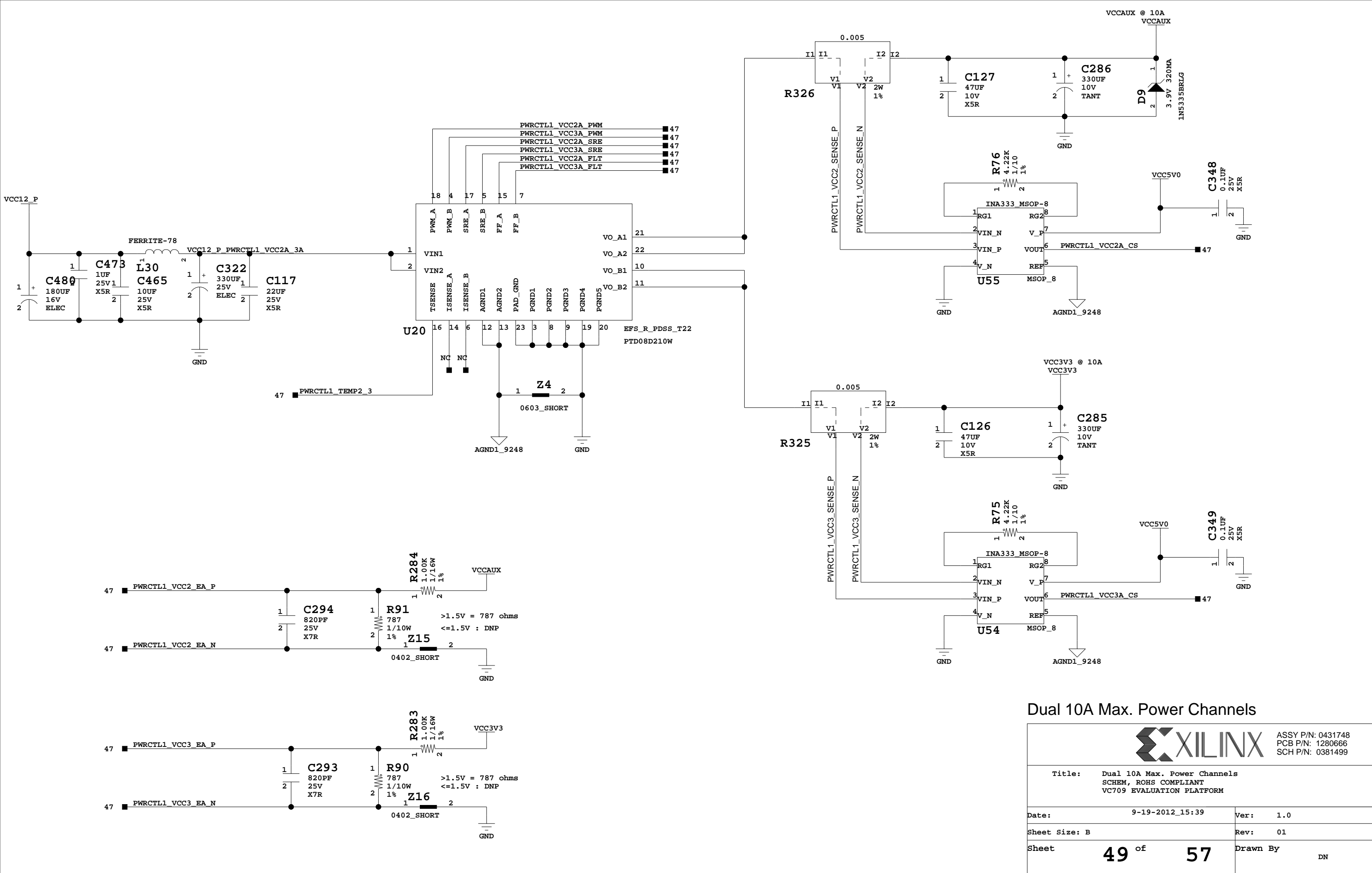
## 2XPTD08A020W 40A Max. Power Channel



ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

Title: PTD08A010W 20A Max. Power Channel SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date: 9-19-2012_15:39	Ver: 1.0
Sheet Size: B	Rev: 01
Sheet 48 of 57	Drawn By DN





Dual 10A Max. Power Channels

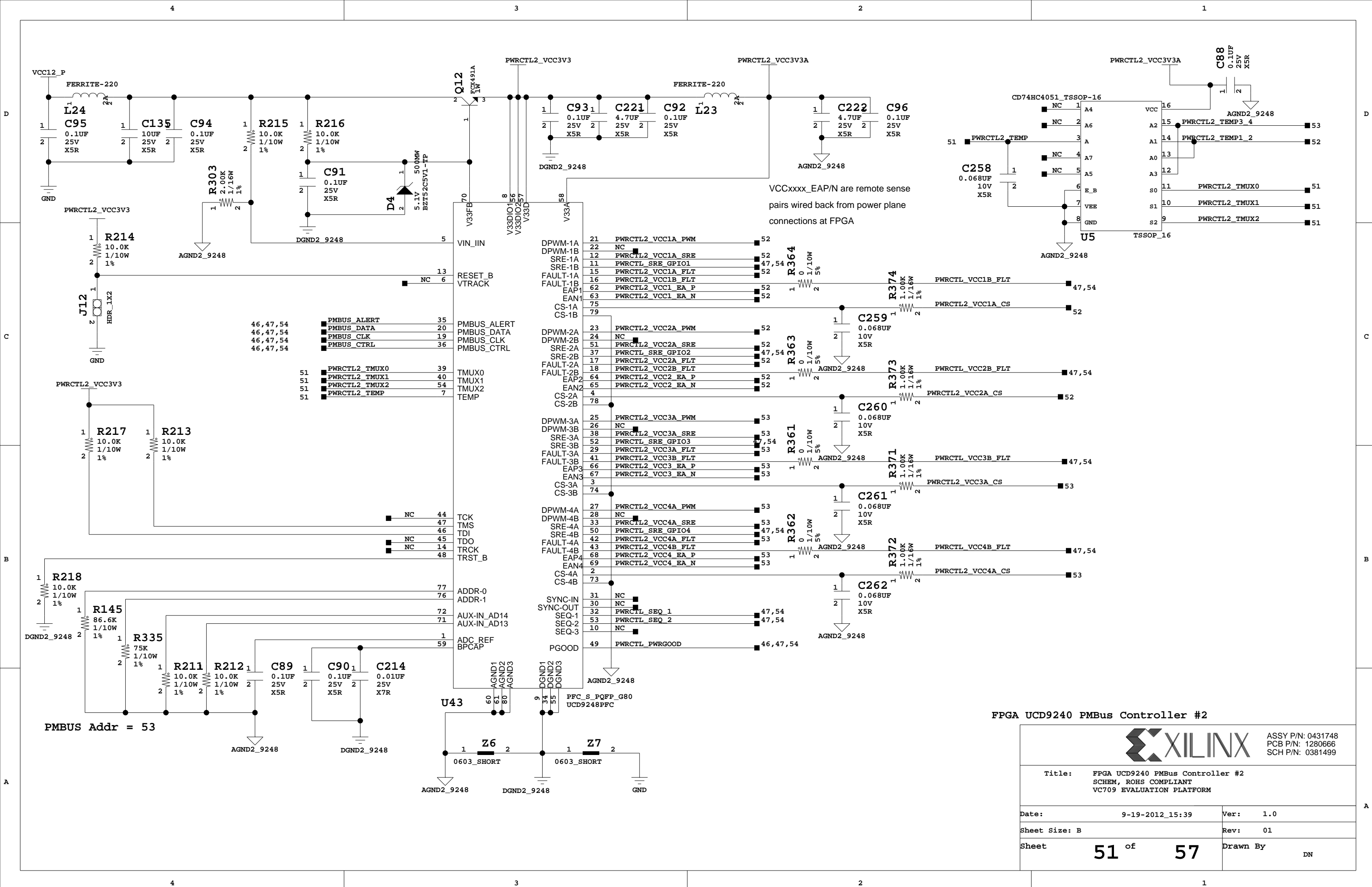
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Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	49 of 57	Drawn By	DN

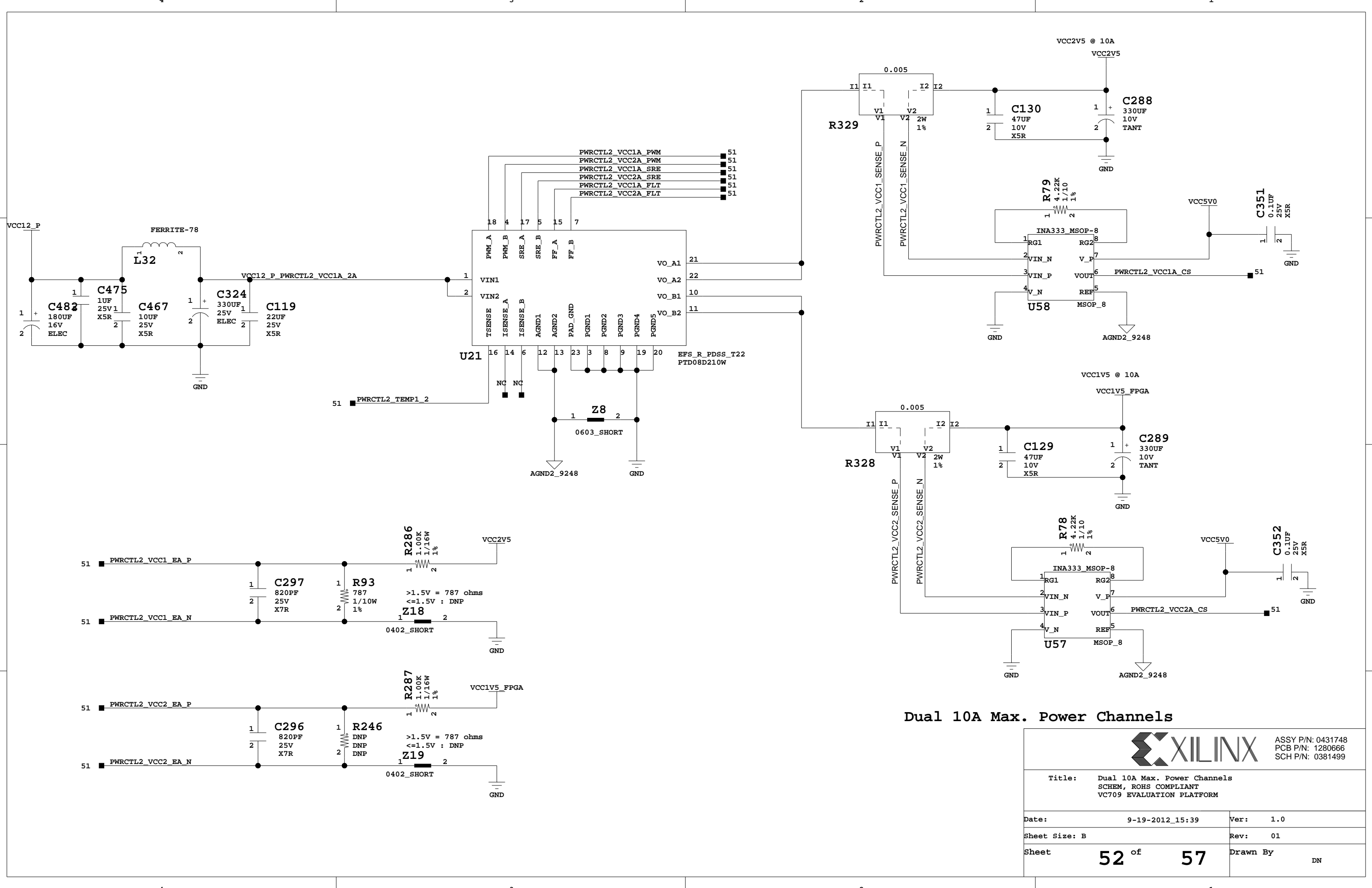
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ASSY P/N: 0431748  
PCB P/N: 1280666  
SCH P/N: 0381499

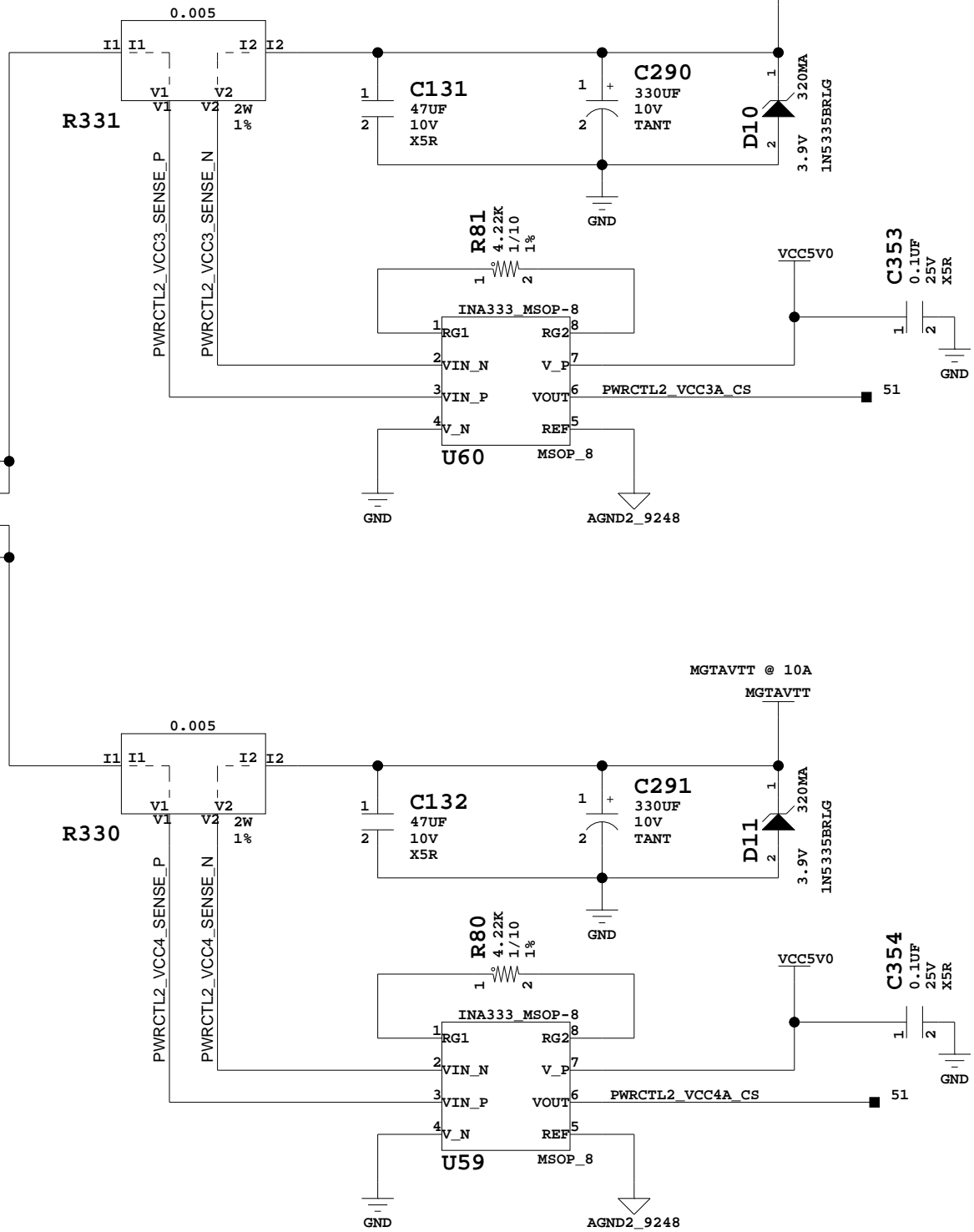
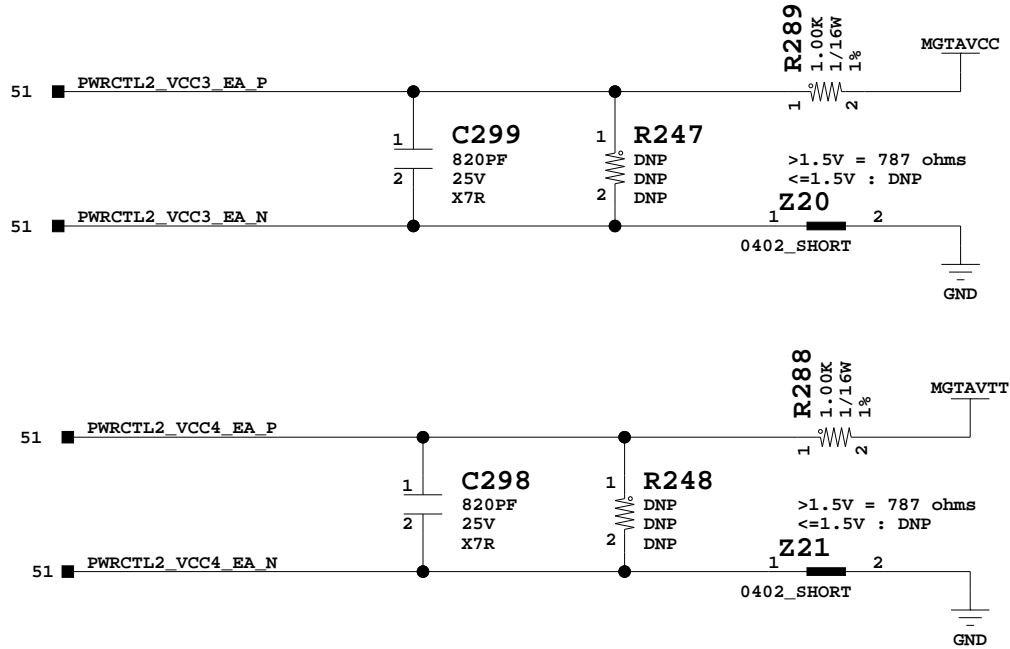
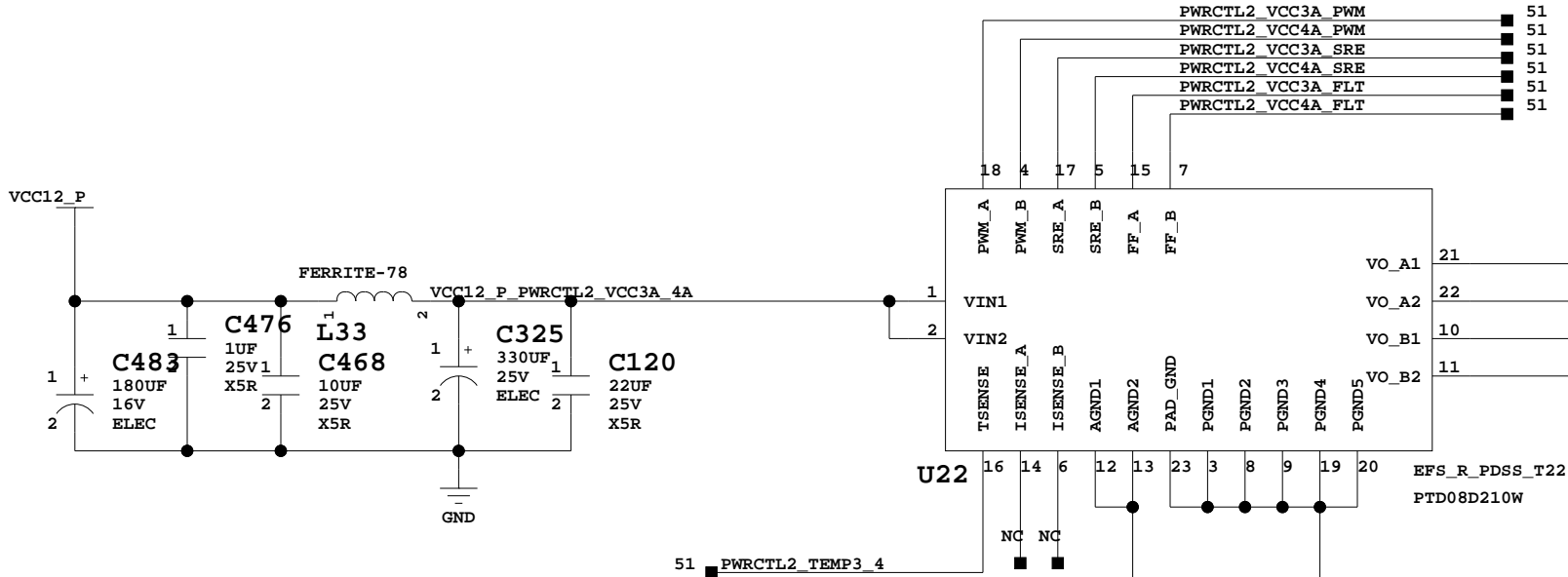
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Date: 9-19-2012_15:39	Ver: 1.0
Sheet Size: B	
Rev: 01	
Sheet 50 of 57	Drawn By DN







Dual 10A Max. Power Channels

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title: Dual 10A Max. Power Channels SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM			
Date: 9-19-2012_15:39		Ver: 1.0	
Sheet Size: B		Rev: 01	
Sheet 52 of 57		Drawn By DN	

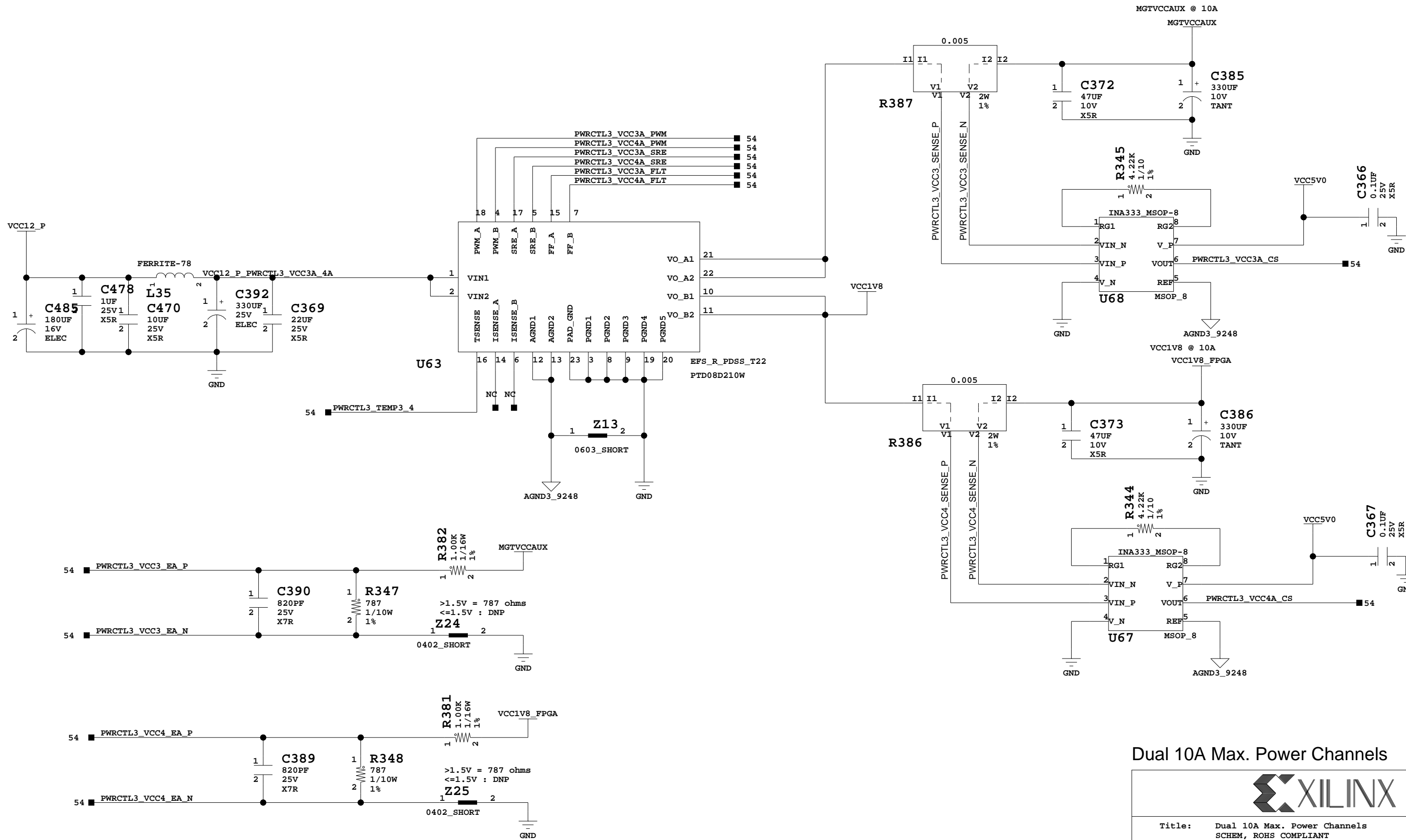


## Dual 10A Max. Power Channels


		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title: Dual 10A Max. Power Channels SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM			
Date: 9-19-2012_15:39		Ver: 1.0	
Sheet Size: B		Rev: 01	
Sheet 53 of 57		Drawn By DN	

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
<b>Title:</b> FPGA UCD9240 PMBus Controller #3 SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM			
<b>Date:</b> 9-19-2012_15:39		<b>Ver:</b> 1.0	
<b>Sheet Size:</b> B		<b>Rev:</b> 01	
<b>Sheet</b> 54 of                      57		<b>Drawn By</b> DN	





## Dual 10A Max. Power Channels

		ASSY P/N: 0431748 PCB P/N: 1280666 SCH P/N: 0381499	
Title:		Dual 10A Max. Power Channels SCHEM, ROHS COMPLIANT VC709 EVALUATION PLATFORM	
Date:	9-19-2012_15:39	Ver:	1.0
Sheet Size:	B	Rev:	01
Sheet	56 of 57	Drawn By	DN



