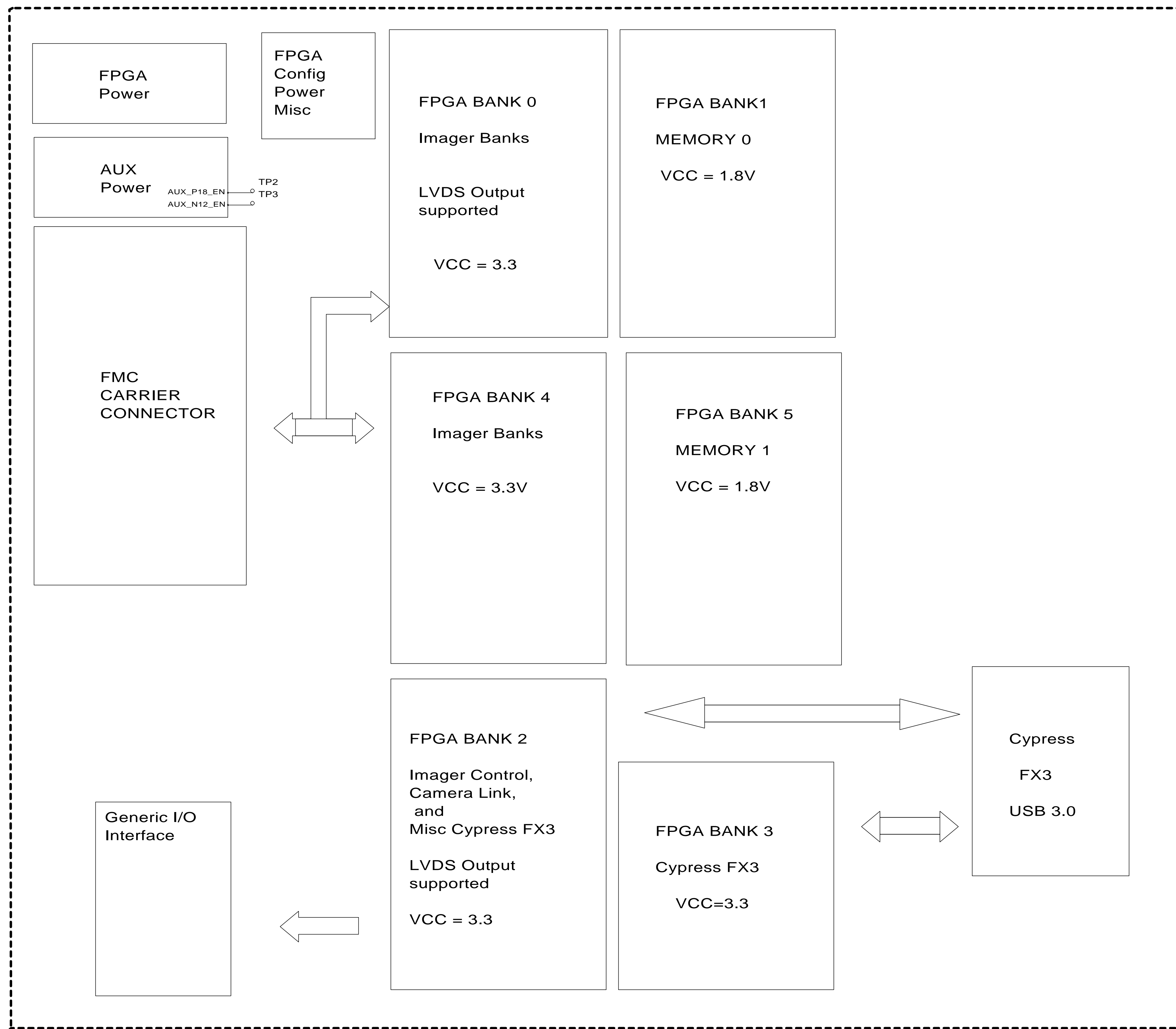
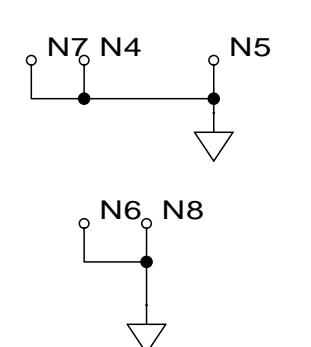


REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL
		See Sheet 3 FPGA CONFIG and POWER	3/1/17	
		See Sheet 15 AUXILIARY POWER	3/1/17	



HSMC
Cameralink
Interface

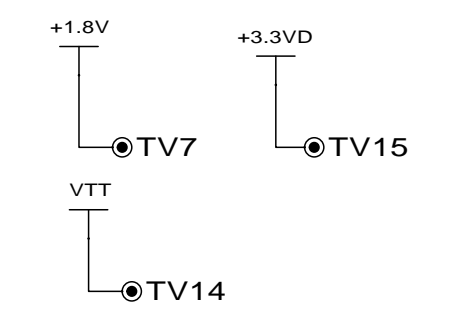
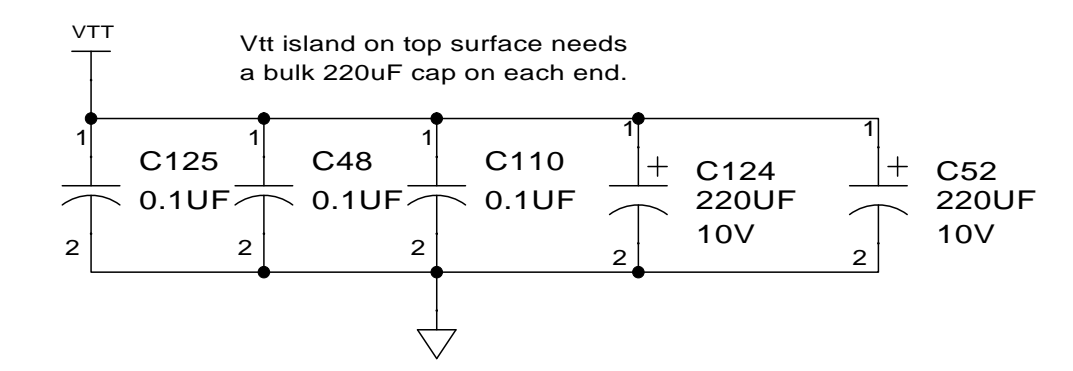
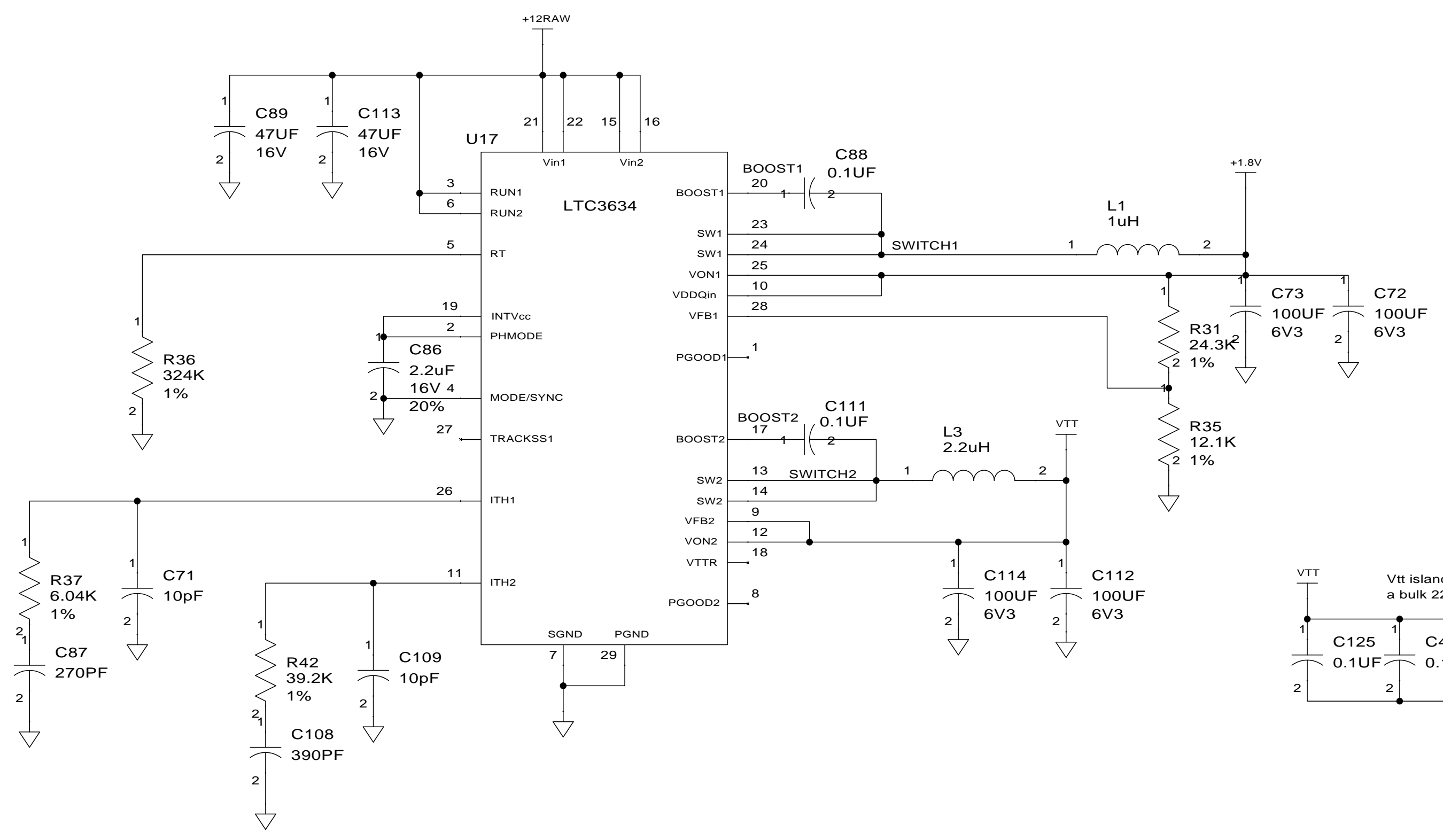
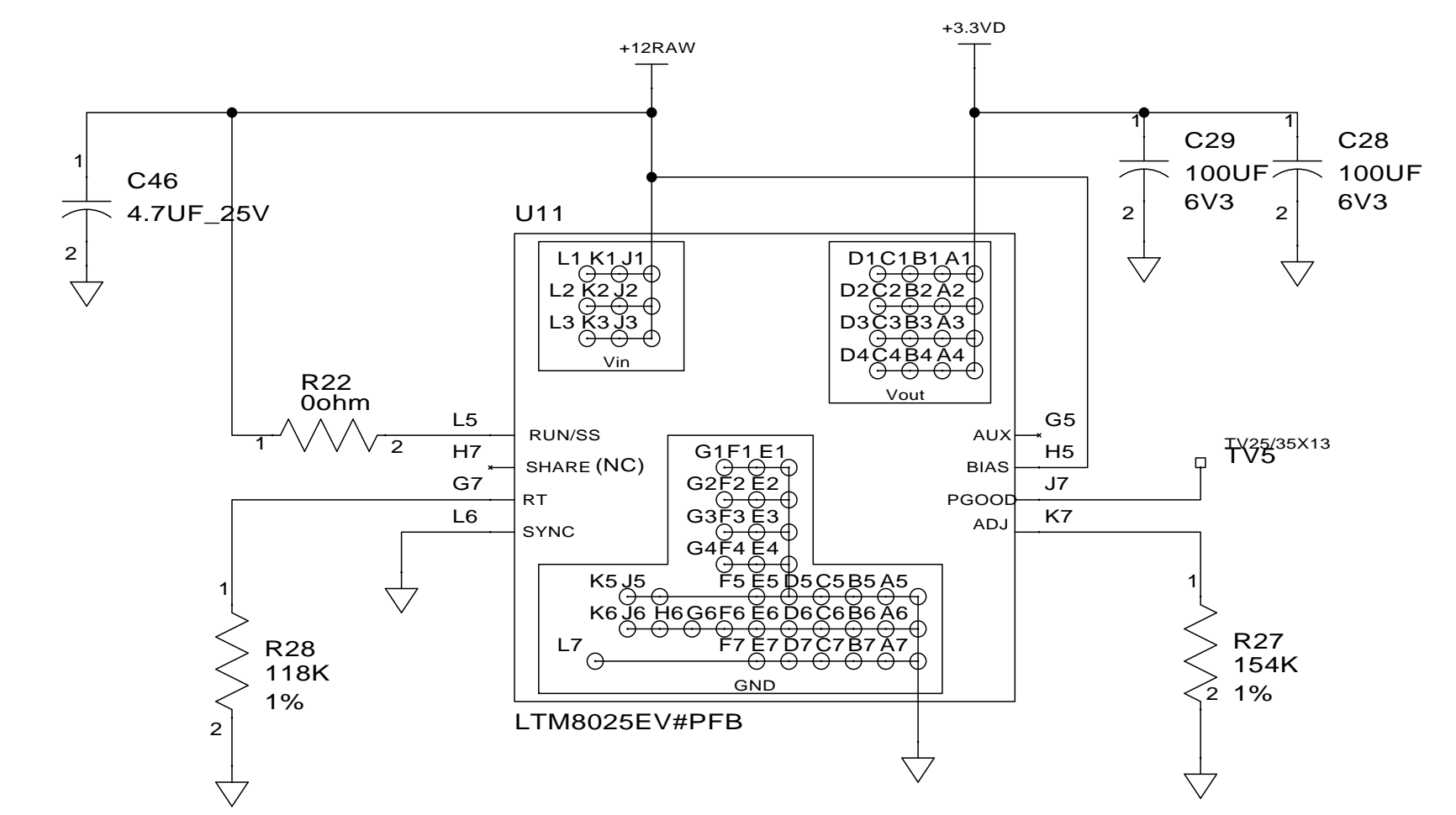
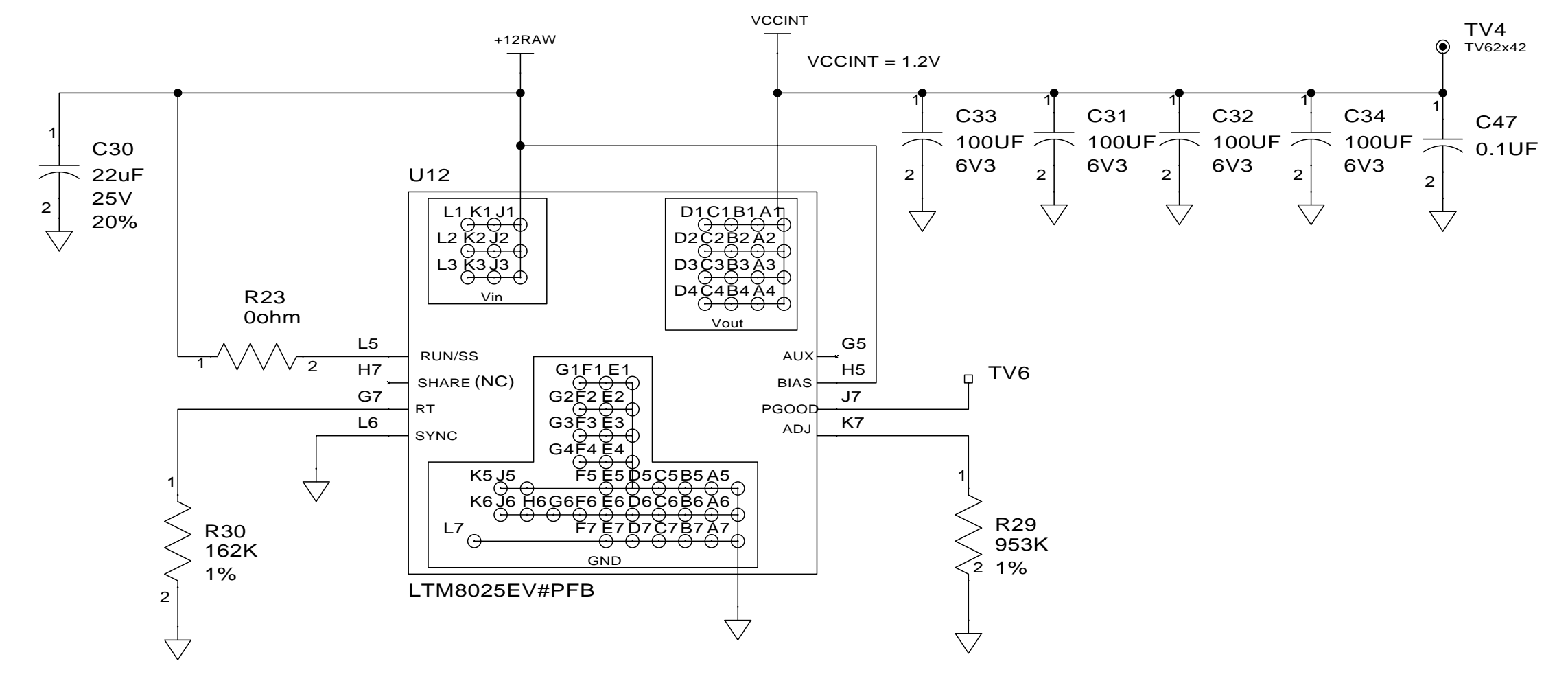
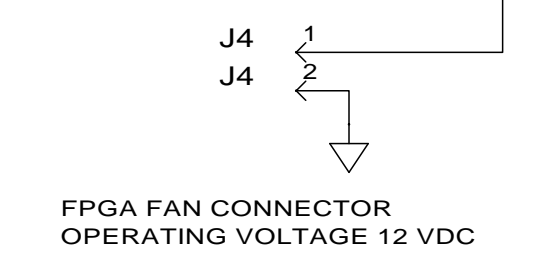
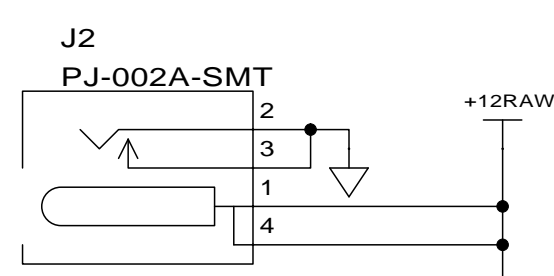
Generic I/O
Interface



FIDUCIALS
 ◦ NFM1 ◦ NFM2 ◦ NFM3
 ◦ NFM4 ◦ NFM5 ◦ NFM6

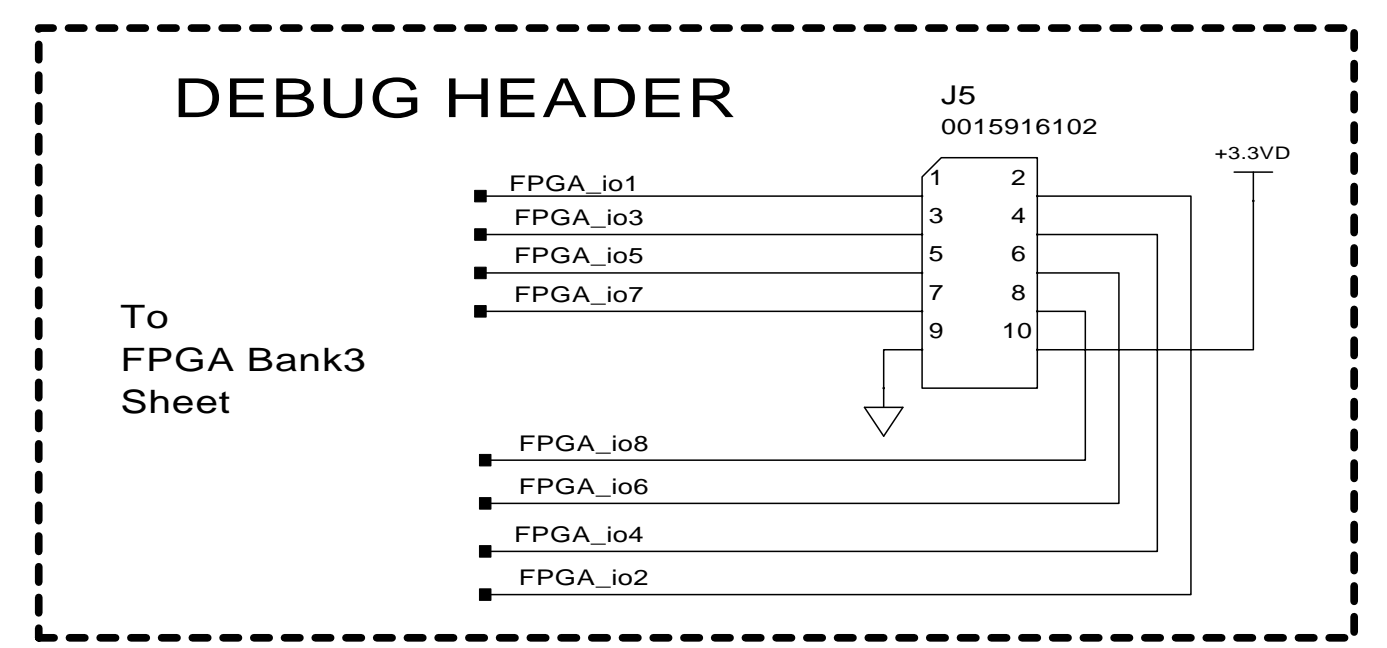
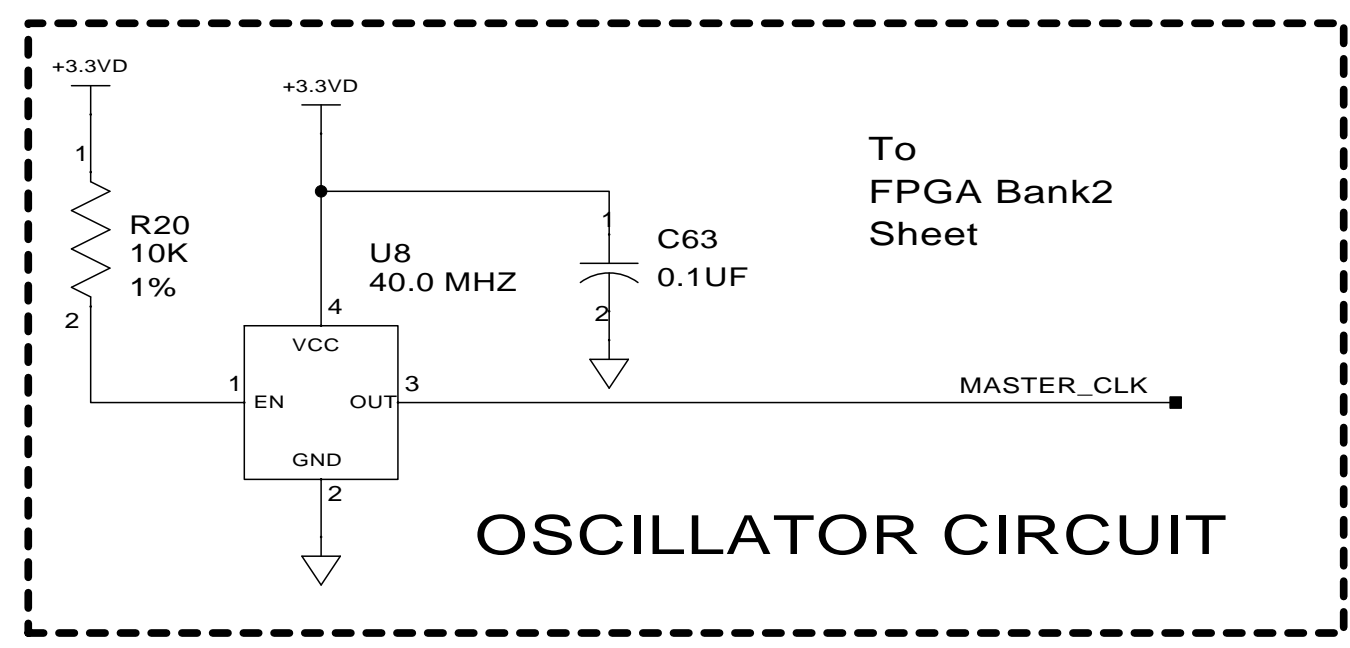
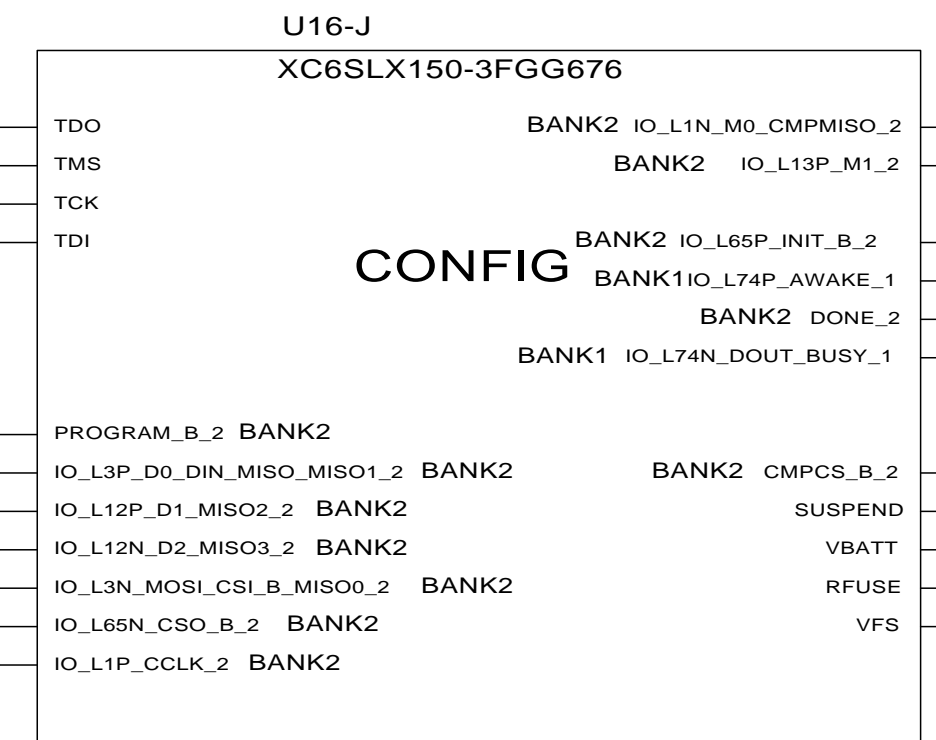
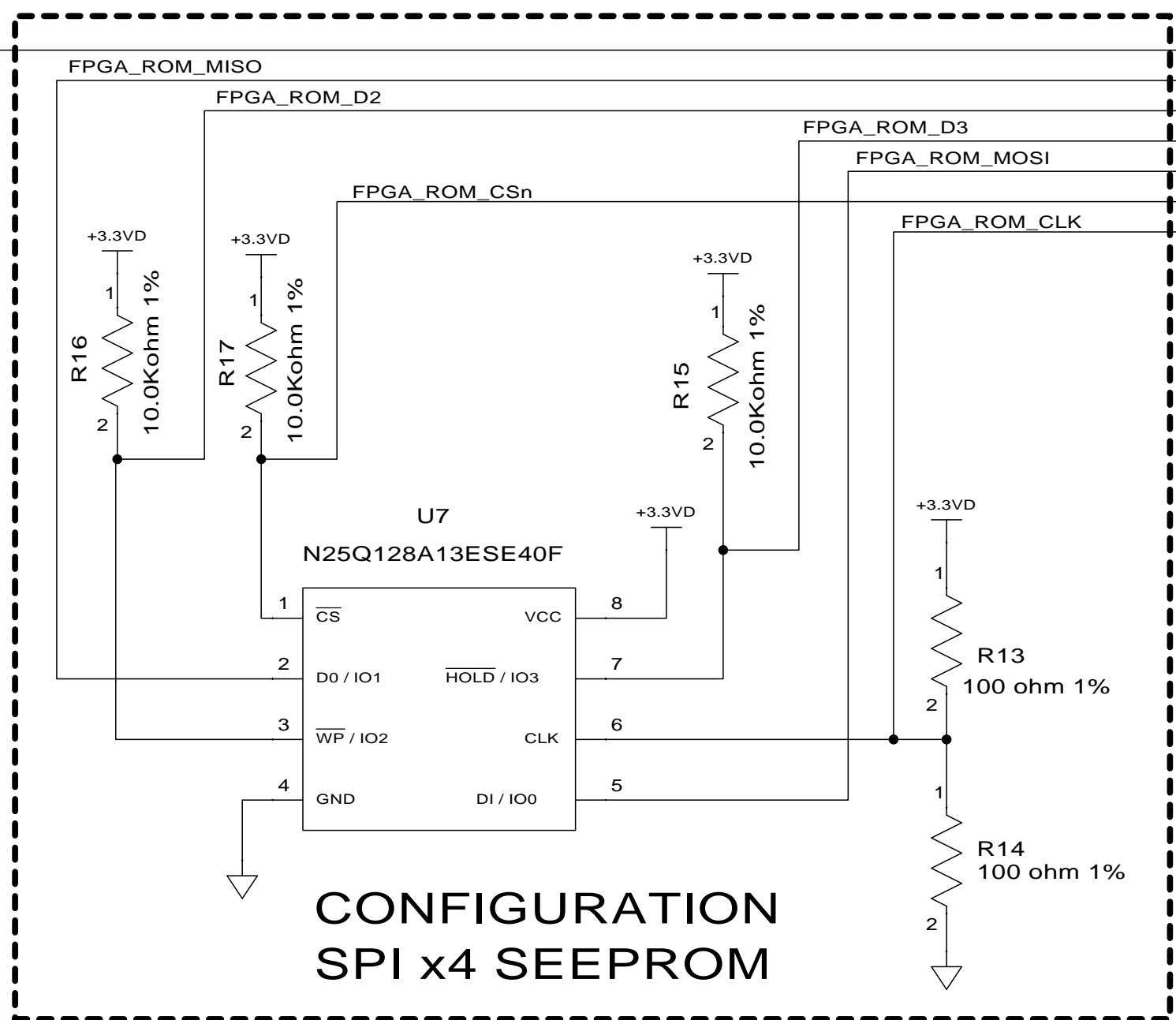
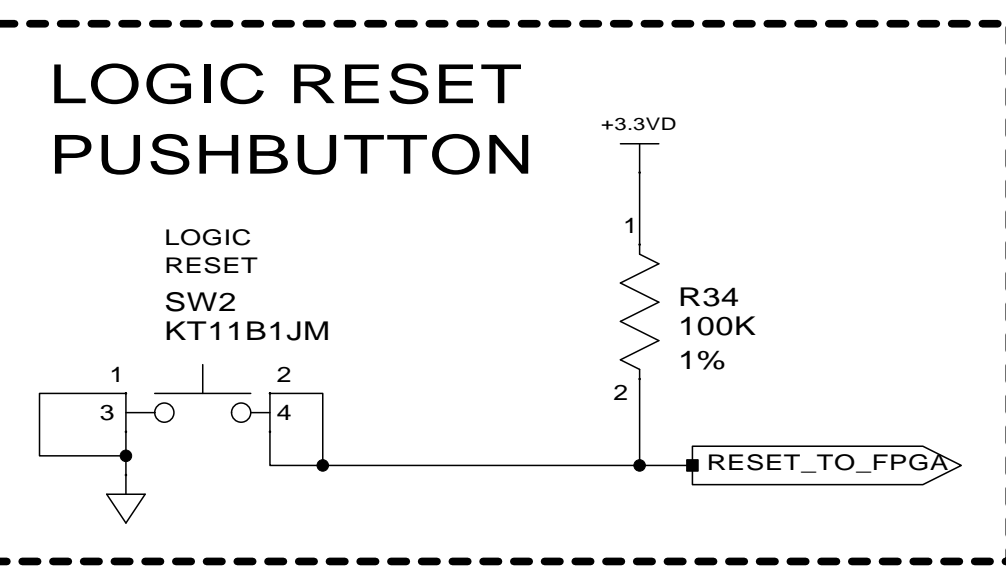
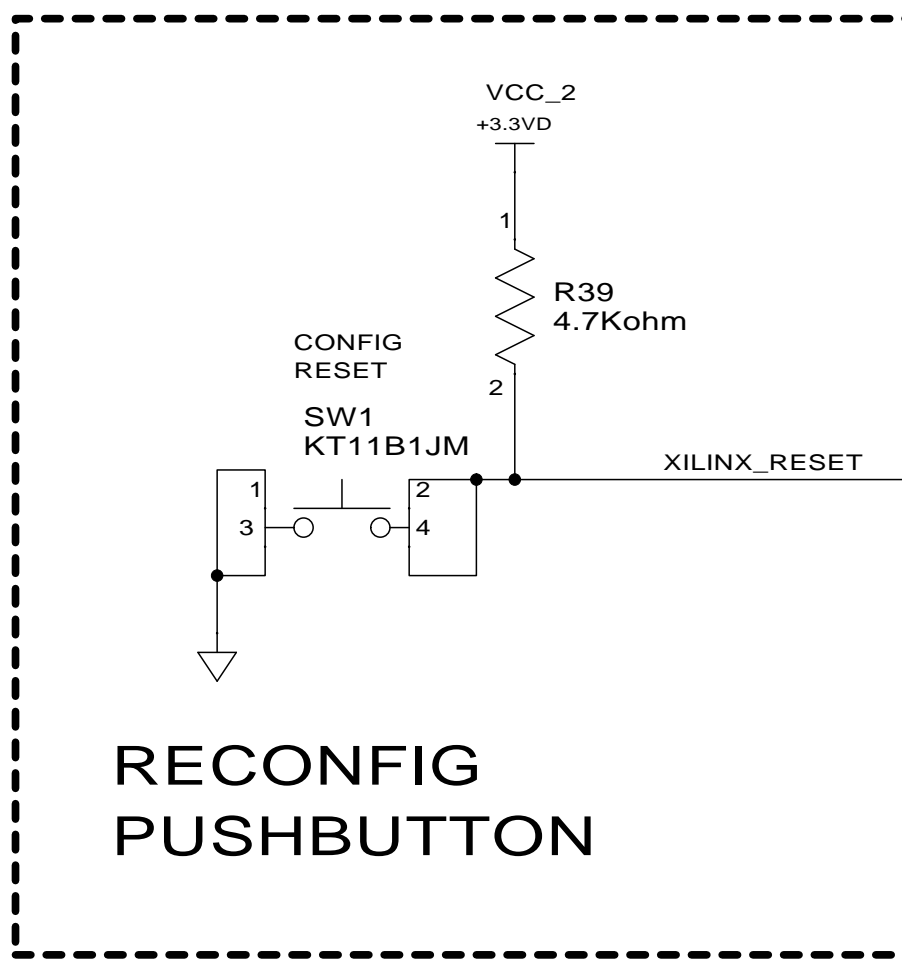
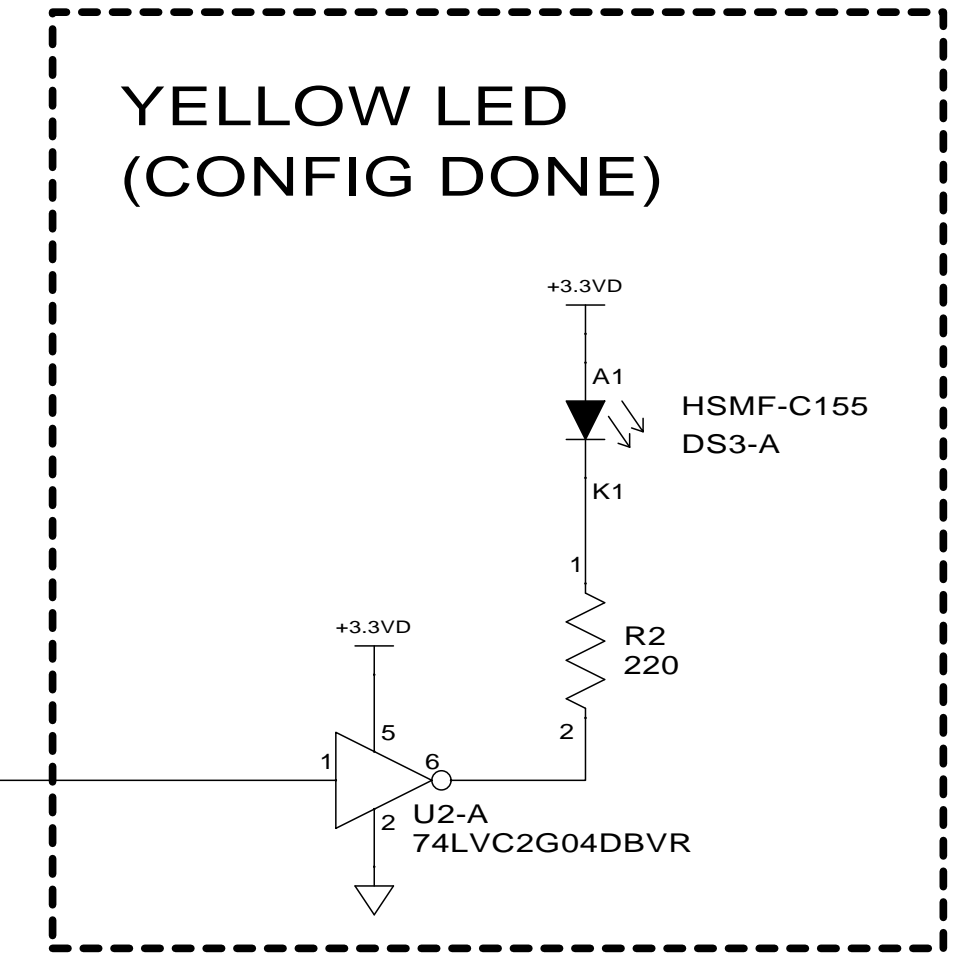
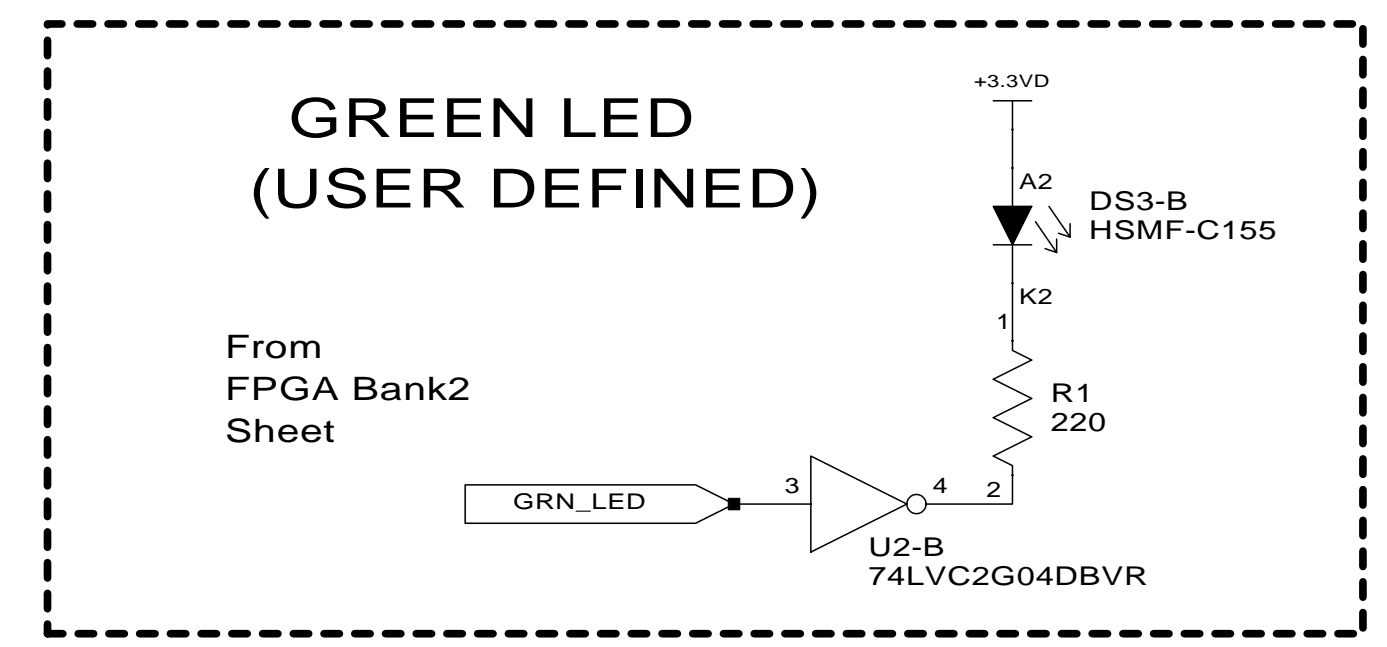
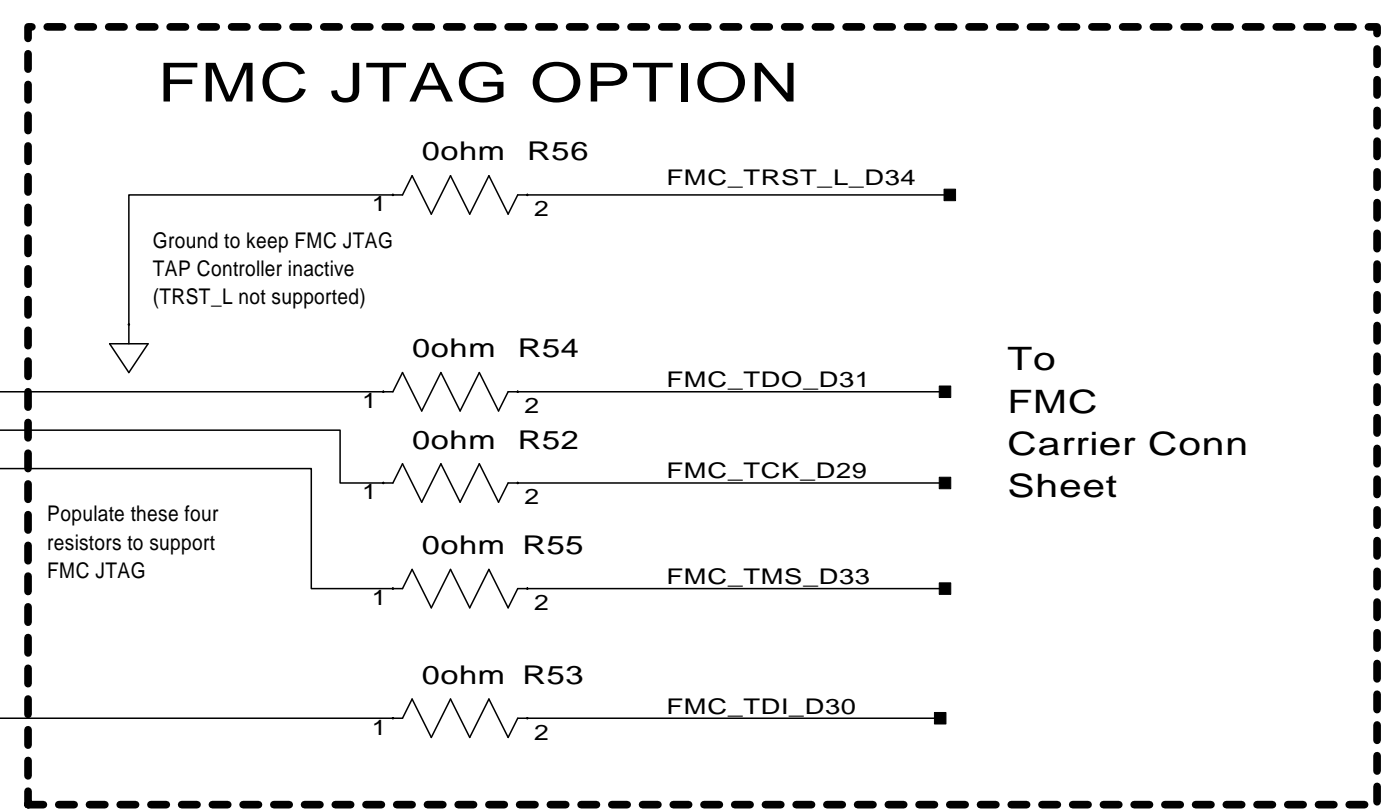
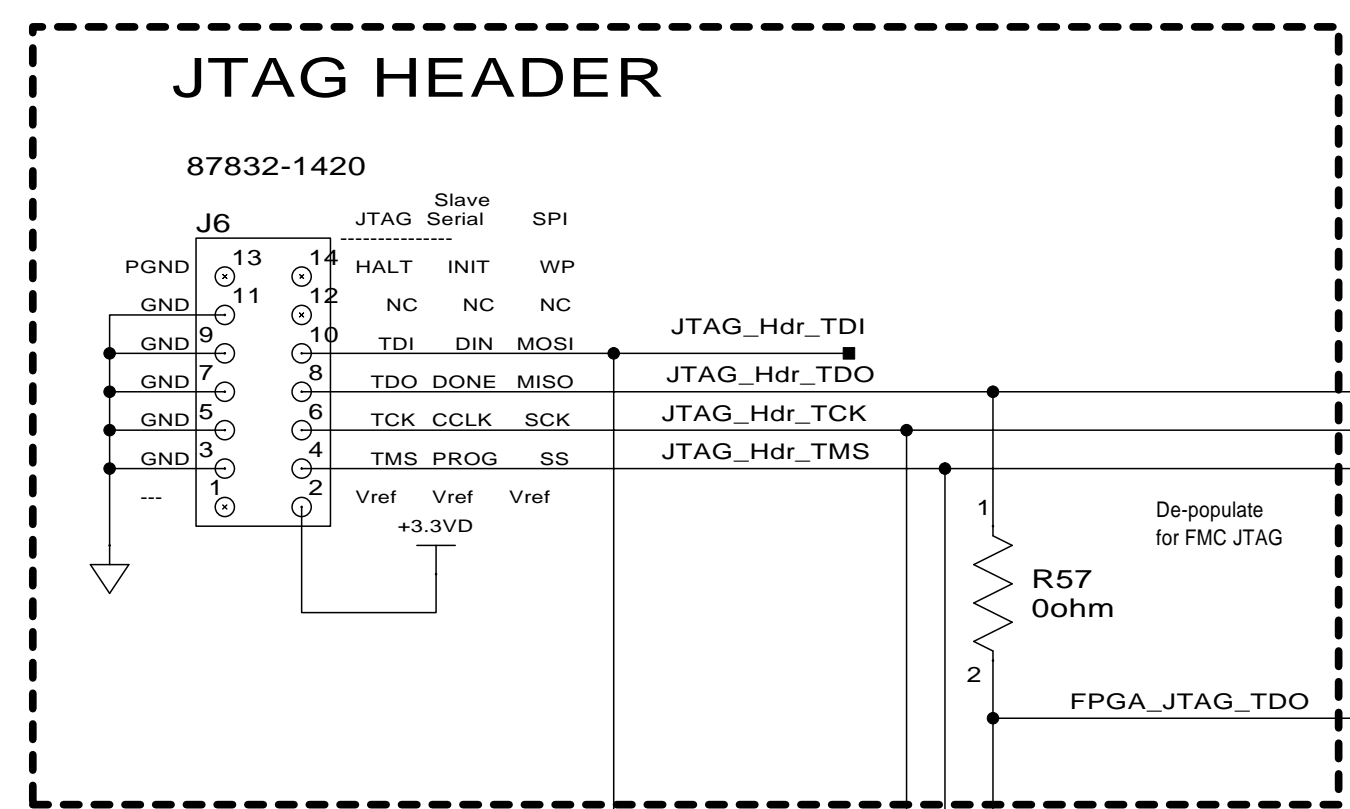
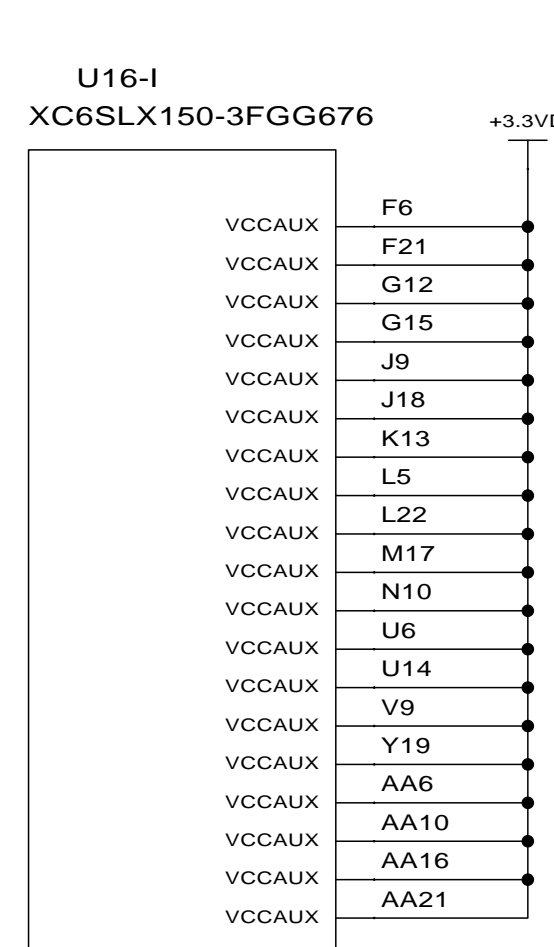
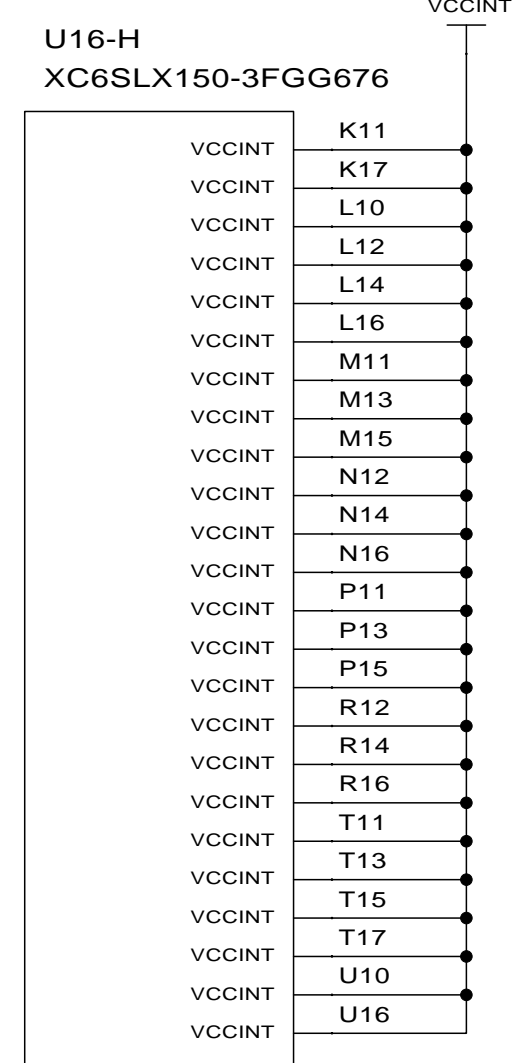
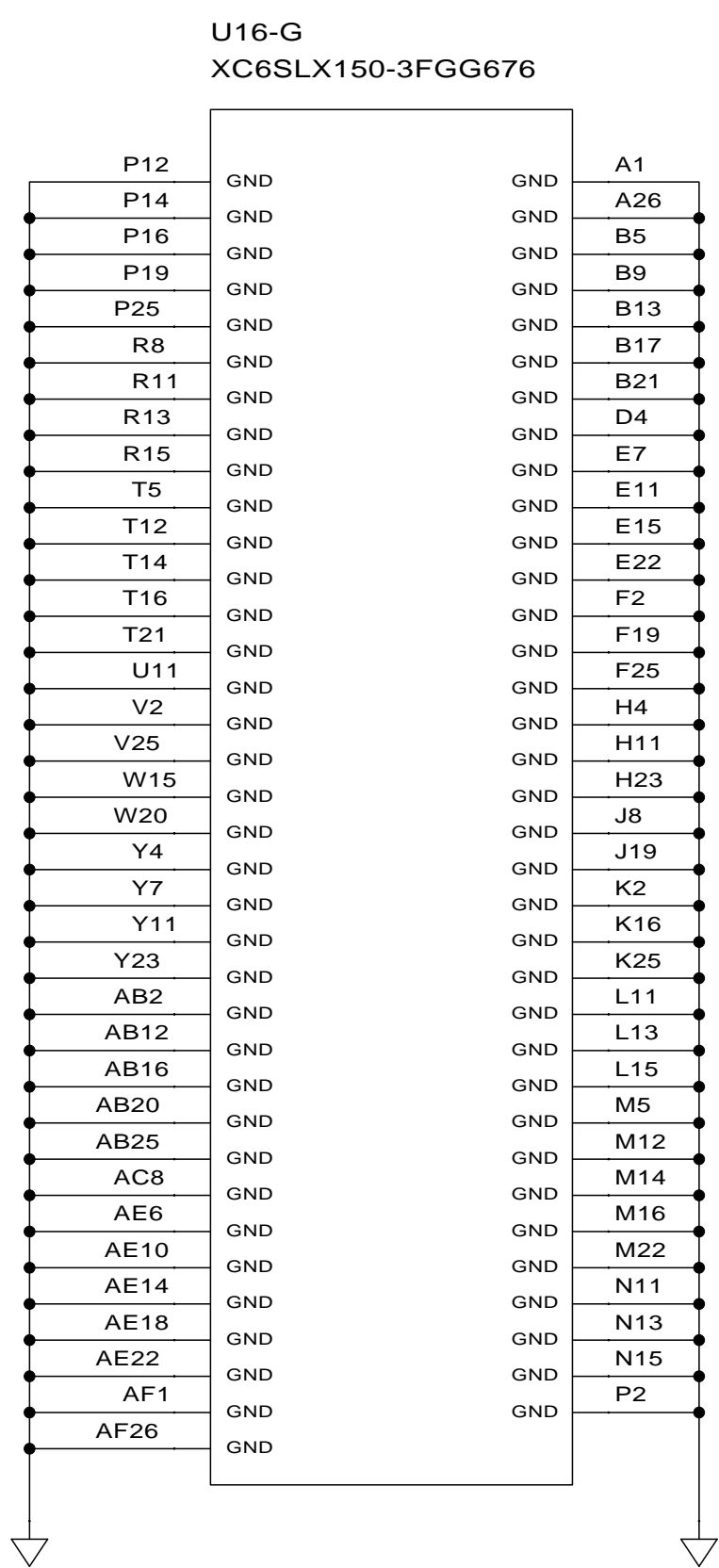
		UNLESS OTHERWISE SPECIFIED		MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE 0S .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
		DIM. ARE IN				DR		NAME	
		2 PL DEC TOL ±				QA CHK		G3 FMC FPGA	
		3 PL DEC TOL ±				ENGR		EVALUATION BOARD	
		ANGULAR TOL ±				ENGR		TOP LEVEL	
		SURF ROUGHNESS				ECN NO.		SIZE	
		EDGES				REL DATE		D	
		INSIDE RADII				3/1/2017		DWG NO.	
								PCB # 30001303 REV 1	
NEXT ASSY		USED ON		NEXT ASSY		REL DATE		ASSEM # 31000039 REV 2	
APPLICATION		QUANTITY REQD						SCALE	
								PROGRAM CADSTAR	
								SHEET 1 of 15	

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL



UNLESS OTHERWISE SPECIFIED				MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN				FINISH		DR		NAME	
2 PL DEC TOL +				✓		QA CHK		G3 FMC FPGA	
3 PL DEC TOL +						ENGR		EVALUATION BOARD	
ANGULAR TOL +						ENGR		FPGA POWER SUPPLIES	
SURF ROUGHNESS						ECN NO.		SIZE	
EDGES						REL DATE		D	
INSIDE RADII						3/1/2017		DWG NO.	
NEXT ASSY		USED ON		NEXT ASSY		FINAL ASSY		PCB # 30001303 REV 1	
APPLICATION		QUANTITY REQD						ASSEM # 31000039 REV 2	
								SCALE	
								PROGRAM CADSTAR	
								SHEET 2 of 15	

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL
B-6		Changed U7 to N25Q128A13ESE40	3/1/17	



UNLESS OTHERWISE SPECIFIED				MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN				FINISH		DR		NAME	
2 PL DEC TOL				✓		QA CHK		G3 FMC FPGA EVALUATION BOARD	
3 PL DEC TOL				✓		ENGR		FPGA CONFIG and POWER	
ANGULAR TOL				✓		ENGR		Jim DiBella	
SURF ROUGHNESS				✓		ECN NO.		SIZE D DWG NO. PCB # 30001303 REV 1 ASSEM # 31000039 REV 2	
EDGES				✓		REL DATE		SCALE	
INSIDE RADII				✓		3/1/2017		PROGRAM CADSTAR SHEET 3 of 15	
NEXT ASSY		USED ON		NEXT ASSY		FINAL ASSY			
APPLICATION		QUANTITY REQD							

8 7 6 5 4 3 2 1

D

D

C

C

B

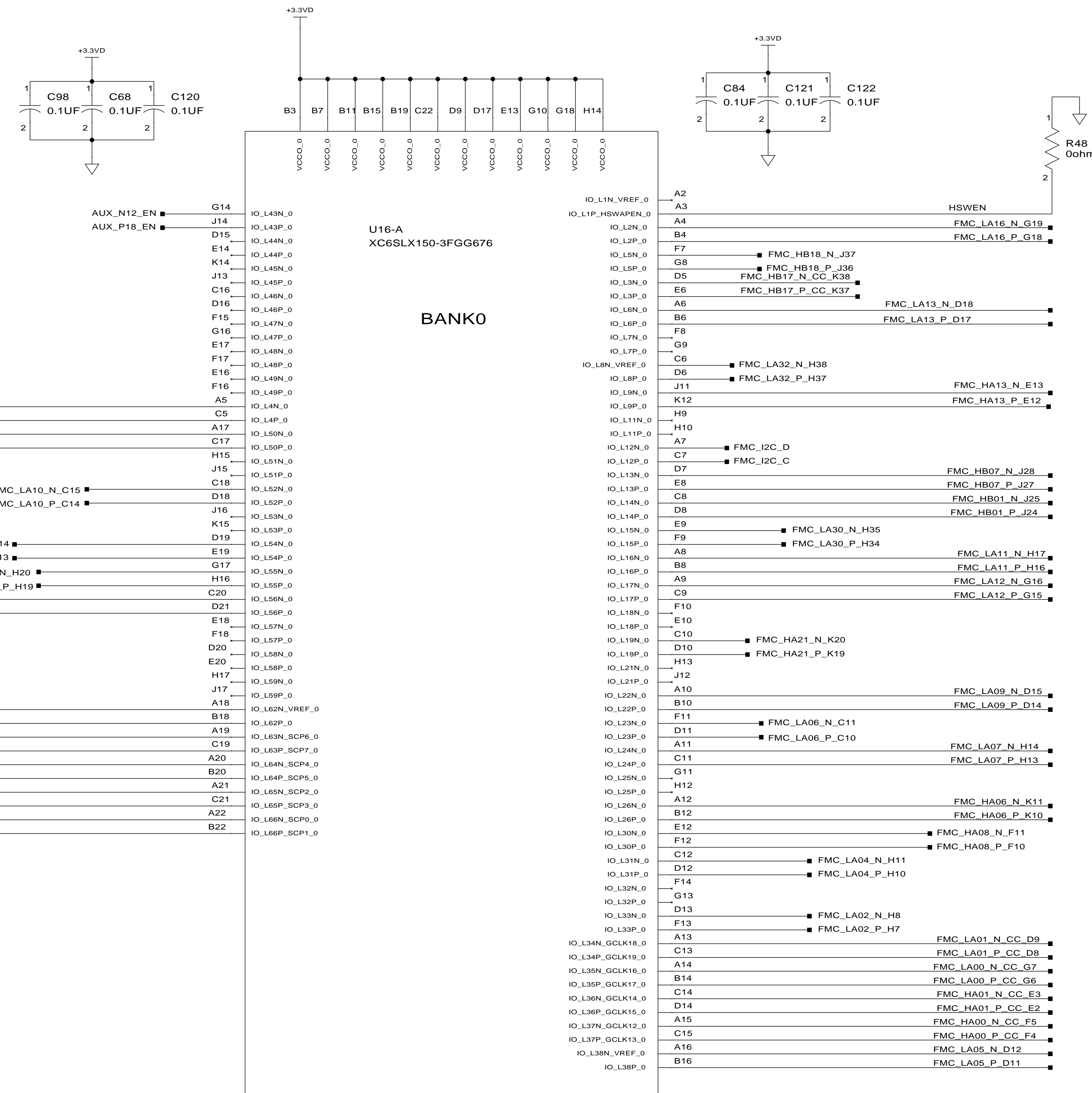
B

A

A

8 7 6 5 4 3 2 1

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL



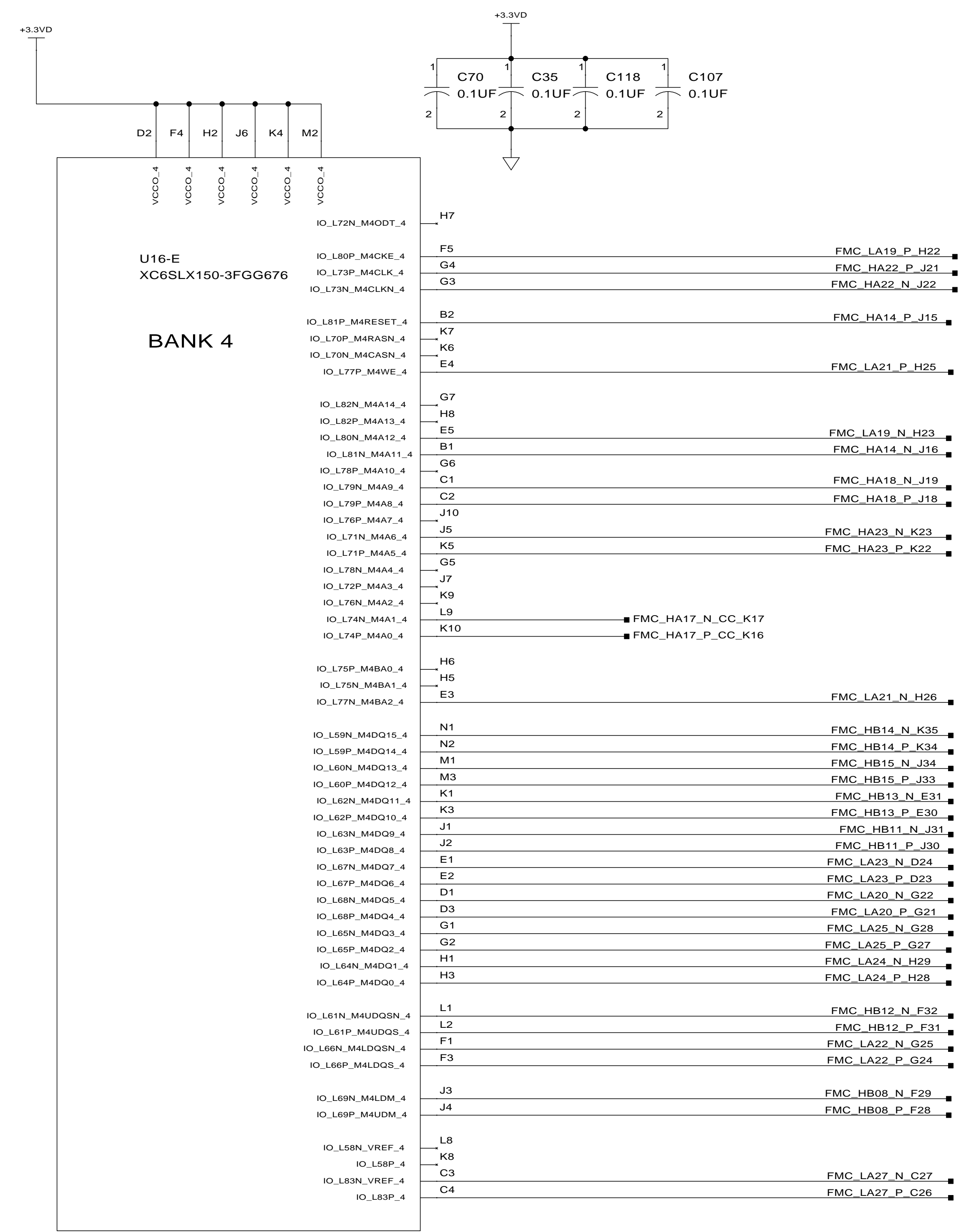
HOT SWAP SETTING

When Low during configuration, enables pull-up resistors in all I/O pins to respective I/O bank VCC0 input, else tristated.

- FMC_LA14_N_C19
- FMC_LA14_P_C18
- FMC_HA07_N_J10
- FMC_HA07_P_J9
- FMC_LA10_N_C15
- FMC_LA10_P_C14
- FMC_HA10_N_K14
- FMC_HA10_P_K13
- FMC_LA15_N_H20
- FMC_LA15_P_H19
- FMC_HA11_N_J13
- FMC_HA11_P_J12
- FMC_HA09_N_E10
- FMC_HA09_P_E9
- FMC_HA02_N_K8
- FMC_HA02_P_K7
- FMC_HA04_N_F8
- FMC_HA04_P_F7
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- FMC_HA05_P_E6
- FMC_HA03_N_J7
- FMC_HA03_P_J6

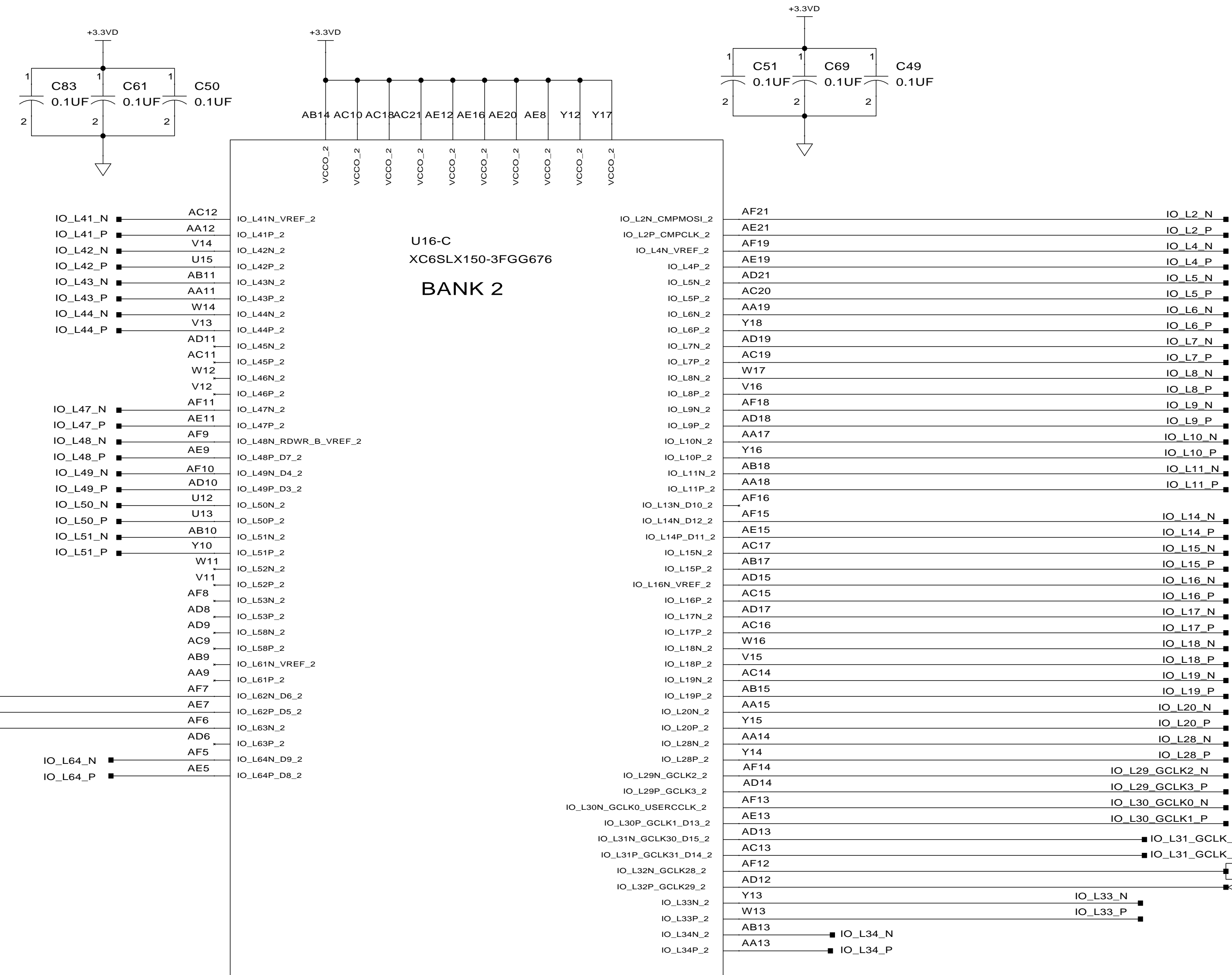
UNLESS OTHERWISE SPECIFIED		MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN		FINISH		DR		NAME	
2 PL DEC TOL ±				QA CHK		G3 FMC FPGA	
3 PL DEC TOL ±				ENGR		EVALUATION BOARD	
ANGULAR TOL ±				ENGR		FPGA BANK 0	
SURF ROUGHNESS				ECN NO.		SIZE D DWG NO. PCB # 30001303 REV 1 ASSEM # 31000039 REV 2	
EDGES				REL DATE		SCALE	
INSIDE RADII				3/1/2017		PROGRAM CADSTAR SHEET 4 of 15	
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY				
APPLICATION	QUANTITY REQD						

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL



UNLESS OTHERWISE SPECIFIED		MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN		FINISH		DR		NAME	
2 PL DEC TOL ±				QA CHK		G3 FMC FPGA	
3 PL DEC TOL ±				ENGR		EVALUATION BOARD	
ANGULAR TOL ±				ENGR		FPGA BANK 4	
SURF ROUGHNESS				ECN NO.		SIZE D DWG NO. PCB # 30001303 REV 1	
EDGES				REL DATE		ASSEM # 31000039 REV 2	
INSIDE RADII				3/1/2017		SCALE	
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY	PROGRAM CADSTAR		SHEET 5 of 15	
APPLICATION	QUANTITY REQD						

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL



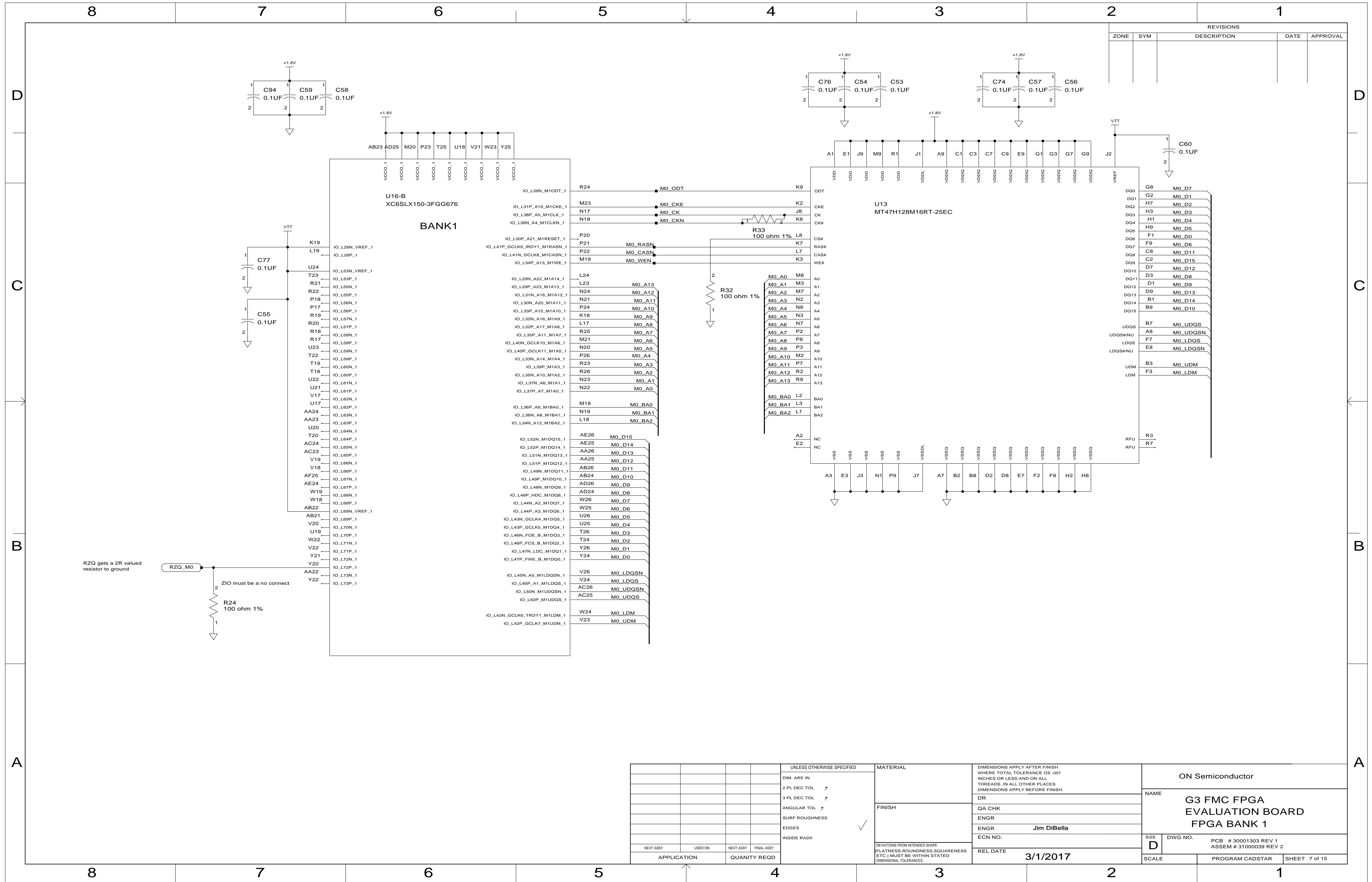
FMC GIO
(Single Ended but routed as diff pairs)

To ->
Cypress USB Sheet
FX3 USB Interface

To
Camera Link
Sheet

To ->
Config Sheet
LED and Oscillator

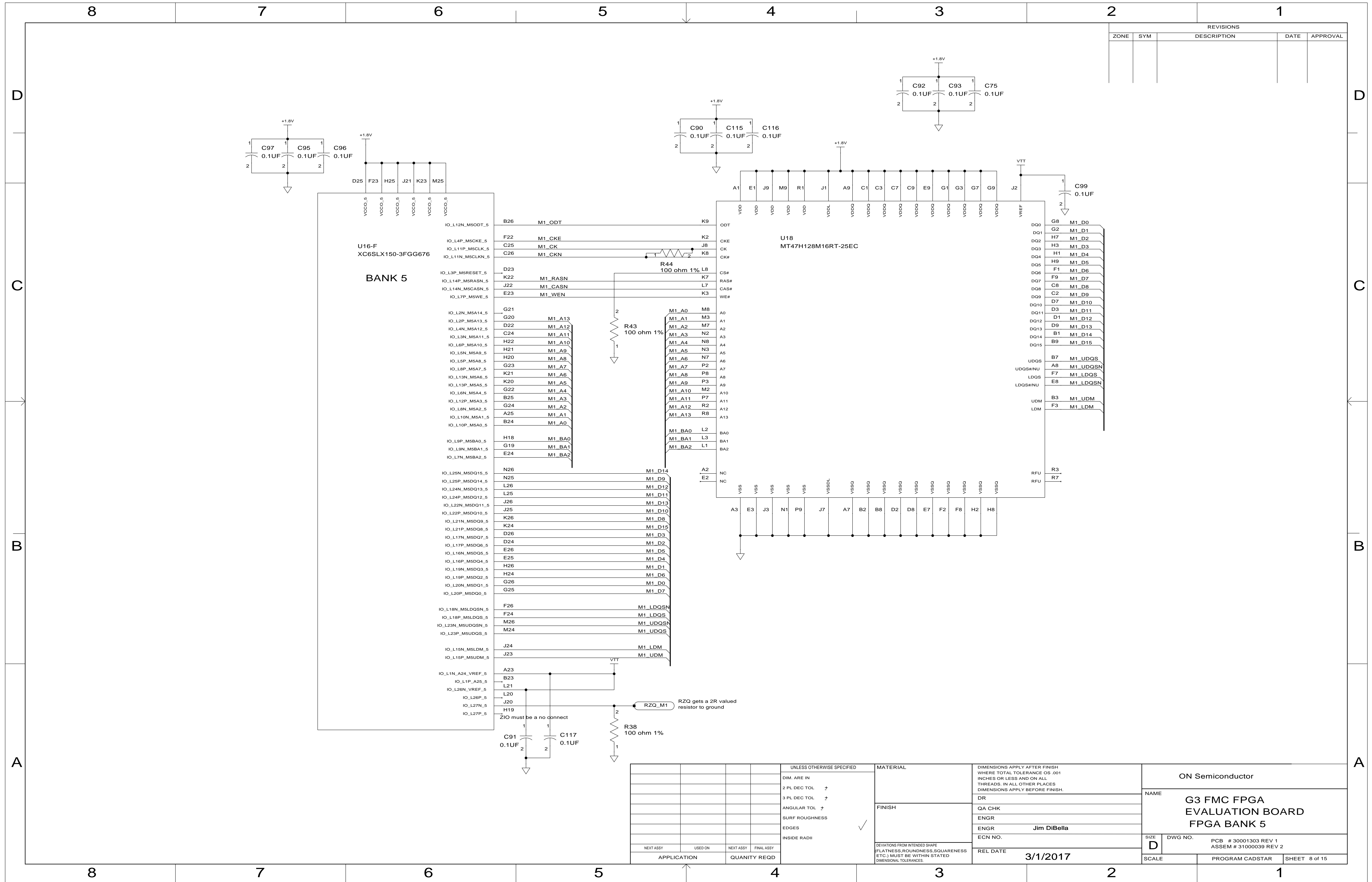
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DIM. ARE IN		FINISH		DR		NAME	
2 PL DEC TOL ±				QA CHK		G3 FMC FPGA	
3 PL DEC TOL ±				ENGR		EVALUATION BOARD	
ANGULAR TOL ±				ENGR		FPGA BANK 2	
SURF ROUGHNESS				ECN NO.		SIZE	
EDGES						D	
INSIDE RADII				REL DATE		DWG NO.	
				3/1/2017		PCB # 30001303 REV 1	
NEXT ASSY		USED ON				ASSEM # 31000039 REV 2	
APPLICATION		QUANTITY REQD				SCALE	
						PROGRAM CADSTAR	
						SHEET 6 of 15	



REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL

IO	Signal
IO_L39N_M10DT_1	M0_ODT
IO_L31P_A19_M1CKE_1	M0_CKE
IO_L38P_A5_M1CLK_1	M0_CK
IO_L38N_A4_M1CLKN_1	M0_CKN
IO_L30P_A21_M1RESET_1	M0_RASN
IO_L41P_GCLK9_IRDY1_M1RASN_1	M0_RASN
IO_L41N_GCLK8_M1CASN_1	M0_CASN
IO_L34P_A13_M1WE_1	M0_WEN
IO_L29N_A22_M1A14_1	M0_A13
IO_L29P_A23_M1A13_1	M0_A12
IO_L31N_A18_M1A12_1	M0_A11
IO_L30N_A20_M1A11_1	M0_A10
IO_L33P_A15_M1A10_1	M0_A9
IO_L32N_A16_M1A9_1	M0_A8
IO_L32P_A17_M1A8_1	M0_A7
IO_L35P_A11_M1A7_1	M0_A6
IO_L40N_GCLK10_M1A6_1	M0_A5
IO_L40P_GCLK11_M1A5_1	M0_A4
IO_L33N_A14_M1A4_1	M0_A3
IO_L39P_A13_1	M0_A3
IO_L35N_A10_M1A2_1	M0_A2
IO_L37N_A6_M1A1_1	M0_A1
IO_L37P_A7_M1A0_1	M0_A0
IO_L36P_A9_M1BA0_1	M0_BA0
IO_L36N_A8_M1BA1_1	M0_BA1
IO_L34N_A12_M1BA2_1	M0_BA2
IO_L52N_M1DQ15_1	M0_D15
IO_L52P_M1DQ14_1	M0_D14
IO_L51N_M1DQ13_1	M0_D13
IO_L51P_M1DQ12_1	M0_D12
IO_L49N_M1DQ11_1	M0_D11
IO_L49P_M1DQ10_1	M0_D10
IO_L48N_M1DQ9_1	M0_D9
IO_L48P_HDC_M1DQ8_1	M0_D8
IO_L44N_A2_M1DQ7_1	M0_D7
IO_L44P_A3_M1DQ6_1	M0_D6
IO_L43N_GCLK4_M1DQ5_1	M0_D5
IO_L43P_GCLK5_M1DQ4_1	M0_D4
IO_L46N_FOE_B_M1DQ3_1	M0_D3
IO_L46P_FCS_B_M1DQ2_1	M0_D2
IO_L47N_LDC_M1DQ1_1	M0_D1
IO_L47P_FWE_B_M1DQ0_1	M0_D0
IO_L45N_A0_M1LDQSN_1	M0_LDQSN
IO_L45P_A1_M1LDQSN_1	M0_LDQSN
IO_L50N_M1UDQSN_1	M0_UDQSN
IO_L50P_M1UDQSN_1	M0_UDQSN
IO_L42N_GCLK6_TRDY1_M1LDM_1	M0_LDM
IO_L42P_GCLK7_M1UDM_1	M0_UDM

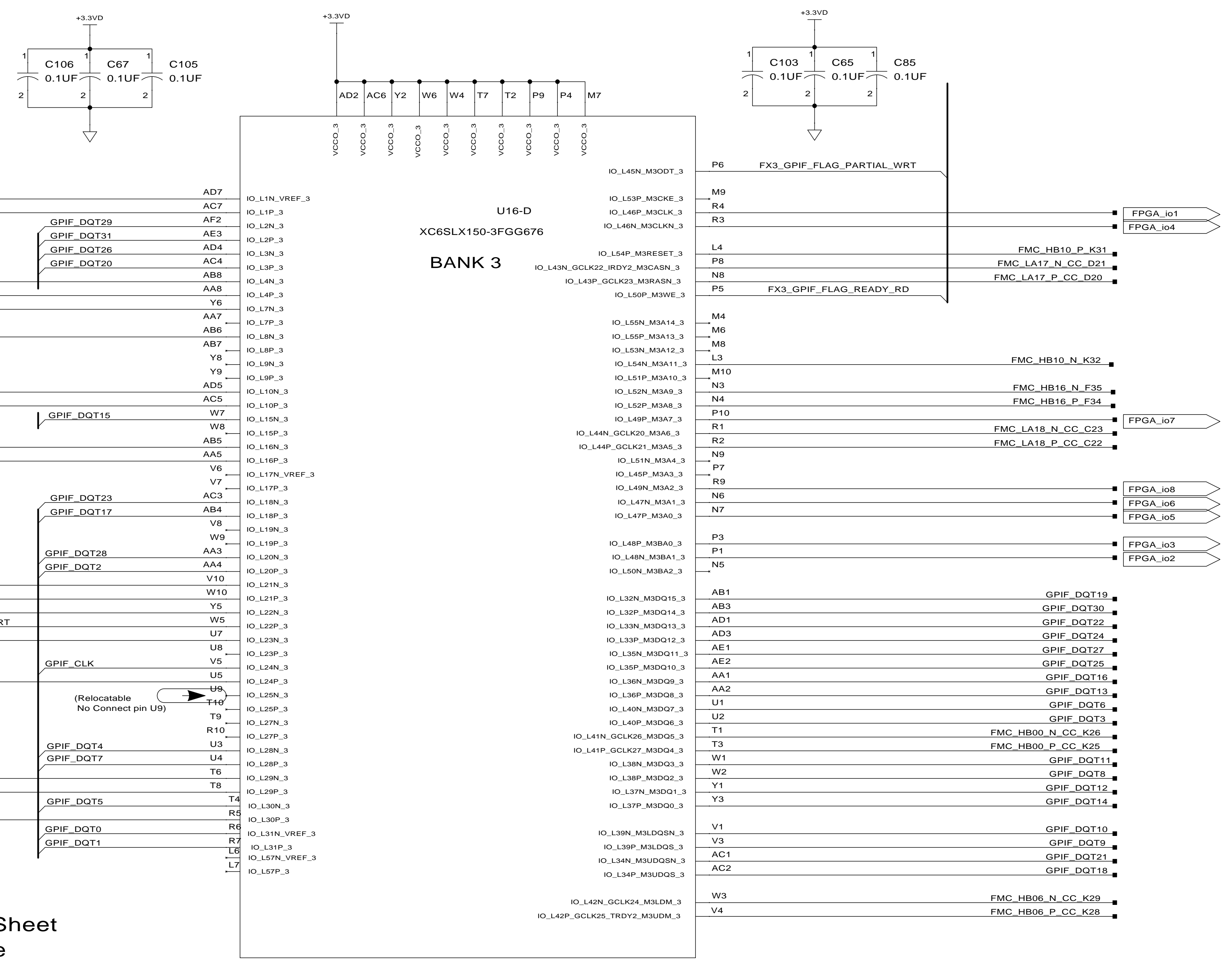
UNLESS OTHERWISE SPECIFIED		MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN		FINISH		DR		NAME	
2 PL DEC TOL ±		✓		QA CHK		G3 FMC FPGA EVALUATION BOARD	
3 PL DEC TOL ±				ENGR		FPGA BANK 1	
ANGULAR TOL ±				ENGR		SIZE D	
SURF ROUGHNESS				ECN NO.		DWG NO. PCB # 30001303 REV 1	
EDGES				REL DATE		ASSEM # 31000039 REV 2	
INSIDE RADII				3/1/2017		SCALE	
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY	PROGRAM CADSTAR		SHEET 7 of 15	
APPLICATION	QUANTITY REQD						



REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL

UNLESS OTHERWISE SPECIFIED				MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN				FINISH		DR		NAME	
2 PL DEC TOL				✓		QA CHK		G3 FMC FPGA	
3 PL DEC TOL						ENGR		EVALUATION BOARD	
ANGULAR TOL						ENGR		FPGA BANK 5	
SURF ROUGHNESS						ECN NO.		SIZE	
EDGES						REL DATE		D	
INSIDE RADII						3/1/2017		DWG NO.	
NEXT ASSY		USED ON		NEXT ASSY		FNAL ASSY		PCB # 30001303 REV 1	
APPLICATION		QUANTITY REQD						ASSEM # 31000039 REV 2	
								SCALE	
								PROGRAM CADSTAR	
								SHEET 8 of 15	

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL



FPGA_io ->
Config Sheet
Test Header

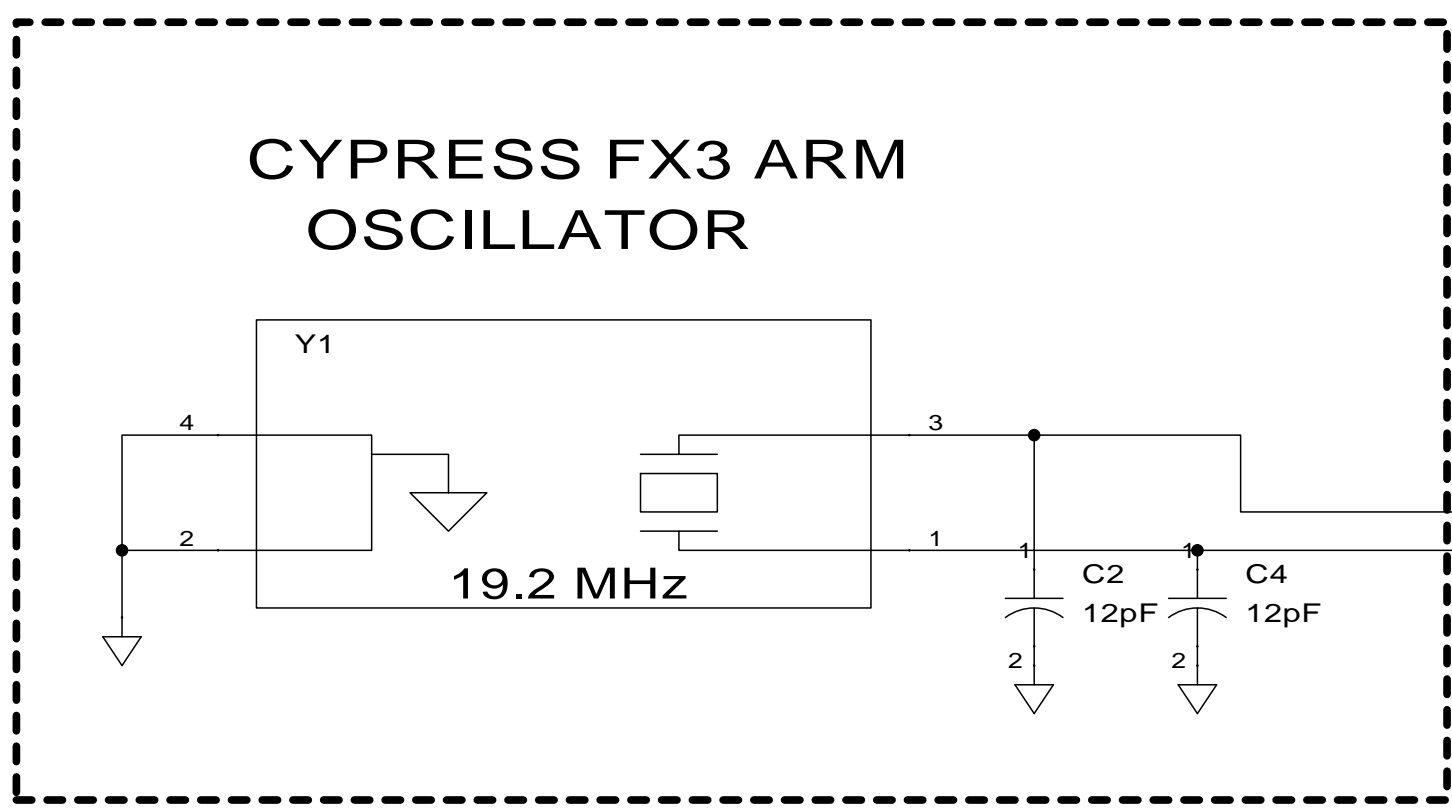
To ->
Config Sheet
Pushbutton

To Cypress USB Sheet
FX3 USB Interface

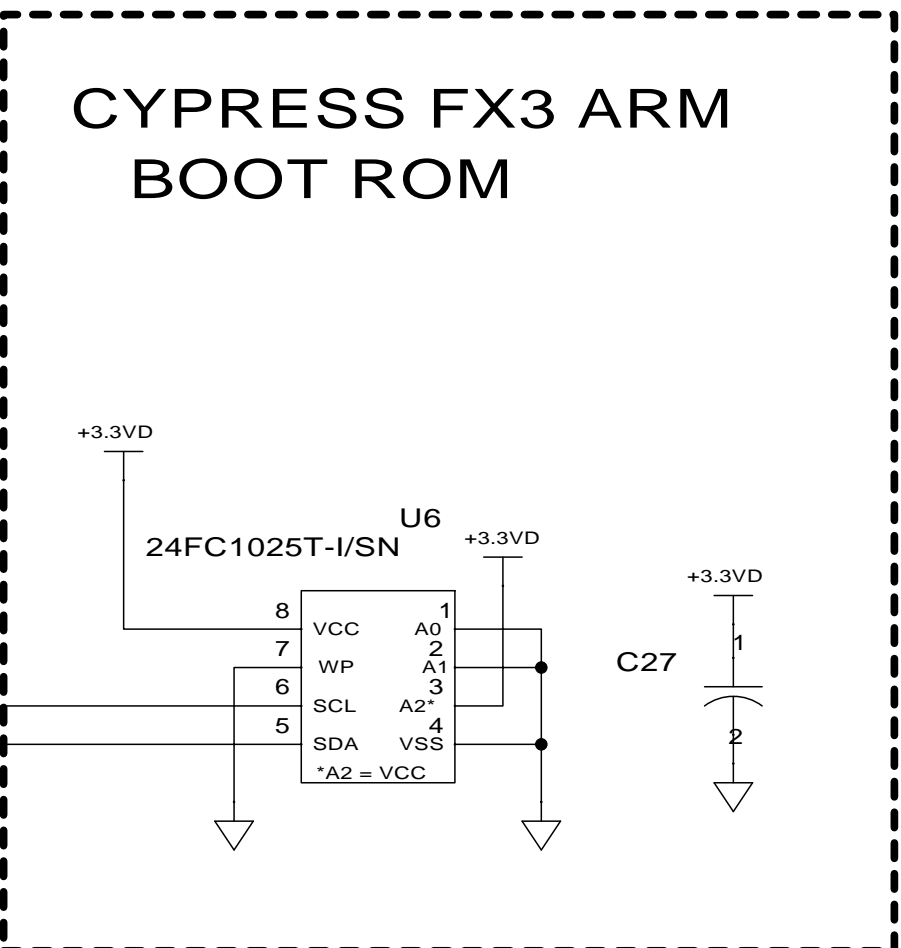
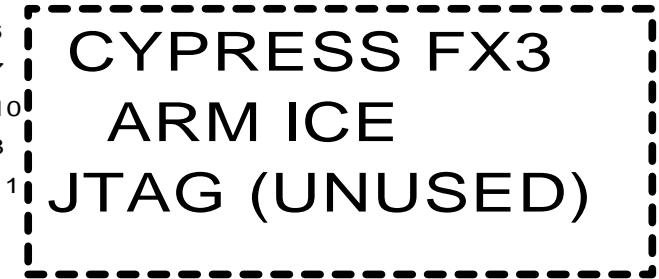
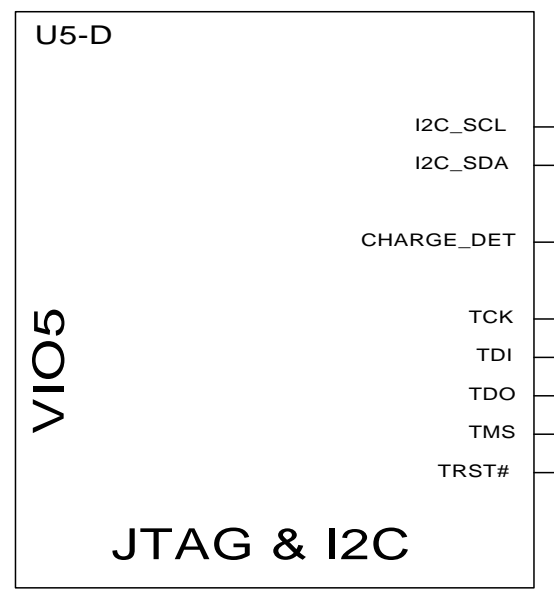
UNLESS OTHERWISE SPECIFIED				MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN				FINISH		DR		NAME	
2 PL DEC TOL ±				✓		QA CHK		G3 FMC FPGA EVALUATION BOARD	
3 PL DEC TOL ±				✓		ENGR		FPGA BANK 3	
ANGULAR TOL ±				✓		ENGR		Jim DiBella	
SURF ROUGHNESS				✓		ECN NO.		SIZE D DWG NO. PCB # 30001303 REV 1	
EDGES				✓		REL DATE		ASSEM # 31000039 REV 2	
INSIDE RADII				✓		3/1/2017		SCALE	
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY	DEVIATIONS FROM INTENDED SHAPE (FLATNESS, ROUNDNESS, SQUARENESS, ETC.) MUST BE WITHIN STATED DIMENSIONAL TOLERANCES.		PROGRAM CADSTAR		SHEET 9 of 15	
APPLICATION	QUANTITY REQD			REL DATE		3/1/2017		SHEET 9 of 15	

8 7 6 5 4 3 2 1

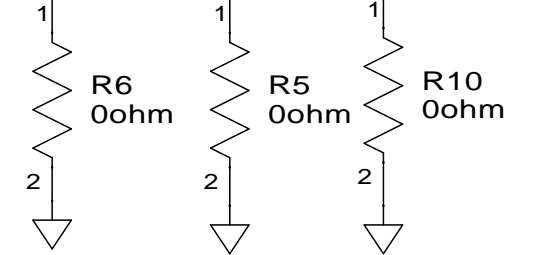
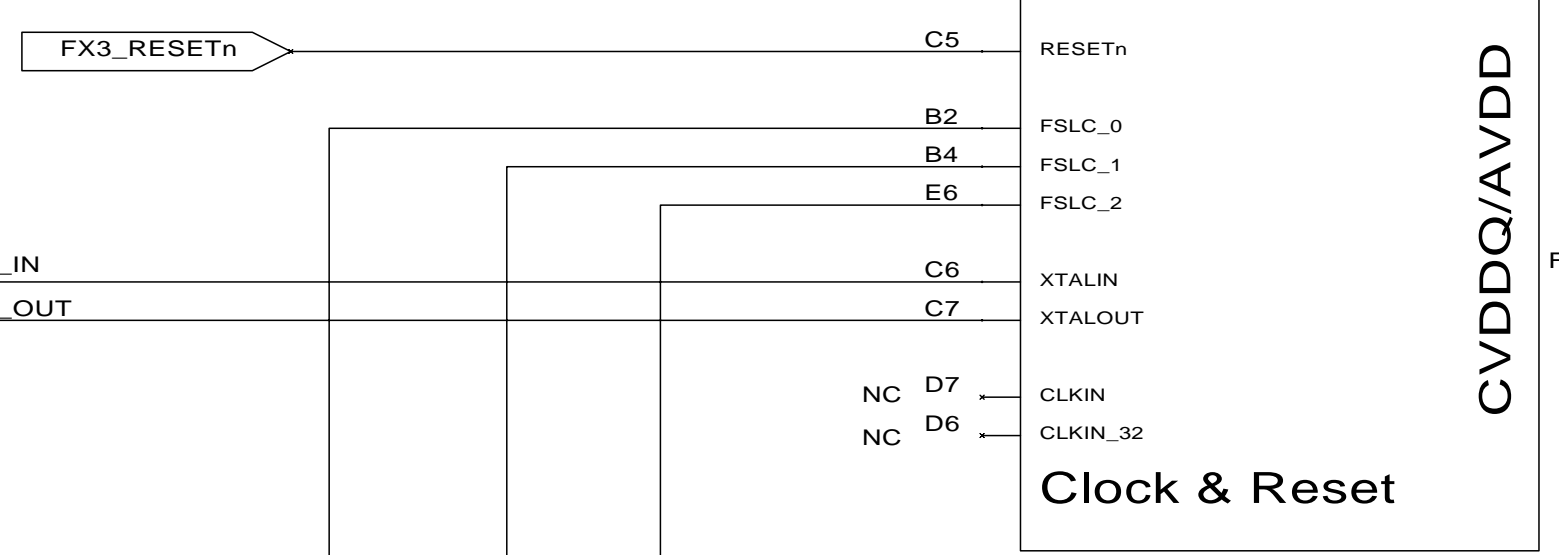
REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL



CYPRESS FX3



From FPGA Bank3 Sheet



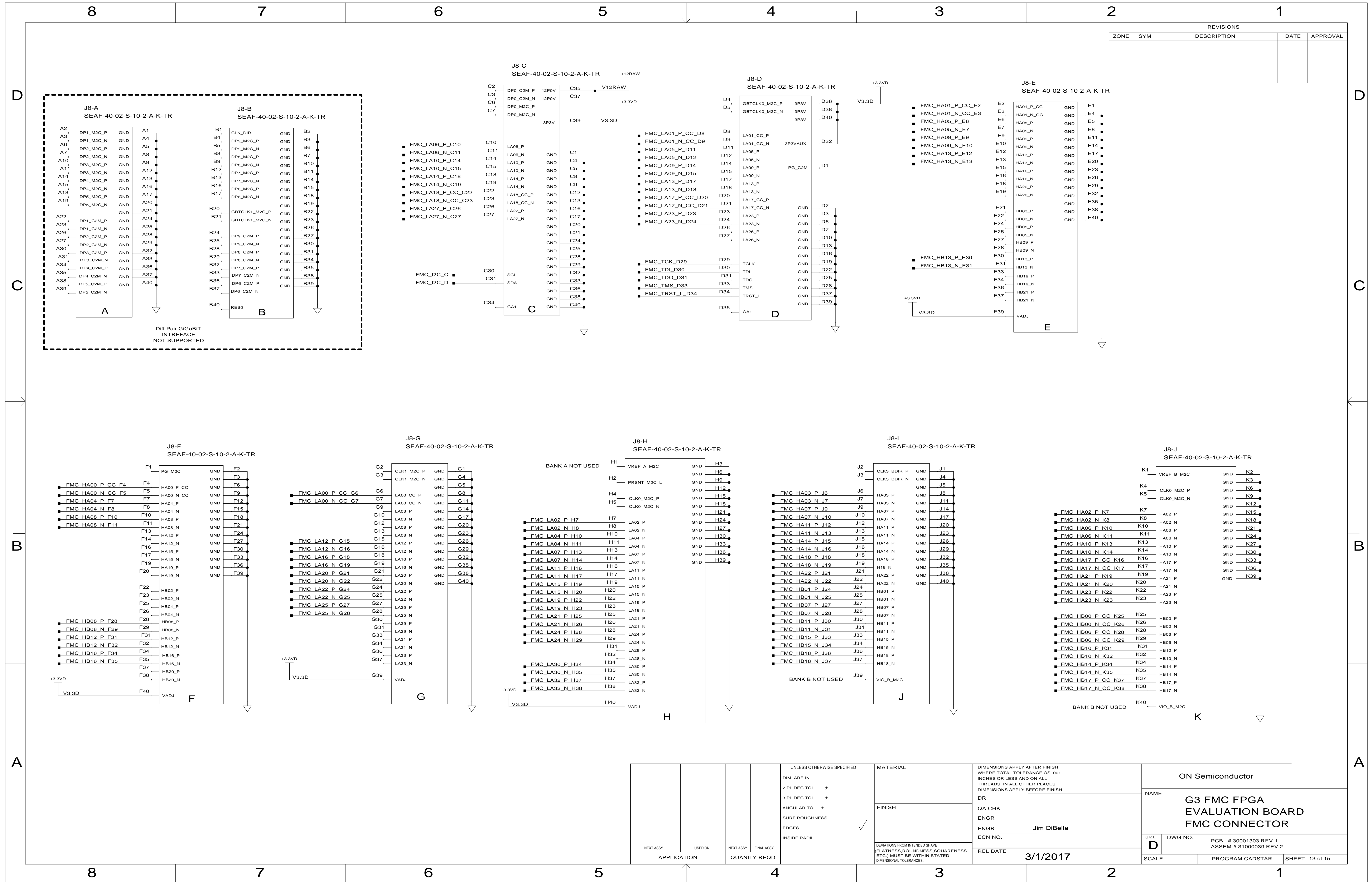
Frequency Selection	Crystal/Clock
FSLC[2] FSLC[1] FSLC[0]	
0 . 0 0	= 19.2-MHz crystal
1 0 0	= 19.2-MHz input CLK
1 0 1	= 26-MHz input CLK
1 1 0	= 38.4-MHz input CLK
1 1 1	= 52-MHz input CLK

D
C
B
A

D
C
B
A

8 7 6 5 4 3 2 1

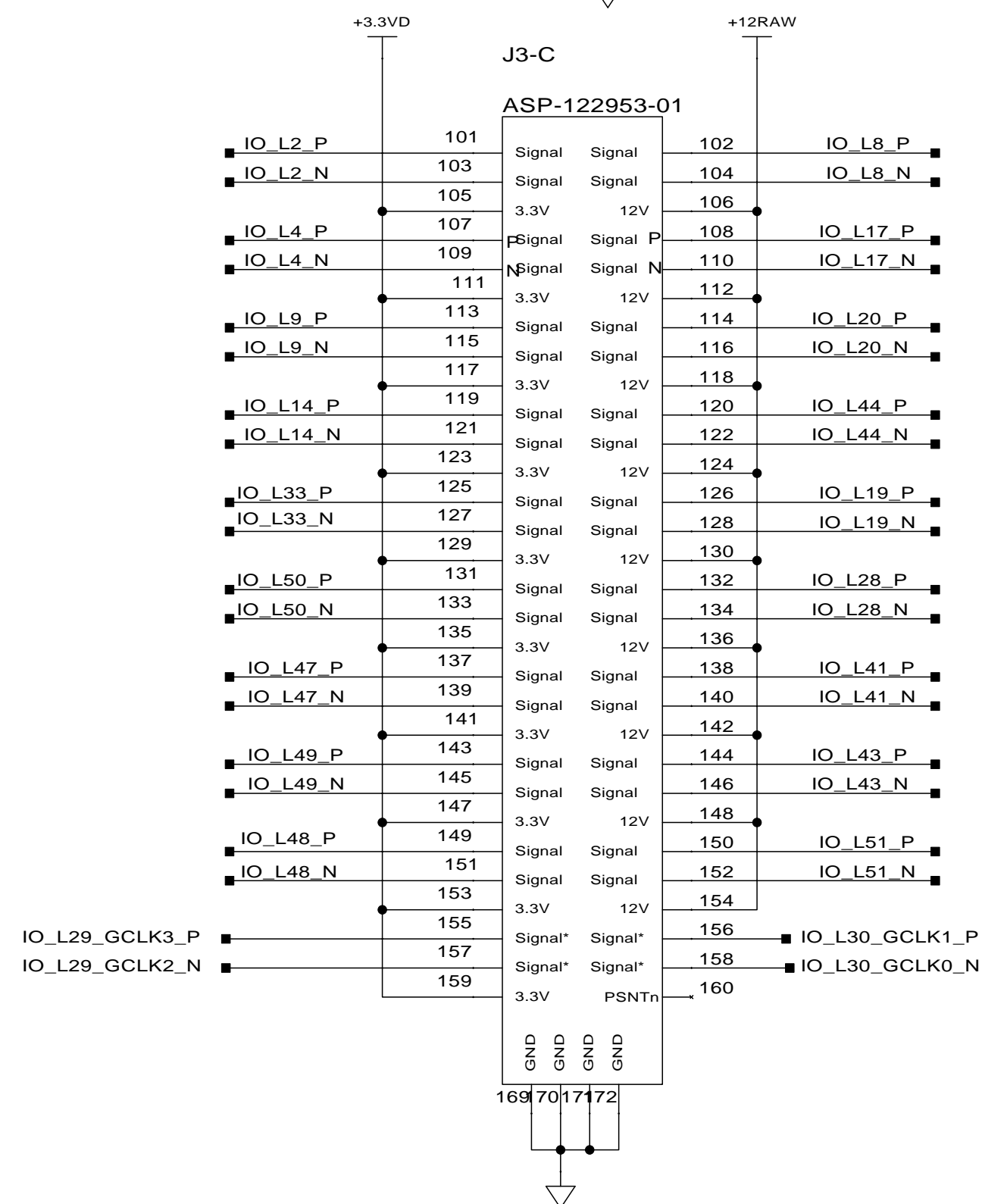
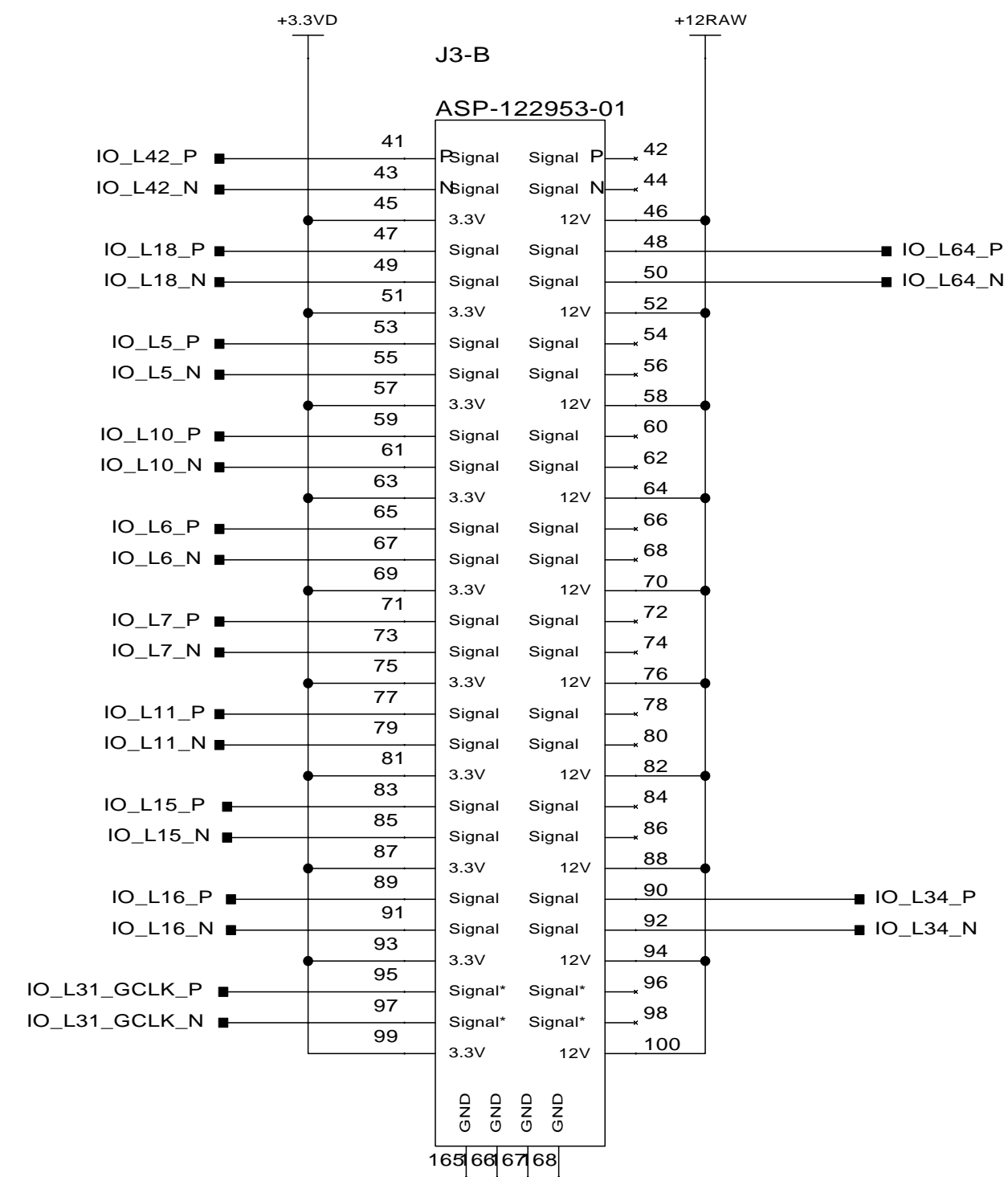
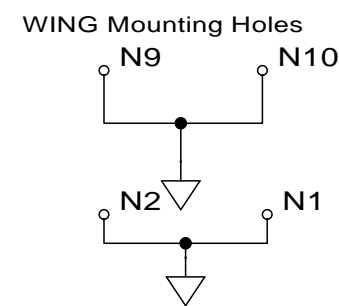
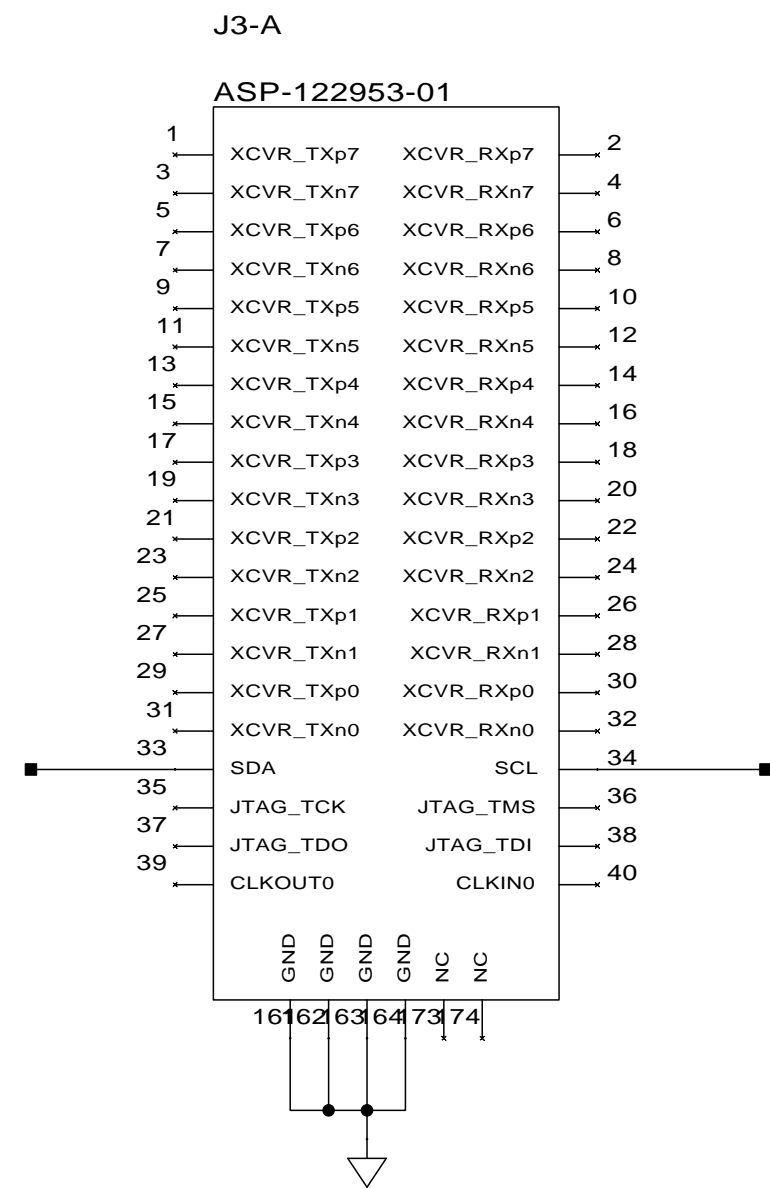
UNLESS OTHERWISE SPECIFIED				MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN				FINISH		DR		NAME	
2 PL DEC TOL ±				DEVIATIONS FROM INTENDED SHAPE (FLATNESS, ROUNDNESS, SQUARENESS, ETC.) MUST BE WITHIN STATED DIMENSIONAL TOLERANCES.		QA CHK		G3 FMC FPGA EVALUATION BOARD	
3 PL DEC TOL ±						ENGR		FX3 CONFIGURATION	
ANGULAR TOL ±						ENGR		Jim DiBella	
SURF ROUGHNESS						ECN NO.		SIZE D DWG NO. PCB # 30001303 REV 1 ASSEM # 31000039 REV 2	
EDGES						REL DATE		3/1/2017	
INSIDE RADII						SCALE		PROGRAM CADSTAR SHEET 11 of 15	
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY						
APPLICATION	QUANTITY REQD								



REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL

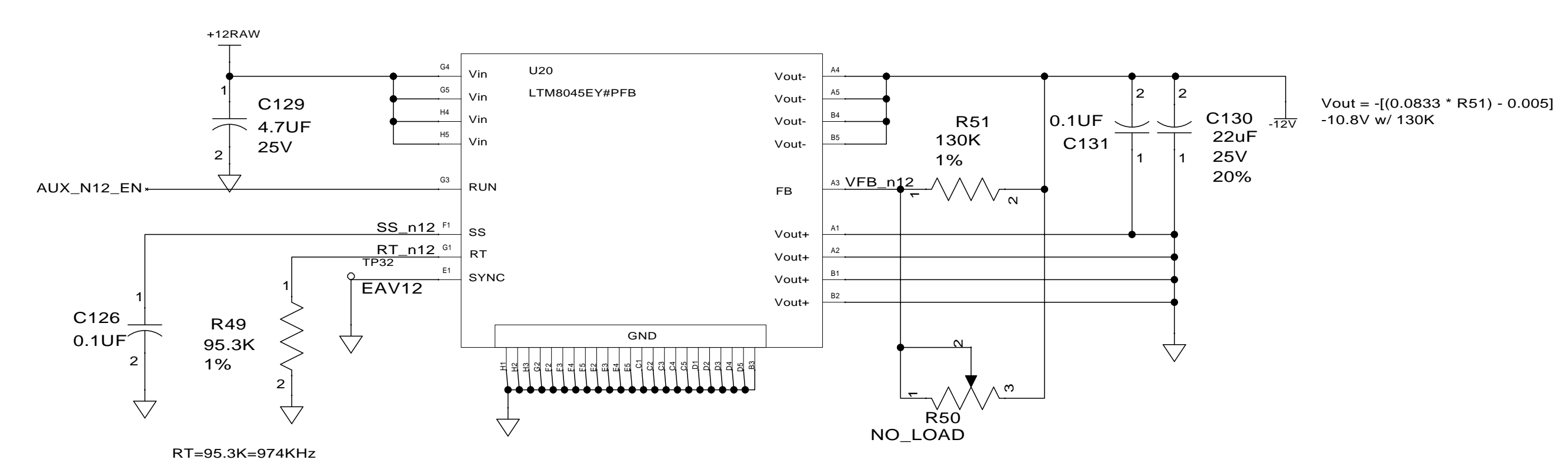
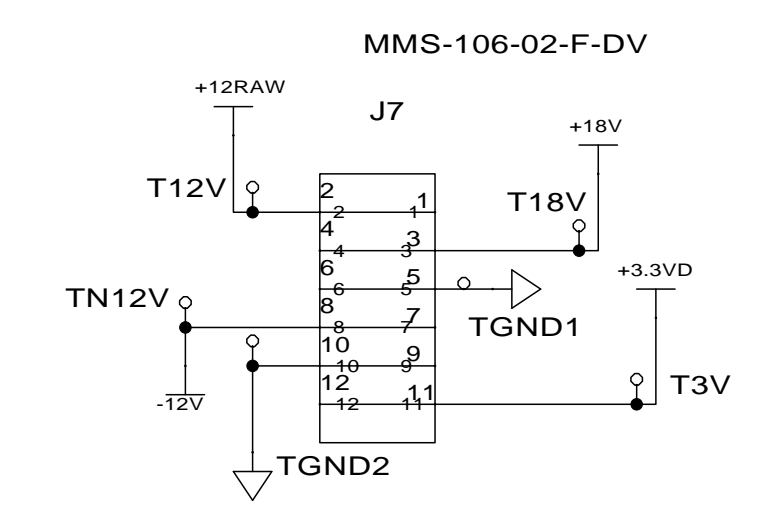
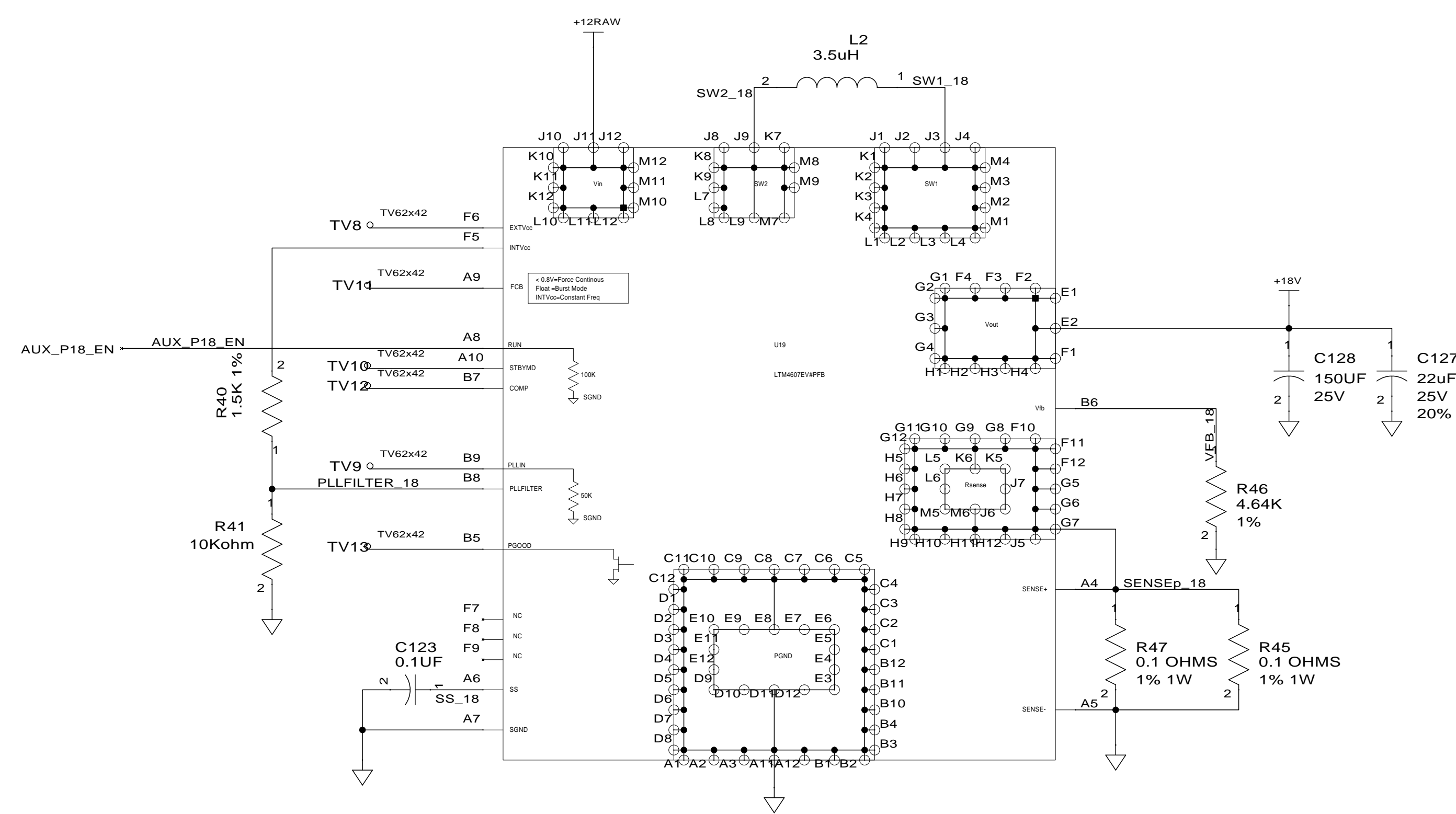
UNLESS OTHERWISE SPECIFIED		MATERIAL	DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE 0S .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.	
DIM. ARE IN		FINISH	NAME	
2 PL DEC TOL +			ON Semiconductor	
3 PL DEC TOL +		DEVIATIONS FROM INTENDED SHAPE (FLATNESS, ROUNDNESS, SQUARENESS ETC.) MUST BE WITHIN STATED DIMENSIONAL TOLERANCES.	G3 FMC FPGA EVALUATION BOARD FMC CONNECTOR	
ANGULAR TOL +			SIZE D DWG NO. PCB # 30001303 REV 1 ASSEM # 31000039 REV 2	
SURF ROUGHNESS			SCALE	
EDGES			PROGRAM CADSTAR SHEET 13 of 15	
INSIDE RADII		REL DATE 3/1/2017		
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY	
APPLICATION		QUANTITY REQD		

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL

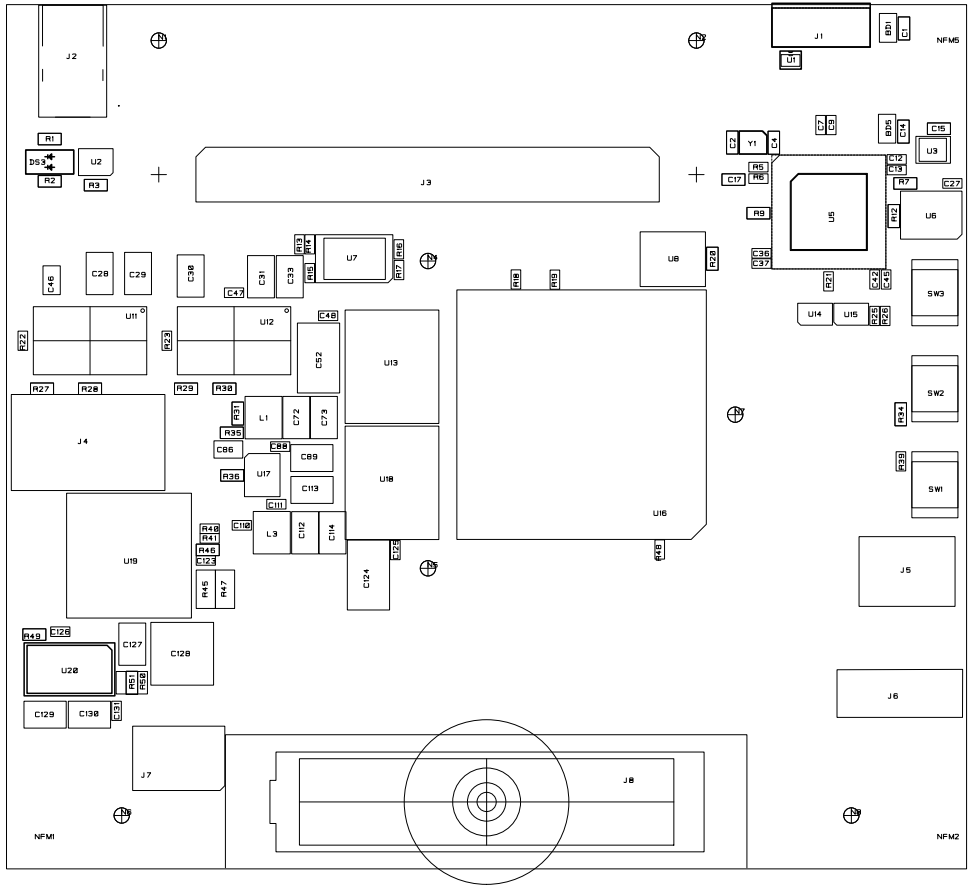


UNLESS OTHERWISE SPECIFIED		MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN		FINISH		DR		NAME	
2 PL DEC TOL ±		✓		QA CHK		G3 FMC FPGA	
3 PL DEC TOL ±		✓		ENGR		EVALUATION BOARD	
ANGULAR TOL ±		✓		ENGR		HSMC CONNECTOR	
SURF ROUGHNESS		✓		ECN NO.		SIZE D DWG NO.	
EDGES		✓		3/1/2017		PCB # 30001303 REV 1	
INSIDE RADII		✓		REL DATE		ASSEM # 31000039 REV 2	
NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY	SCALE		PROGRAM CADSTAR SHEET 14 of 15	

REVISIONS				
ZONE	SYM	DESCRIPTION	DATE	APPROVAL
B-4		Changed R51 to 130K	3/1/17	



UNLESS OTHERWISE SPECIFIED		MATERIAL		DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE 0S .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.		ON Semiconductor	
DIM. ARE IN		FINISH		DR		NAME	
2 PL DEC TOL ±				QA CHK		G3 FMC FPGA	
3 PL DEC TOL ±		✓		ENGR		EVALUATION BOARD	
ANGULAR TOL ±				ENGR		AUXILIARY POWER	
SURF ROUGHNESS		DEVATIONS FROM INTENDED SHAPE FLATNESS, ROUNDNESS, SQUARENESS ETC.) MUST BE WITHIN STATED DIMENSIONAL TOLERANCES.		ECN NO.		SIZE	
EDGES				REL DATE		D	
INSIDE RADII				3/1/2017		DWG NO.	
						PCB # 30001303 REV 1	
NEXT ASSY		USED ON		SCALE		ASSEM # 31000039 REV 2	
APPLICATION		QUANTITY REQD		PROGRAM CADSTAR		SHEET 15 of 15	



Parts List in CSV Format

G3-Capture bare board 30001303
 G3-Capture assembled PCB 31000039

C:\PROJECTS\30001303_G3\3001303.pcb
 Tuesday
 =====

NOTES:

Yellow are no load parts

Rev 2 Changes

R51 and U7

28-Feb

2017 Rev 2

Part Name	DESCRIPTION	MFG Part#	Digikey Part#	MFG	Count
BLM21PG221SN1D	EMI FILTER	FERRITE CHIP 220 OHM 0805	409-1054-1-ND	Murata	2
MPZ2012S601A	EMI FILTER	FERRITE CHIP BEAD 600 OHM SMD	445-2206-1-ND	TDK	4
C.1UF_0603_25V	CAP .1UF 25WVDC +10%	C0603C1004K3RACTU	399-1281-1-ND	Kemet	1
C.1UF_0402	CAP 0.1UF 10% 16V X7R	C0402C104K9RACTU	399-4872-1-ND	Kemet	86
C390PF_0603	CAP 390PF 50WVDC 5%	C0603C391J5GACTU	399-1069-1-ND	KEMET	1
C10PF_0603	CAP 10PF 50WVDC 10%	C0603C100D5GAC	399-7815-1-ND	KEMET	2
C100UF_1210_6V3	CAP Ceramic 100UF 6.3WVDC 20%	C1210C107M9PACTU	399-4697-1-ND	TAIYO YUDEN	10
C47UF_1210_16V20	Ceramic CAP 47UF 16V 20% X5R	C1210C476M4PAC	399-5514-1-ND	KEMET	2
C.01UF_0402	CAP 0.01UF 10% 16V X7R	ECJ-0E01C103K	PCC103BQCT-ND	Panasonic	8
PC220UF10V10	CAP 220UF 10 WVDC 10%	TPSE227K010R0100	478-1799-1-ND	AVX	2
C22UF_1210_25V	CAP 22UF 25WVDC 20% X7R	GRM21BF51C225ZA01	587-2784-1-ND	Taiyo	3
C150UF_25V	CAP Aluminum 150UF 25WVDC 20%	PCV1E151MCL7GS	493-4540-1-ND	Panasonic	1
C4.7UF_1210_25V20	CAP 4.7UF 25WVDC 20%	TMK325B7475KN-T	587-1373-1-ND	TAIYO YUDEN	1
C1UF_0603_16V	CAP 1UF 16WVDC 10%	0603YC105KAT2A	478-5010-1-ND	AVX	2
C10UF_0805_16V_80	CAP 10UF 16WVDC 80%	GRM21BF51C106ZE15L	490-3347-1-ND	Murata	2
C270PF_0603	CAP 270PF 50WVDC 5%	C0603C271K5RAC	399-1072-1-ND	KEMET	2
C2.2UF_0603_10V	CAP 2.2UF 16WVDC 20% Y5V	C1608X5R1A225K080AC	445-5166-1-ND	TDK	3
C12PF_0603_50V	CAP 12PF 50VDC 10%	C0603C120J5GACTU	399-1050-1-ND	KEMET	2
C4.7UF_0805_25V20	CERCAP 4.7UF 25WVDC 20% X5R	GRM21BR61E475MA12L	490-5422-2-ND	Panasonic	1
C2.2UF_0805_16V	CAP 2.2UF 16WVDC 20% Y5V	GRM21BF51C225ZA01	490-1741-1-ND	Panasonic	1
HSMF-C155	LED BI-CLR SURF MT	HSMF-C155	516-1456-1-ND	HP	1
CONN_USB3.0_MICROB_RECPT	USB3 R/A SMT thru-tabs	GSB343K33HRCT	GSB343K33HRCT-ND		1
PJ-002A-SMT	JACK POWER 2.1mm	PJ-002A	CP-002APJCT-ND	CUI	1
ASP-122953-01	CONNECTOR 5mm BOARD TO BOARD HOST	ASP-122953-01	ASP-122953-01	SAMTEC	1
FANCONN	3 POS RT MTA-100 HDR ASS	640453-3	A19340-ND	AMP	1
HDR_100_2X5_SMT	HEADER ASSY 10 POS 2 ROW SMT		15916102 WM3699CT-ND	MOLEX	1
XILINXITAGHEADER	HEADER ASSY 2mm 14 POS 2 ROW SMT	87832-1420	WM18641-ND	MOLEX	1
HDR_MMS_106_02_F_DV	HEADER 6x2 SOCKET SMT	MMS-106-02-F-DV		0 SAMTEC	1
SEAF-40-05.05-S-10-2-A-K-TR	FMC Module Connector	SEAF-40-05.05-S-10-2-A-K-TR	SEAF-40-05.05-S-10-2-A-K-TR	Samtec	1
NRS5020T1RONMGJ	INDUCTOR 1uH 4A	NRS5020T1RONMGJ	587-2403-1-ND	Taiyo	1
CDEP134NP-3R6MC-H	INDUCTOR 3.6uH SMT POWER INDUCTOR	CDEP134NP-3R6MC-H	308-1419-1-ND	SUMIDA	1
NRS5020T2R2NMGJ	INDUCTOR 2.2uH 2.9A	NRS5020T2R2NMGJ	587-2405-1-ND	Taiyo	1
R220_0603	RESISTOR 220 1/16W 5%	CRCW0603220RJNEA	541-220GCT-ND	Vishay/DALE	2
RO_0402	RESISTOR 0 ohm 1/16W 5%	MCR01MRTJ000	RHM0.0JCT-ND	ROHM	14

R6041_0603	RESISTOR 6.04K 1/10W 1%	CRCW06036K04FKEA	1-6.04KHCT-ND	VISHAY/DALE	1
R2211_0603	RESISTOR 2.21K 1/16W 1%	CRCW06032K21FKTA	CRCW06032K21FKTA-ND	DALE	2
R1000_0402	RESISTOR 100 ohm 1/16W 1%	ERJ-2RKF1000X	P100LCT-ND	Panasonic	8
R1002_0402	RESISTOR 10K ohm 1/16W 1%	ERJ-2RKF1002X	P10.0KLCT-ND	Panasonic	3
R1002_0603	RESISTOR 10K 1/16W 1%	CRCW060310K0FKEA	541-10.0KHCT-ND	VISHAY/DALE	1
RNLOAD_0402	NO LOAD RESISTOR	NO LOAD RESISTOR			1
R22R1_0402	RESISTOR 22.1 ohm 1/16W 1%	ERJ-2RKF2210	P22.1LCT-ND	Panasonic	2
R1543_0603	RESISTOR 154K 1/16W 1%	CRCW0603154KFKEA	541-154KHCT-ND	DALE	1
R1183_0603	RESISTOR 118K 1/16W 1%	CRCW0603118KFKEA	541-118KHCT-ND	DALE	1
R9533_0603	RESISTOR 953K 1/16W 1%	CRCW0603953KFKEA	541-953KHCT-ND	DALE	1
R3300_0603	RESISTOR 330 1/16W 5%	CRCW0603330RFKEA	541-330HCT-ND	DALE	1
R1623_0603	RESISTOR 162K 1/16W 1%	CRCW0603162KFKEA	541-162KHCT-ND	DALE	1
R2432_0603	RESISTOR 24.3K 1/16W 1%	CRCW060324K3FKEA	541-24.3KHCT-ND	DALE	1
R1003_0603	RESISTOR 100K 1/16W 1%	CRCW0603100KJNEA	541-100KGCT-ND	DALE	1
R1212_0603	RESISTOR 12.1K 1/10W 1%	CRCW060312K1FKEA	541-12.1KHCT-ND	DALE	1
R3243_0603	RESISTOR 324K 1/16W 1%	CRCW0603324KFKEA	541-324KHCT-ND	Vishay/DALE	1
R6042_0603	RESISTOR 60.4 K 1/16W 1%	CRCW060360K4FKEA	541-6.04KHCT-ND	VISHAY/DALE	1
R471_0402	RESISTOR 4.7K ohm 1/16W 5%	MCR01MRTJ472	RHM4.7KJCT-ND	ROHM	1
R3921_0402	RES 3.92K OHM 1/10W 1% 0402 SMD	ERJ-2RKF3921X	P3.92KLDKR-ND	Panasonic	1
R1501_0402	RESISTOR 1.5K ohm 1/16W 1%	RMCF0402FT1K5	RMCF0402FT1K50TR-ND	Panasonic	1
R102_0402	RESISTOR 10K ohm 1/16W 5%	MCR01M2PJ103	RHM10KJxx-ND	ROHM	1
R3922_0603	RESISTOR 39.2K 1/10W 1%	CRCW060339K2FKEA	541-39.2KHCT-ND	DALE	1
R0R1_1206_1W_1%	RESISTOR 0.1 OHMS 1W 1%	ERJ-8BWFR100V	P.10AUCT-ND	Panasonic	2
R4641_0603	RESISTOR 4.64K 1/16W 1%	CRCW06034641FT		DALE	1
R9532_0603	RESISTOR 95.3K 1/16W 1%	CRCW060395K3FKEA	541-95.3KHCT-ND	DALE	2
R1303_0603	RESISTOR 130K 1/16W 1%	CRCW0603130KFKEA	541-130KHCT-ND	DALE	2
NO_LOAD POT	NO_LOAD TRIMMER POT	XXXXXX		RHOM	1
R7871_0402	RES 7.87K OHM 1/10W 1% 0402 SMD	ERJ-2RKF7871X	P7.87KLCT-ND	Panasonic	1
R2000_0603	RESISTOR 200 1/10W 1%	CRCW0603200RFKEA	541-200HCT-ND	VISHAY/DALE	1
KT11B1JM	SWITCH MOMENTARY	KT11B1JM34LFS	CKN1835CT-ND	C&K	3
SP3010-04UTG	TVS ARRAY ESD 4CH .45PF 8KV UDFN	SP3010-04UTG	F3507CT-ND	LittleFuse	1
EXB2HV220JV	RESISTOR NET 22 OHM x8	EXB2HV220JV	Y1220TR-ND	PANASONIC	4
LTM8025	Step Down uModule Regulator	LTM8025EV#PBF	LTM8025EV#PBF-ND	LINEAR	2
MT47H128M16RT-25EC	2G bit x 16 DDR2	MT47H128M16RT-25E:C	557-1535-ND	Micron	2
XC6SLX150-3FGG676	IC ARRAY LOGIC FPGA	XC6SLX150-3FGG676		XILINX	1
LTC3634	15V 3A monolithic Step-Down Regulator for DDR Power	LTC3634EUFD#TRPBF	LTC3634EUFD#TRPBF	LINEAR	1
LTM4607	Buck-Boost DC/DC 24Vout	LTM4607EV#PBF	LTM4607EV#PBF-ND	LINEAR	1
SN74LVC2G04	Dual TINY INVERTER	SN74LVC2G04DBVR	296-13261-1-ND	TI	1
LTM8045	Step Down uModule Regulator	LTM8045EY#PBF	LTM8045EY#PBF-ND	LINEAR	1
NCP361SNT1G	IC USB POS OVP/OCV 5TSOP	NCP361SNT1G	NCP361SNT1GOSCT-ND		0 1
CAT6243-ADJMT5T3	Adjustable 1A CMOS Low Dropout Regulator	CAT6243-ADJMT5T3	CAT6243-ADJMT5T3-ND	ON Semi	1
CYUSB3014-BZX	EZ-USB FX3 SuperSpeed USB Controller	CYUSB3014-BZX	428-3182-ND	Cypress	1
24FC1025_SOIC	IC EEPROM 128KBYTE 1MHZ 8SOIC	24FC1025T-I/SN	24FC1025T-I/SNCT-ND	Microchip	1
N25Q128A13ESE40F	Serial Configuration PROM	N25Q128A13ESE40F	N25Q128A13ESE40G-ND	Micron	1
CB3LV-3C-50.0000	CRYSTAL OSCILLATOR 50MHz 50ppm	CB3LV-3C-50M0000	CTX283LVCT-ND	CTS	1
NX2520SA-19.200MHZ	30ppm 60ohm 200uW 13pF	NX2520SA-19.20000MHZ-NBG1MHz	644-1162-1-ND	NDK	1

PCB_REF_NAME

BD1 BD5

BD2 BD3 BD4 BD6

C1

C10 C100 C101 C102 C103 C104 C105 C106 C107 C11 C110
C111 C115 C116 C117 C118 C119 C120 C121 C122 C123 C125
C126 C13 C131 C19 C20 C21 C22 C24 C26 C27 C35 C37 C38
C41 C44 C45 C47 C48 C49 C50 C51 C53 C54 C55 C56 C57 C58
C59 C60 C61 C62 C63 C64 C65 C66 C67 C68 C69 C7 C70 C74
C75 C76 C77 C78 C79 C8 C80 C81 C82 C83 C84 C85 C88 C9
C90 C91 C92 C93 C94 C95 C96 C97 C98 C99

C108

C109 C71

C112 C114 C28 C29 C31 C32 C33 C34 C72 C73

C113 C89

C12 C23 C25 C36 C39 C40 C42 C43

C124 C52

C127 C130 C30

C128

C129

C14 C15

C16 C3

C17 C87

C18 C5 C6

C2 C4

C46

C86

DS3

J1

J2

J3

J4

J5

J6

J7

J8

L1

L2

L3

R1 R2

R10 R18 R19 R22 R23 R48 R5 R52 R53 R54 R55 R56 R57 R6

R11
R12 R7
R13 R14 R24 R32 R33 R38 R43 R44
R15 R16 R17

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R42

R45 R47

R46

R49

R51

R50

R8

R9

SW1 SW2 SW3

U1

U10 U14 U15 U9

U11 U12

U13 U18

U16

U17

U19

U2

U20

U3

U4

U5

U6

U7

U8

Y1