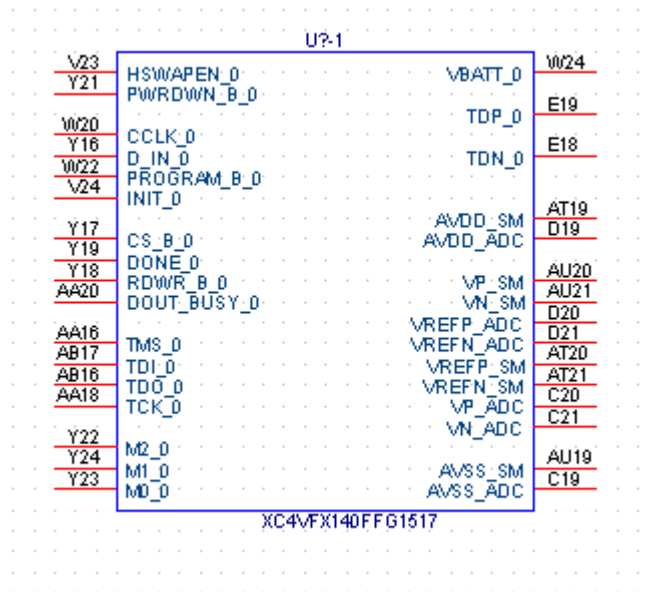


Schematic Symbol for XC4VFX100FFG1517

The Schematic symbol consists of 28 heterogeneous parts that are listed below:

The parts are numbered from 1 to 30, with the parts 16 and 21 not being used. This approach was used to maintain the symbol compatibility with the larger FPGA using the same package (XC4VFX140FFG1517).

1. Programming Interface



2. I/O Banks 1 and 2

U?-2			
L24	IO_L1P_D31_LC_1	IO_L24N_CC_LC_2	AL18
K23	IO_L1N_D30_LC_1	IO_L24P_CC_LC_2	AM18
D17	IO_L2P_D29_LC_1	IO_L23N_VRP_LC_2	AJ22
E17	IO_L2N_D28_LC_1	IO_L23P_VRN_LC_2	AK23
K24	IO_L3P_D27_LC_1	IO_L22N_LC_2	AN17
J24	IO_L3N_D26_LC_1	IO_L22P_LC_2	AN18
L16	IO_L4P_D25_LC_1	IO_L21N_LC_2	AR23
M16	IO_L4N_D24_VREF_LC_1	IO_L21P_LC_2	AN23
H24	IO_L5P_D23_LC_1	IO_L20N_VREF_LC_2	AG16
H23	IO_L5N_D22_LC_1	IO_L20P_LC_2	AG17
J16	IO_L6P_D21_LC_1	IO_L19N_LC_2	AU23
K16	IO_L6N_D20_LC_1	IO_L19P_LC_2	AT23
M25	IO_L7P_D19_LC_1	IO_L18N_LC_2	AJ17
N24	IO_L7N_D18_LC_1	IO_L18P_LC_2	AK17
G15	IO_L8P_D17_CC_LC_1	IO_L17N_LC_2	AH23
H15	IO_L8N_D16_CC_LC_1	IO_L17P_LC_2	AH24
M21	IO_L9P_GC_LC_1	IO_L16N_GC_LC_2	AH19
N20	IO_L9N_GC_LC_1	IO_L16P_GC_LC_2	AG20
N19	IO_L10P_GC_LC_1	IO_L15N_GC_LC_2	AF21
P19	IO_L10N_GC_LC_1	IO_L15P_GC_LC_2	AG22
F21	IO_L11P_GC_LC_1	IO_L14N_GC_LC_2	AN19
E21	IO_L11N_GC_LC_1	IO_L14P_GC_LC_2	AP19
R18	IO_L12P_GC_LC_1	IO_L13N_GC_LC_2	AG21
P17	IO_L12N_GC_VREF_LC_1	IO_L13P_GC_LC_2	AH22
G22	IO_L13P_GC_LC_1	IO_L12N_GC_VREF_LC_2	AR18
G21	IO_L13N_GC_LC_1	IO_L12P_GC_LC_2	AR19
N18	IO_L14P_GC_LC_1	IO_L11N_GC_LC_2	AR21
M17	IO_L14N_GC_LC_1	IO_L11P_GC_LC_2	AR22
J22	IO_L15P_GC_LC_1	IO_L10N_GC_LC_2	AH17
H22	IO_L15N_GC_LC_1	IO_L10P_GC_LC_2	AG18
L18	IO_L16P_GC_CC_LC_1	IO_L9N_GC_CC_LC_2	AE22
M18	IO_L16N_GC_CC_LC_1	IO_L9P_GC_CC_LC_2	AF23
N23	IO_L17P_CC_LC_1	IO_L8N_D0_LC_2	AM16
N22	IO_L17N_CC_LC_1	IO_L8P_D1_LC_2	AM17
K18	IO_L18P_VRN_LC_1	IO_L7N_D2_LC_2	AK24
K17	IO_L18N_VRP_LC_1	IO_L7P_D3_LC_2	AJ24
M23	IO_L19P_LC_1	IO_L6N_D4_LC_2	AP17
L23	IO_L19N_LC_1	IO_L6P_D5_LC_2	AR17
C18	IO_L20P_LC_1	IO_L5N_D6_LC_2	AL23
C17	IO_L20N_VREF_LC_1	IO_L5P_D7_LC_2	AL24
G23	IO_L21P_LC_1	IO_L4N_D8_VREF_LC_2	AH15
F23	IO_L21N_LC_1	IO_L4P_D9_LC_2	AJ16
H17	IO_L22P_LC_1	IO_L3N_D10_LC_2	AM23
J17	IO_L22N_LC_1	IO_L3P_D11_LC_2	AN24
E23	IO_L23P_LC_1	IO_L2N_D12_LC_2	AK16
E22	IO_L23N_LC_1	IO_L2P_D13_LC_2	AL16
G17	IO_L24P_LC_1	IO_L1N_D14_CC_LC_2	AN25
G16	IO_L24N_LC_1	IO_L1P_D15_CC_LC_2	AM25

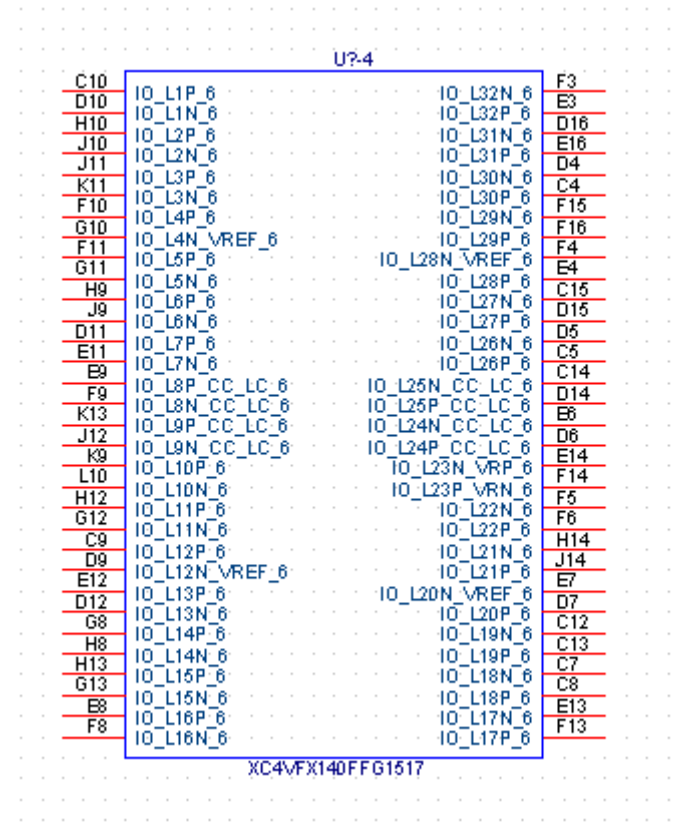
XC4VFX140FFG1517

3. I/O Banks 3, 4 and 5

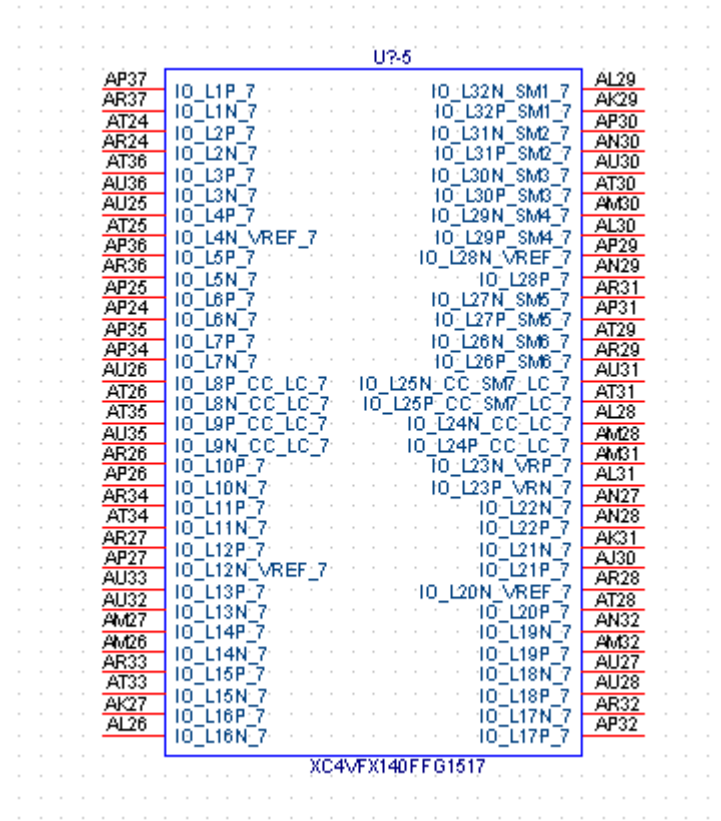
U2-3			
J20	IO_L1P_GC_CC_LC_3	IO_L32N_5	C23
J19	IO_L1N_GC_CC_LC_3	IO_L32P_5	C24
K19	IO_L2P_GC_VRN_LC_3	IO_L31N_5	C32
L19	IO_L2N_GC_VRP_LC_3	IO_L31P_5	C33
H20	IO_L3P_GC_LC_3	IO_L30N_5	E24
H19	IO_L3N_GC_LC_3	IO_L30P_5	D24
G20	IO_L4P_GC_LC_3	IO_L29N_5	E33
F20	IO_L4N_GC_VREF_LC_3	IO_L29P_5	F33
L21	IO_L5P_GC_LC_3	IO_L28N_VREF_5	M26
L20	IO_L5N_GC_LC_3	IO_L28P_5	L26
F19	IO_L6P_GC_LC_3	IO_L27N_5	G32
F18	IO_L6N_GC_LC_3	IO_L27P_5	G33
K21	IO_L7P_GC_LC_3	IO_L26N_5	M27
J21	IO_L7N_GC_LC_3	IO_L26P_5	M28
G18	IO_L8P_GC_LC_3	IO_L25N_CC_LC_5	D32
H18	IO_L8N_GC_LC_3	IO_L25P_CC_LC_5	E32
		IO_L24N_CC_LC_5	D25
		IO_L24P_CC_LC_5	C25
AP22	IO_L1P_GC_LC_4	IO_L23N_VRP_5	J31
AP21	IO_L1N_GC_LC_4	IO_L23P_VRN_5	K31
AN20	IO_L2P_GC_LC_4	IO_L22N_5	F24
AP20	IO_L2N_GC_LC_4	IO_L22P_5	F25
AM22	IO_L3P_GC_LC_4	IO_L21N_5	L30
AN22	IO_L3N_GC_LC_4	IO_L21P_5	L31
AL20	IO_L4P_GC_LC_4	IO_L20N_VREF_5	H25
AL19	IO_L4N_GC_VREF_LC_4	IO_L20P_5	G25
AK21	IO_L5P_GC_LC_4	IO_L19N_5	D31
AL21	IO_L5N_GC_LC_4	IO_L19P_5	E31
AK19	IO_L6P_GC_LC_4	IO_L18N_5	E26
AJ19	IO_L6N_GC_LC_4	IO_L18P_5	D26
AJ21	IO_L7P_GC_VRN_LC_4	IO_L17N_5	F31
AJ20	IO_L7N_GC_VRP_LC_4	IO_L17P_5	G31
AM21	IO_L8P_GC_CC_LC_4	IO_L16N_5	G26
AM20	IO_L8N_GC_CC_LC_4	IO_L16P_5	F26
		IO_L15N_5	C30
C28	IO_L1P_ADC7_5	IO_L15P_5	D30
C27	IO_L1N_ADC7_5	IO_L14N_5	K26
K28	IO_L2P_ADC6_5	IO_L14P_5	J26
L28	IO_L2N_ADC6_5	IO_L13N_5	F30
K29	IO_L3P_ADC5_5	IO_L13P_5	G30
L29	IO_L3N_ADC5_5	IO_L12N_VREF_5	E27
G28	IO_L4P_5	IO_L12P_5	D27
H28	IO_L4N_VREF_5	IO_L11N_5	H30
J29	IO_L5P_ADC4_5	IO_L11P_5	J30
H29	IO_L5N_ADC4_5	IO_L10N_5	H27
E28	IO_L6P_ADC3_5	IO_L10P_5	G27
F28	IO_L6N_ADC3_5	IO_L9N_CC_LC_5	C29
E29	IO_L7P_ADC2_5	IO_L9P_CC_LC_5	D29
F29	IO_L7N_ADC2_5		K27
J27	IO_L8P_CC_ADC1_LC_5	IO_L8N_CC_ADC1_LC_5	

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4. I/O Bank 6



5. I/O Bank 7



6. I/O Bank 8

U?-6			
AH14	IO_L1P_8	IO_L32N_8	AJ11
AH13	IO_L1N_8	IO_L32P_8	AK11
AR7	IO_L2P_8	IO_L31N_8	AU12
AP7	IO_L2N_8	IO_L31P_8	AU13
AT18	IO_L3P_8	IO_L30N_8	AR12
AU17	IO_L3N_8	IO_L30P_8	AP12
AU8	IO_L4P_8	IO_L29N_8	AT13
AU7	IO_L4N_VREF_8	IO_L29P_8	AT14
AT16	IO_L5P_8	IO_L28N_VREF_8	AM11
AU16	IO_L5N_8	IO_L28P_8	AL11
AT8	IO_L6P_8	IO_L27N_8	AR13
AR8	IO_L6N_8	IO_L27P_8	AR14
AP16	IO_L7P_8	IO_L26N_8	AR11
AR16	IO_L7N_8	IO_L26P_8	AP11
AN8	IO_L8P_CC_LC_8	IO_L25N_CC_LC_8	AM13
AN7	IO_L8N_CC_LC_8	IO_L25P_CC_LC_8	AL13
AT15	IO_L9P_CC_LC_8	IO_L24N_CC_LC_8	AU11
AU15	IO_L9N_CC_LC_8	IO_L24P_CC_LC_8	AT11
AT9	IO_L10P_8	IO_L23N_VRP_8	AN12
AR9	IO_L10N_8	IO_L23P_VRN_8	AN13
AN15	IO_L11P_8	IO_L22N_8	AL10
AP15	IO_L11N_8	IO_L22P_8	AM10
AP9	IO_L12P_8	IO_L21N_8	AH12
AN9	IO_L12N_VREF_8	IO_L21P_8	AJ12
AM15	IO_L13P_8	IO_L20P_8	AJ10
AL14	IO_L13N_8	IO_L20N_VREF_8	AJ9
AL9	IO_L14P_8	IO_L19N_8	AK12
AK9	IO_L14N_8	IO_L19P_8	AK13
AJ14	IO_L15P_8	IO_L18N_8	AN10
AK14	IO_L15N_8	IO_L18P_8	AP10
AU10	IO_L16P_8	IO_L17N_8	AP14
AT10	IO_L16N_8	IO_L17P_8	AN14

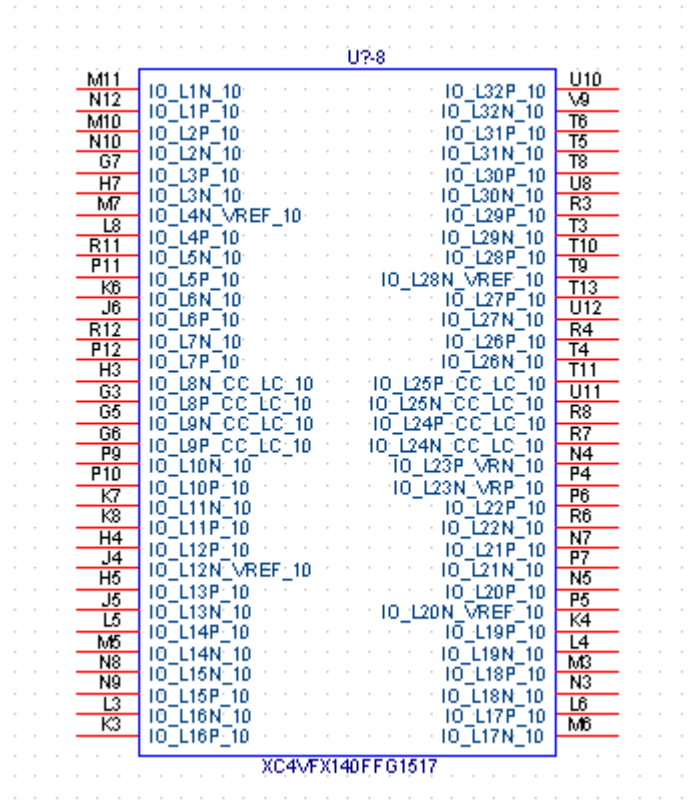
XC4VFX140FFG1517

7. I/O Bank 9

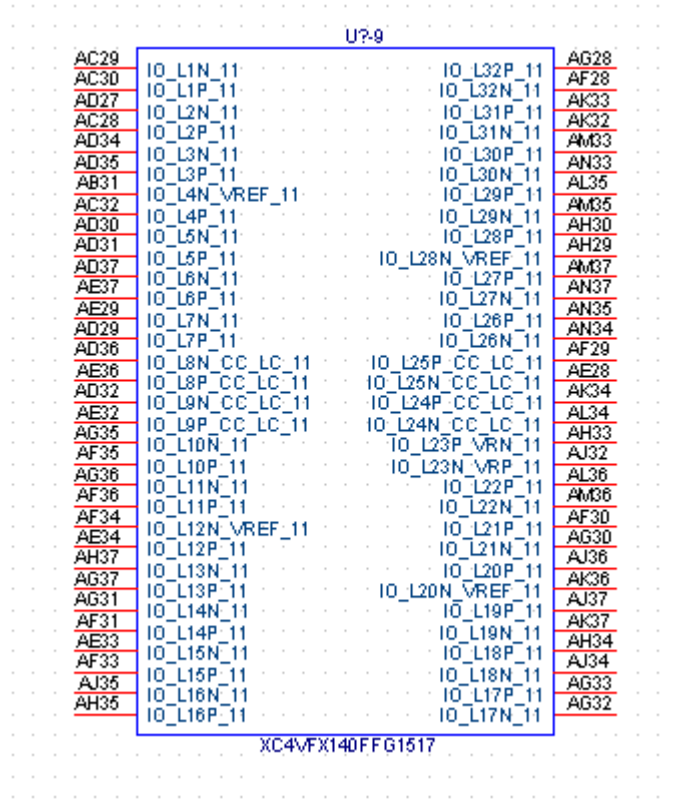
U?-7		
K32	IO_L1P_9	IO_L32N_9
J32	IO_L1N_9	IO_L32P_9
D34	IO_L2P_9	IO_L31N_9
C34	IO_L2N_9	IO_L31P_9
G35	IO_L3P_9	IO_L30N_9
F35	IO_L3N_9	IO_L30P_9
D35	IO_L4P_9	IO_L29N_9
C35	IO_L4N_VREF_9	IO_L29P_9
E37	IO_L5P_9	IO_L28N_VREF_9
D37	IO_L5N_9	IO_L28P_9
F34	IO_L6P_9	IO_L27N_9
E34	IO_L6N_9	IO_L27P_9
G36	IO_L7P_9	IO_L26N_9
F36	IO_L7N_9	IO_L26P_9
H33	IO_L8P_CC_LC_9	IO_L25N_CC_LC_9
H32	IO_L8N_CC_LC_9	IO_L25P_CC_LC_9
J35	IO_L9P_CC_LC_9	IO_L24N_CC_LC_9
H35	IO_L9N_CC_LC_9	IO_L24P_CC_LC_9
E36	IO_L10P_9	IO_L23N_VRP_9
D36	IO_L10N_9	IO_L23P_VRN_9
L34	IO_L11P_9	IO_L22N_9
K34	IO_L11N_9	IO_L22P_9
J34	IO_L12P_9	IO_L21N_9
H34	IO_L12N_VREF_9	IO_L21P_9
J37	IO_L13P_9	IO_L20N_VREF_9
J36	IO_L13N_9	IO_L20P_9
N30	IO_L14P_9	IO_L19N_9
M31	IO_L14N_9	IO_L19P_9
N32	IO_L15P_9	IO_L18N_9
M32	IO_L15N_9	IO_L18P_9
L33	IO_L16P_9	IO_L17N_9
K33	IO_L16N_9	IO_L17P_9
V27		V27
W27		W27
V29		V29
V30		V30
V25		V25
W26		W26
U28		U28
V28		V28
U26		U26
U27		U27
U30		U30
U31		U31
U32		U32
U33		U33
T29		T29
T30		T30
N34		N34
N35		N35
T33		T33
R33		R33
L35		L35
M35		M35
T31		T31
R31		R31
P30		P30
P31		P31
P32		P32
R32		R32
G37		G37
H37		H37
M33		M33
N33		N33

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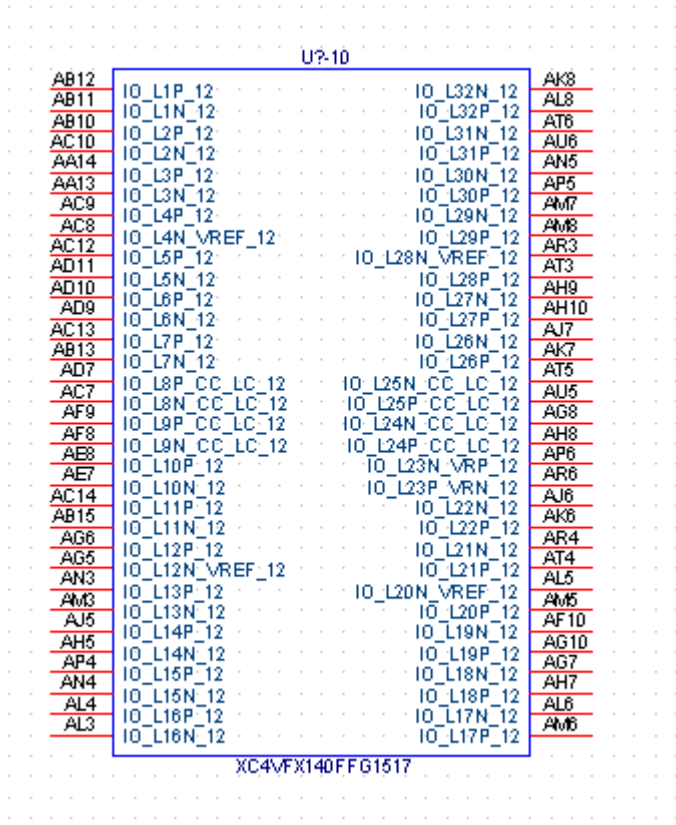
8. I/O Bank 10



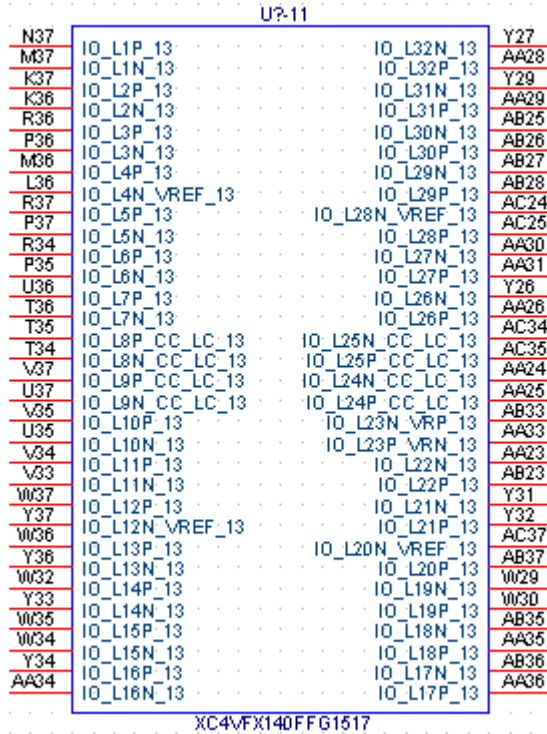
9. I/O Bank 11



10. I/O Bank 12



11. I/O Bank 13

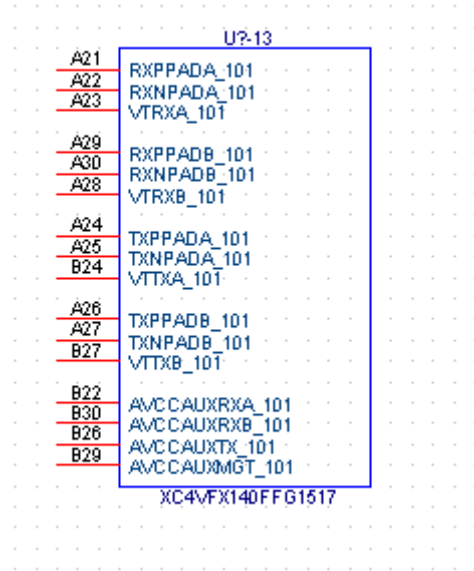


12. I/O Bank 14

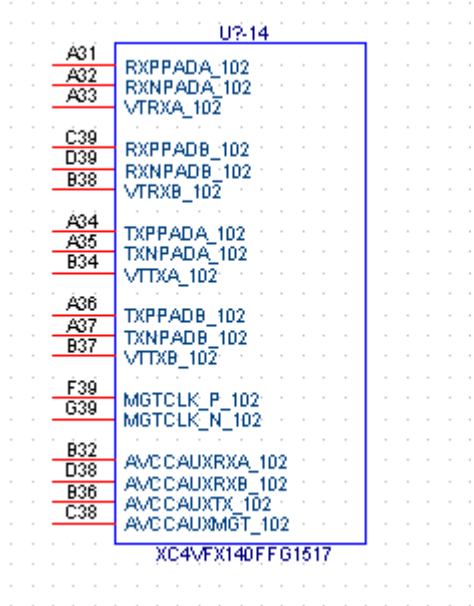
U?-12			
U6	IO_L1P_14	IO_L32N_14	AF5
U5	IO_L1N_14	IO_L32P_14	AE6
V3	IO_L2P_14	IO_L31N_14	AA10
U3	IO_L2N_14	IO_L31P_14	AA11
U15	IO_L3P_14	IO_L30N_14	AG3
V14	IO_L3N_14	IO_L30P_14	AH3
W4	IO_L4P_14	IO_L29N_14	AK3
V4	IO_L4N_VREF_14	IO_L29P_14	AK4
Y6	IO_L5P_14	IO_L28N_VREF_14	AA8
W6	IO_L5N_14	IO_L28P_14	AA9
W5	IO_L6P_14	IO_L27N_14	Y12
V5	IO_L6N_14	IO_L27P_14	Y13
U16	IO_L7P_14	IO_L26N_14	AD5
V17	IO_L7N_14	IO_L26P_14	AD6
W7	IO_L8P_CC_LC_14	IO_L25N_CC_LC_14	AH4
V7	IO_L8N_CC_LC_14	IO_L25P_CC_LC_14	AJ4
AC3	IO_L9P_CC_LC_14	IO_L24N_CC_LC_14	AE3
AB3	IO_L9N_CC_LC_14	IO_L24P_CC_LC_14	AF3
Y4	IO_L10P_14	IO_L23N_VRP_14	W11
Y3	IO_L10N_14	IO_L23P_VRN_14	W12
V13	IO_L11P_14	IO_L22N_14	AA6
V12	IO_L11N_14	IO_L22P_14	AB7
AA6	IO_L12P_14	IO_L21N_14	Y14
AA4	IO_L12N_VREF_14	IO_L21P_14	W14
Y11	IO_L13P_14	IO_L20N_VREF_14	AC4
W10	IO_L13N_14	IO_L20P_14	AD4
Y9	IO_L14P_14	IO_L19N_14	W16
W9	IO_L14N_14	IO_L19P_14	W17
V15	IO_L15P_14	IO_L18N_14	AB5
W15	IO_L15N_14	IO_L18P_14	AC5
Y8	IO_L16P_14	IO_L17N_14	AE4
Y7	IO_L16N_14	IO_L17P_14	AF4

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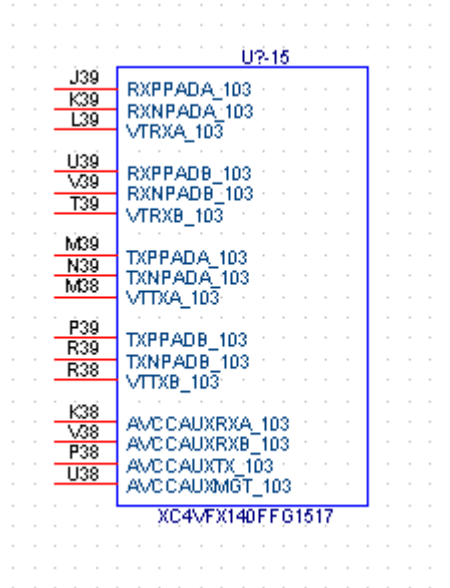
13. MGT 101



14. MGT 102



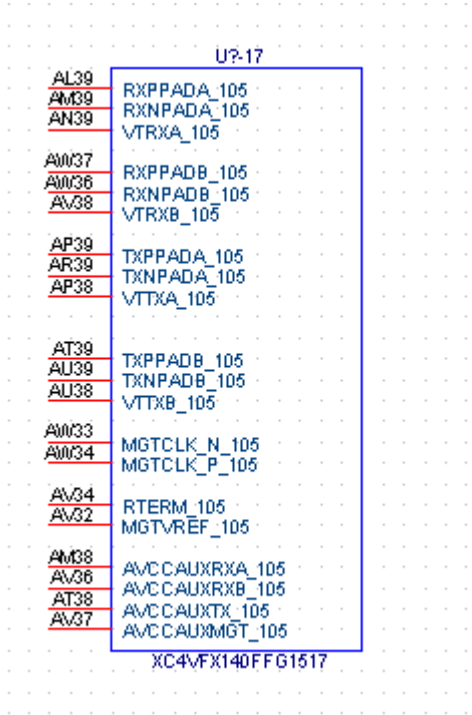
15. MGT 103



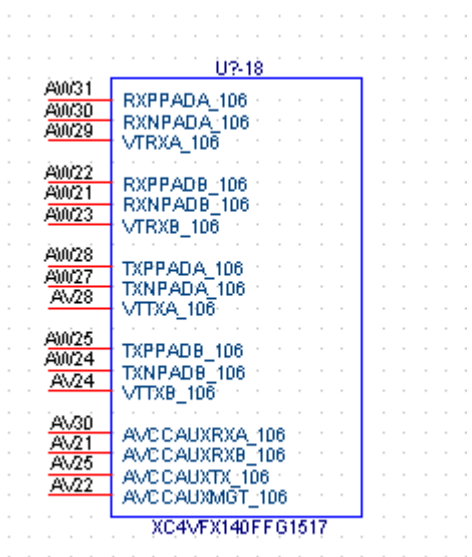
16. MGT 104

Not connected

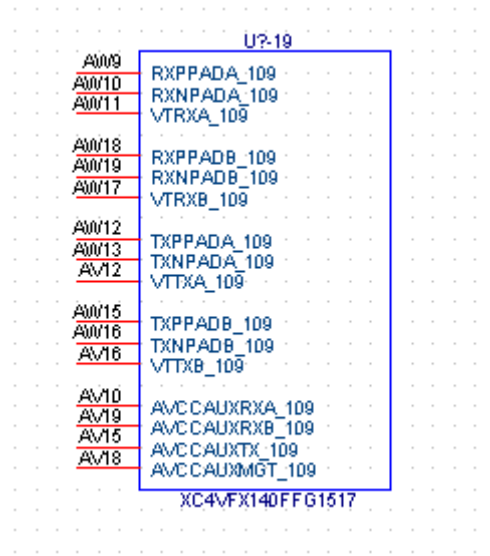
17. MGT 105



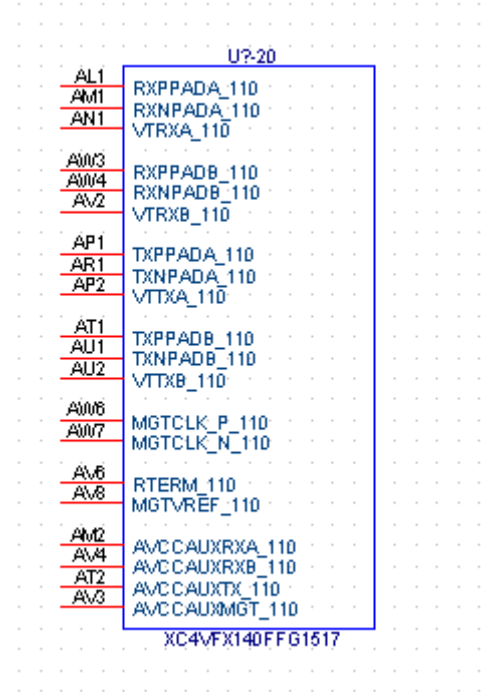
18. MGT 106



19. MGT 109



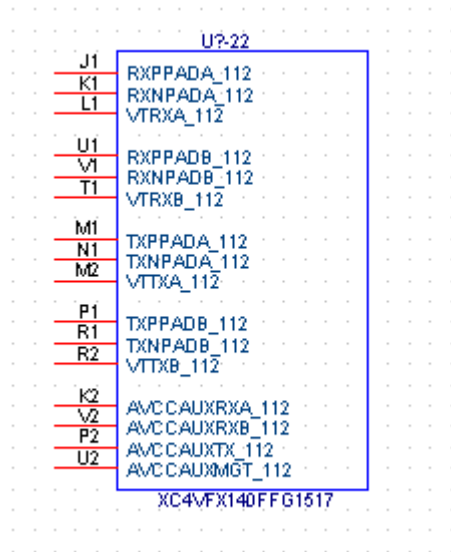
20. MGT 110



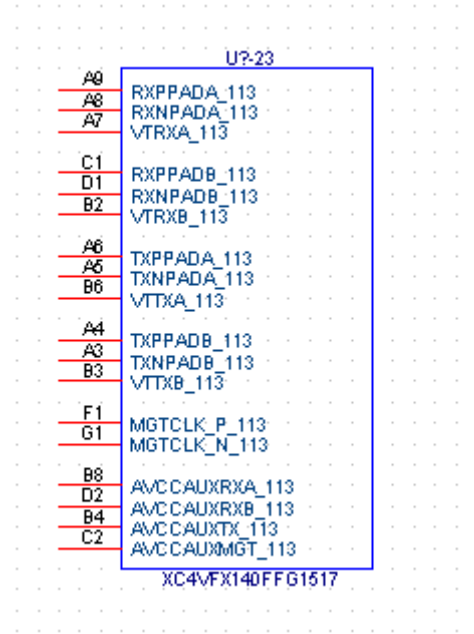
21. MGT 111

Not Connected

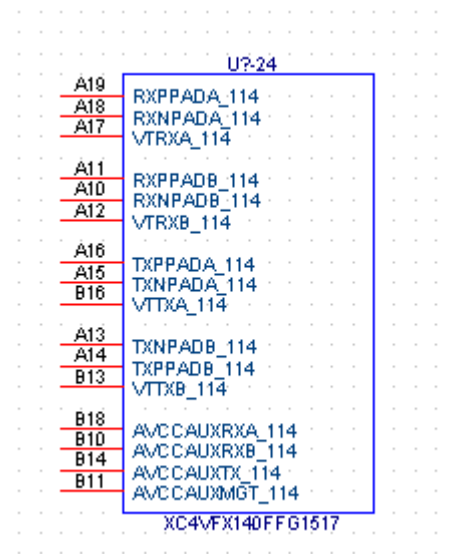
22. MGT 112



23. MGT 113



24. MGT 114



25. MGT Ground

U?-25			
B20			B19
B21	GND_A_101	GND_A_114	B17
B23	GND_A_101	GND_A_114	B15
B25	GND_A_101	GND_A_114	B12
B28	GND_A_101	GND_A_114	A20
A38			W2
B31	GND_A_102	GND_A_113	H1
B33	GND_A_102	GND_A_113	G2
B35	GND_A_102	GND_A_113	F2
B39	GND_A_102	GND_A_113	E2
E38	GND_A_102	GND_A_113	E1
E39	GND_A_102	GND_A_113	B9
F38	GND_A_102	GND_A_113	B7
G38	GND_A_102	GND_A_113	B5
H38	GND_A_102	GND_A_113	B1
H39	GND_A_102	GND_A_113	A2
J38			T2
L38	GND_A_103	GND_A_112	N2
N38	GND_A_103	GND_A_112	L2
T38	GND_A_103	GND_A_112	J2
W38	GND_A_103	GND_A_112	H2
AK39			AW8
AL38	GND_A_105	GND_A_110	AW5
AN38	GND_A_105	GND_A_110	AW2
AR38	GND_A_105	GND_A_110	AV7
AV23	GND_A_105	GND_A_110	AV5
AV26	GND_A_105	GND_A_110	AV1
AV35	GND_A_105	GND_A_110	AR2
AV39	GND_A_105	GND_A_110	AN2
AW20	GND_A_105	GND_A_110	AL2
AW38	GND_A_105	GND_A_110	AK1
AV27			AW14
AV29	GND_A_106	GND_A_109	AV9
AV31	GND_A_106	GND_A_109	AV20
AV33	GND_A_106	GND_A_109	AV17
AW26	GND_A_106	GND_A_109	AV14
AW32	GND_A_106	GND_A_109	AV13
AW35	GND_A_106	GND_A_109	AV11

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26. Ground 1

U?-26			
AA12	GND	GND	Y5
AA3	GND	GND	Y15
AB19	GND	GND	W8
AB9	GND	GND	W18
AC16	GND	GND	V19
AC18	GND	GND	V11
AC6	GND	GND	U4
AD13	GND	GND	U20
AD15	GND	GND	U18
AD17	GND	GND	U14
AD19	GND	GND	T7
AD3	GND	GND	T19
AE10	GND	GND	T17
AE12	GND	GND	T15
AE14	GND	GND	R20
AE16	GND	GND	R16
AE18	GND	GND	R14
AF11	GND	GND	R10
AF13	GND	GND	P3
AF15	GND	GND	P15
AF17	GND	GND	P13
AF19	GND	GND	N6
AF7	GND	GND	N16
AG12	GND	GND	N14
AG14	GND	GND	M9
AG4	GND	GND	M19
AH11	GND	GND	M15
AJ18	GND	GND	M13
AJ8	GND	GND	L14
AK15	GND	GND	L12
AK5	GND	GND	K5
AL12	GND	GND	K15
AM19	GND	GND	J8
AM9	GND	GND	J18
AN16	GND	GND	H11
AN6	GND	GND	G4
AP13	GND	GND	G14
AP3	GND	GND	F7
AR10	GND	GND	F17
AT17	GND	GND	E20
AT7	GND	GND	E10
AU14	GND	GND	D3
AU4	GND	GND	D13
C16	GND	GND	C6
	GND	GND	

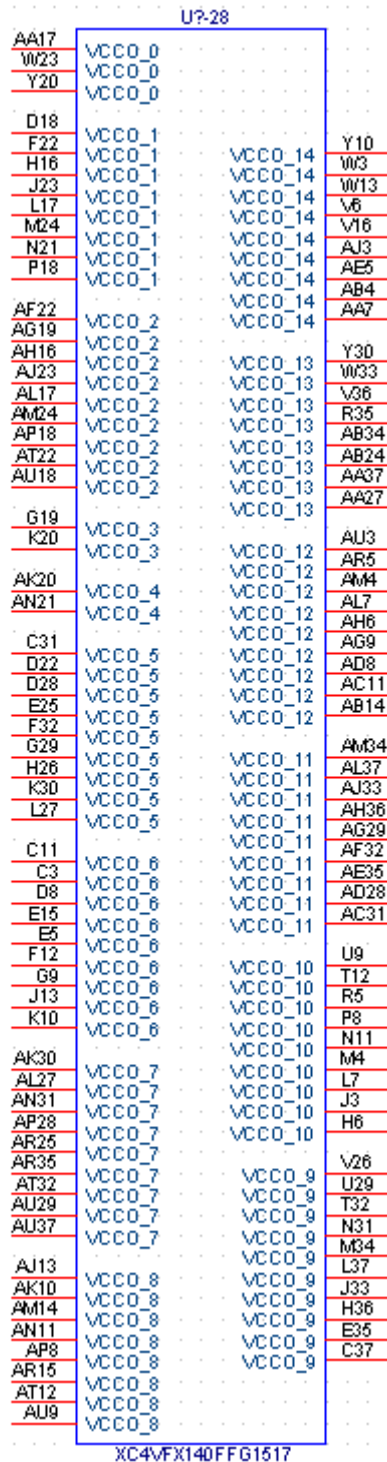
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27. Ground 2

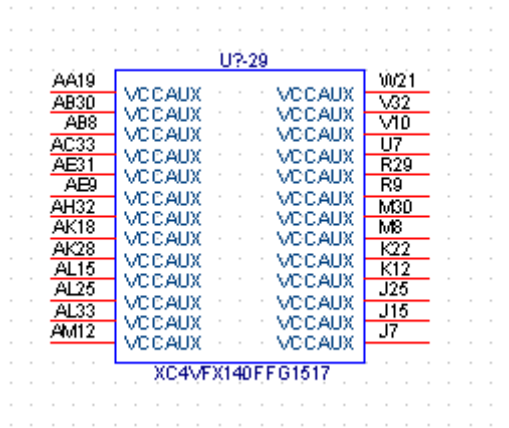
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AA22	GND	GND	Y35
AA32	GND	GND	Y25
AB21	GND	GND	W28
AB29	GND	GND	V31
AC20	GND	GND	V21
AC22	GND	GND	U34
AC26	GND	GND	U24
AC36	GND	GND	U22
AD21	GND	GND	T37
AD23	GND	GND	T27
AD25	GND	GND	T25
AD33	GND	GND	T23
AE20	GND	GND	T21
AE24	GND	GND	R30
AE26	GND	GND	R28
AE30	GND	GND	R26
AF25	GND	GND	R24
AF27	GND	GND	R22
AF37	GND	GND	P33
AG24	GND	GND	P29
AG26	GND	GND	P27
AG34	GND	GND	P25
AH21	GND	GND	P23
AH25	GND	GND	P21
AH27	GND	GND	N36
AH31	GND	GND	N28
AJ26	GND	GND	N26
AJ28	GND	GND	M29
AK25	GND	GND	L32
AK35	GND	GND	L22
AL22	GND	GND	K35
AL32	GND	GND	K25
AM29	GND	GND	J28
AN26	GND	GND	H31
AN36	GND	GND	H21
AP23	GND	GND	G34
AP33	GND	GND	G24
AR20	GND	GND	F37
AR30	GND	GND	F27
AT27	GND	GND	E30
AT37	GND	GND	D33
AU22	GND	GND	D23
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AU34	GND	GND	C26
	GND	GND	C22
		GND	

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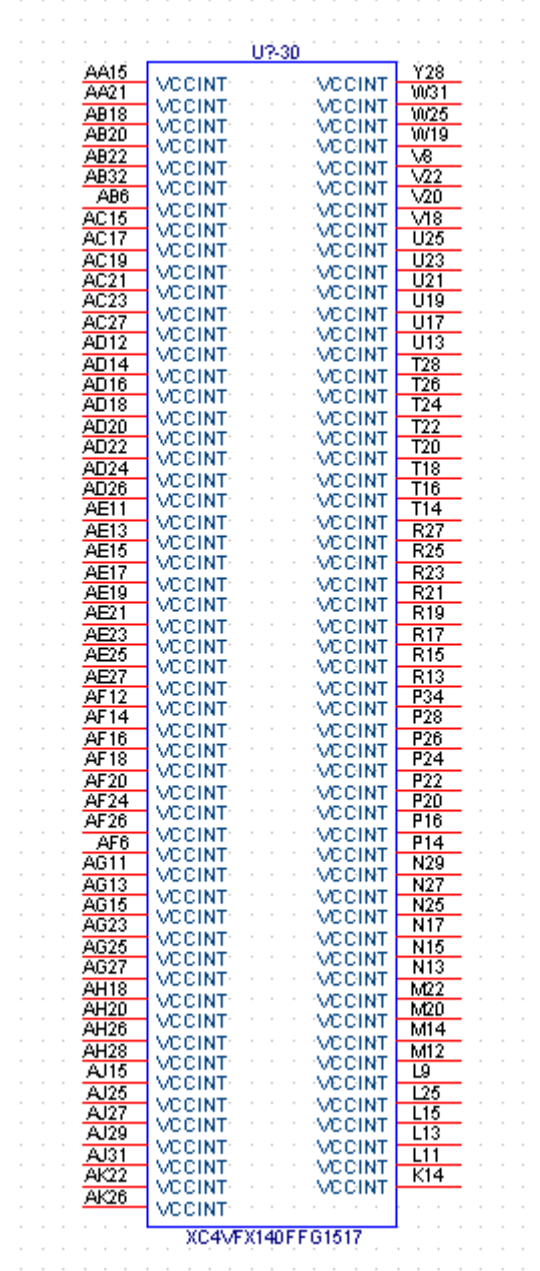
28. Power 1



29. Power 2



30. Power 3



31. Revision History

	Revision	Date	By	Comments
1	1.01	Oct 25, 2007	LD	Initial Release