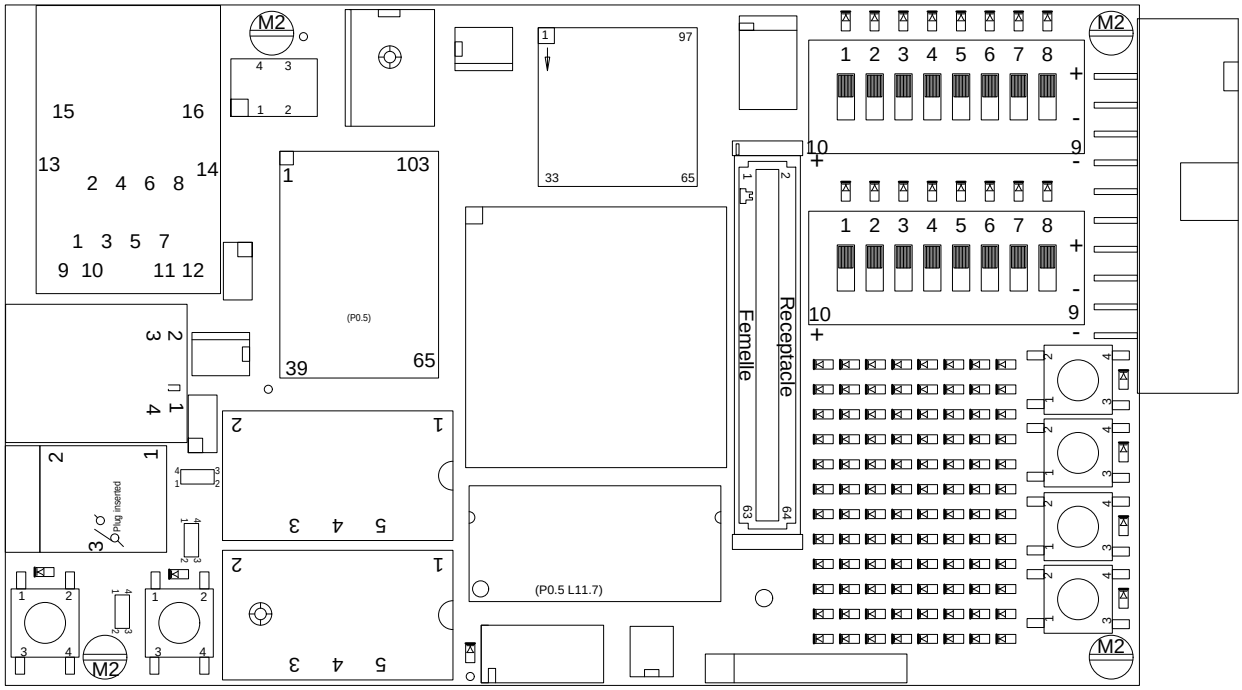
FPGA4U_C

LAP R.Beuchat
Phone: +41 21 693 3903
Fri Jul 6 11:12:28 MET DST 2007

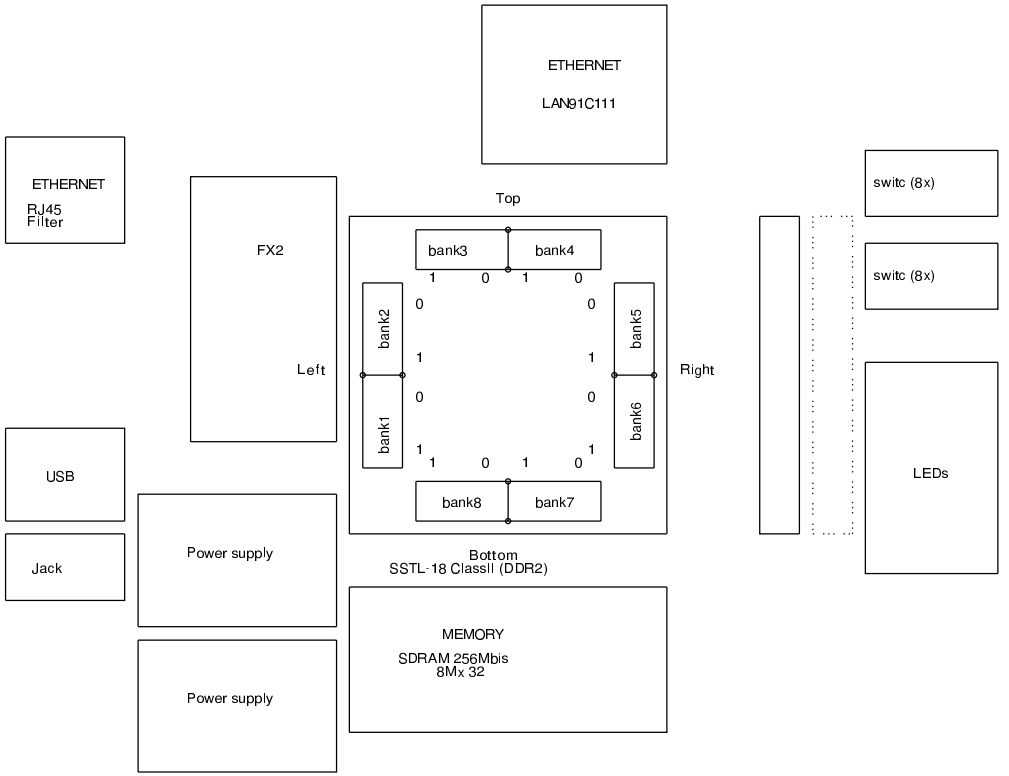
MFG_DATE: Undefined
QUANTITY: 1
SOLDERMASK: mtop mbot
MATERIAL: FR4 : 1.6 mm



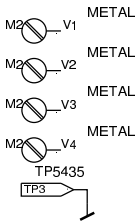
LAPUSB2FPGA

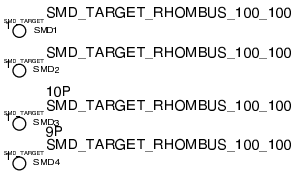
Projet FPGA 4 ALL

Pages		Bank
1	General view	
2	FPGA JTAG, EPCS16, FPGA-FX2	1 2
3	FPGA Ethernet	3 4
4	FX2-USB2	
5		
6	FPGA Extension Top	5 6
7	FPGA Memory SDRAM	7 8
8	Ethernet 91C111	
9	Memory	
10	Switchs/Leds 2x8	
11	LED Matrix	
12	FPGA Power & Capacitors	

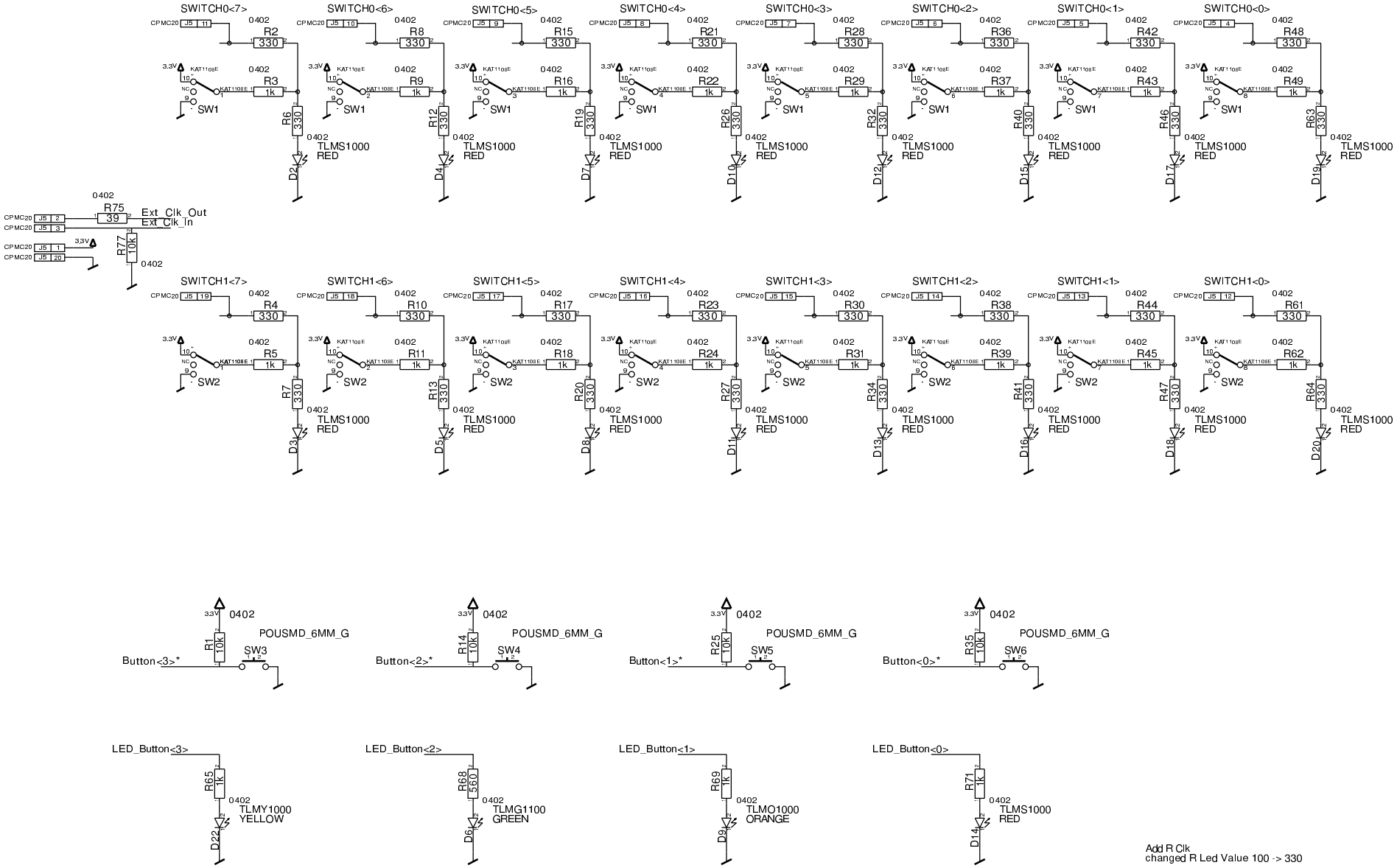


Mire de placementpochoir



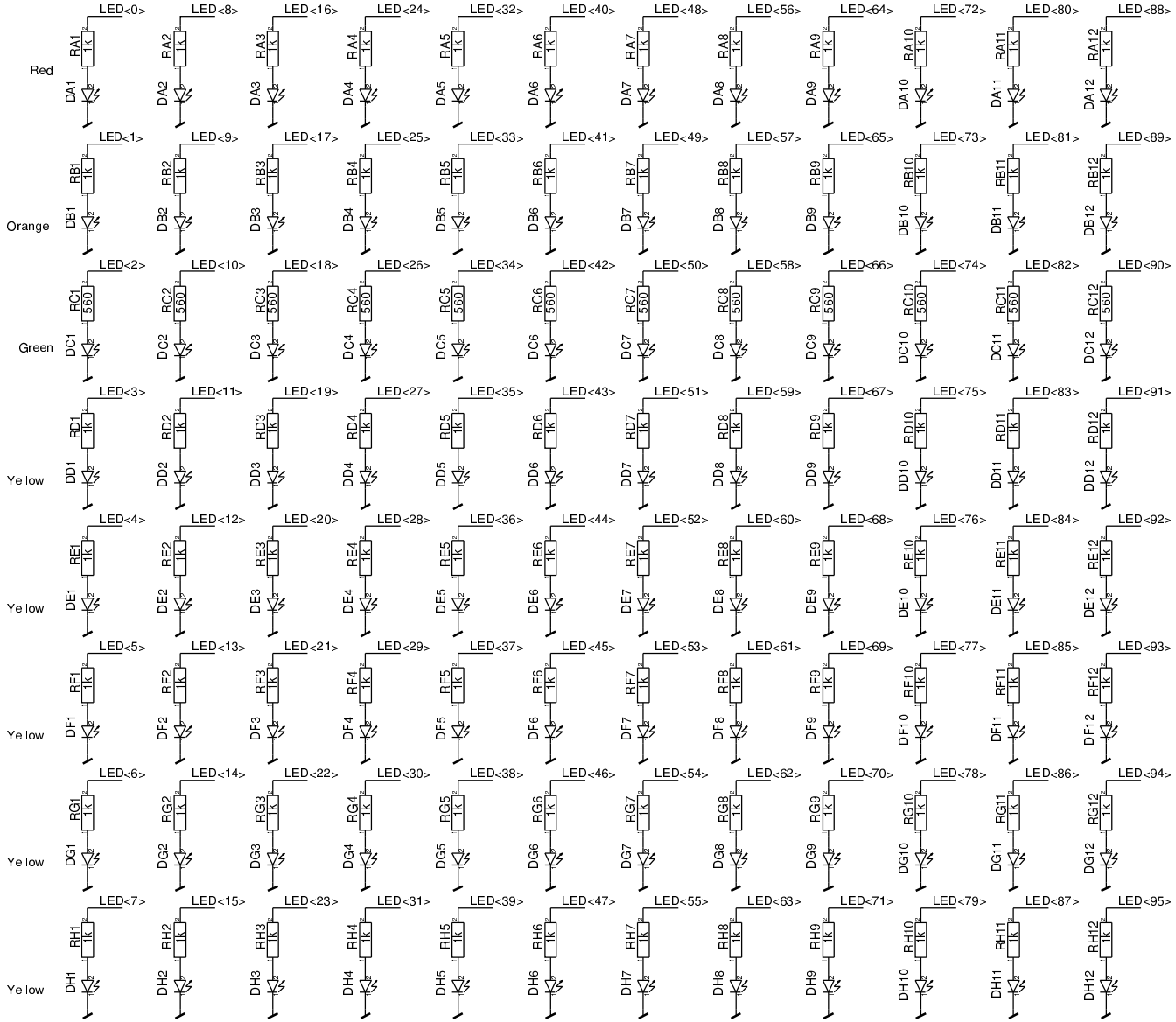


DRAWING FPGA4U VersionC	ENGINEER: RBeuchat
DATE: Wed Jul 4 18:15:16 2007	PAGE: 1/12 acort cuser

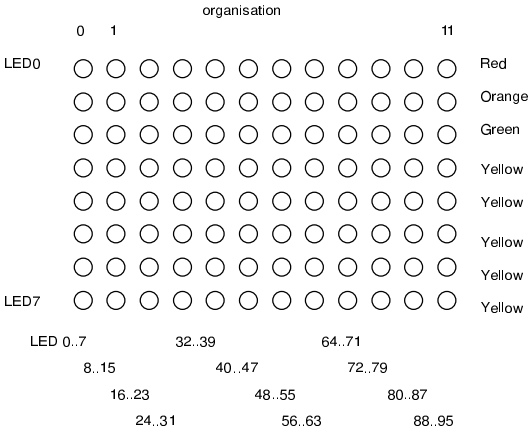


Add R Clk
changed R Led Value 100 -> 330

DRAWING	Version C	ENGINEER:
FPGA4U		RBeuchat
DATE: Wed Jul 4 18:15:21 2007		PAGE: 10/12 acort cuser



organisation

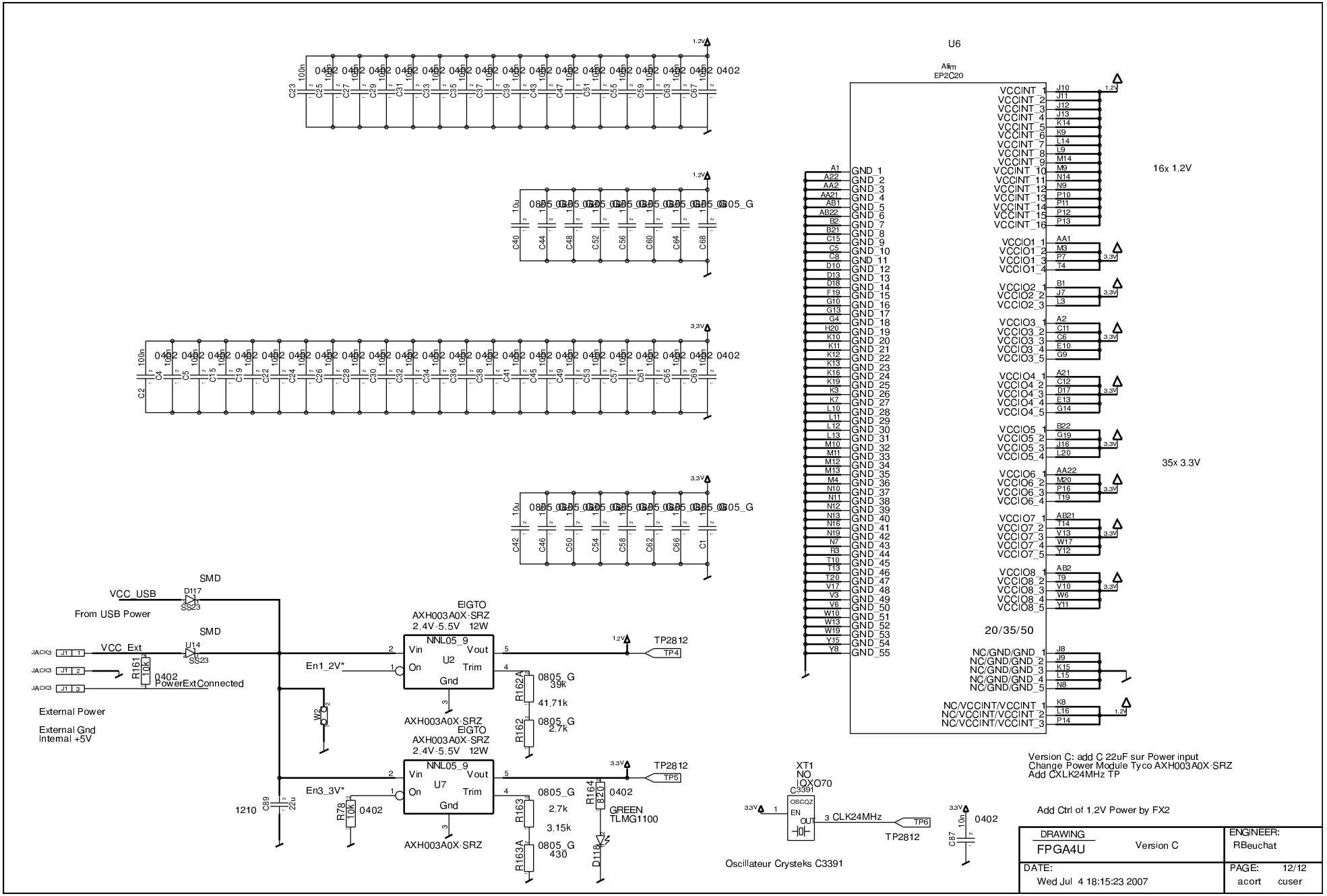


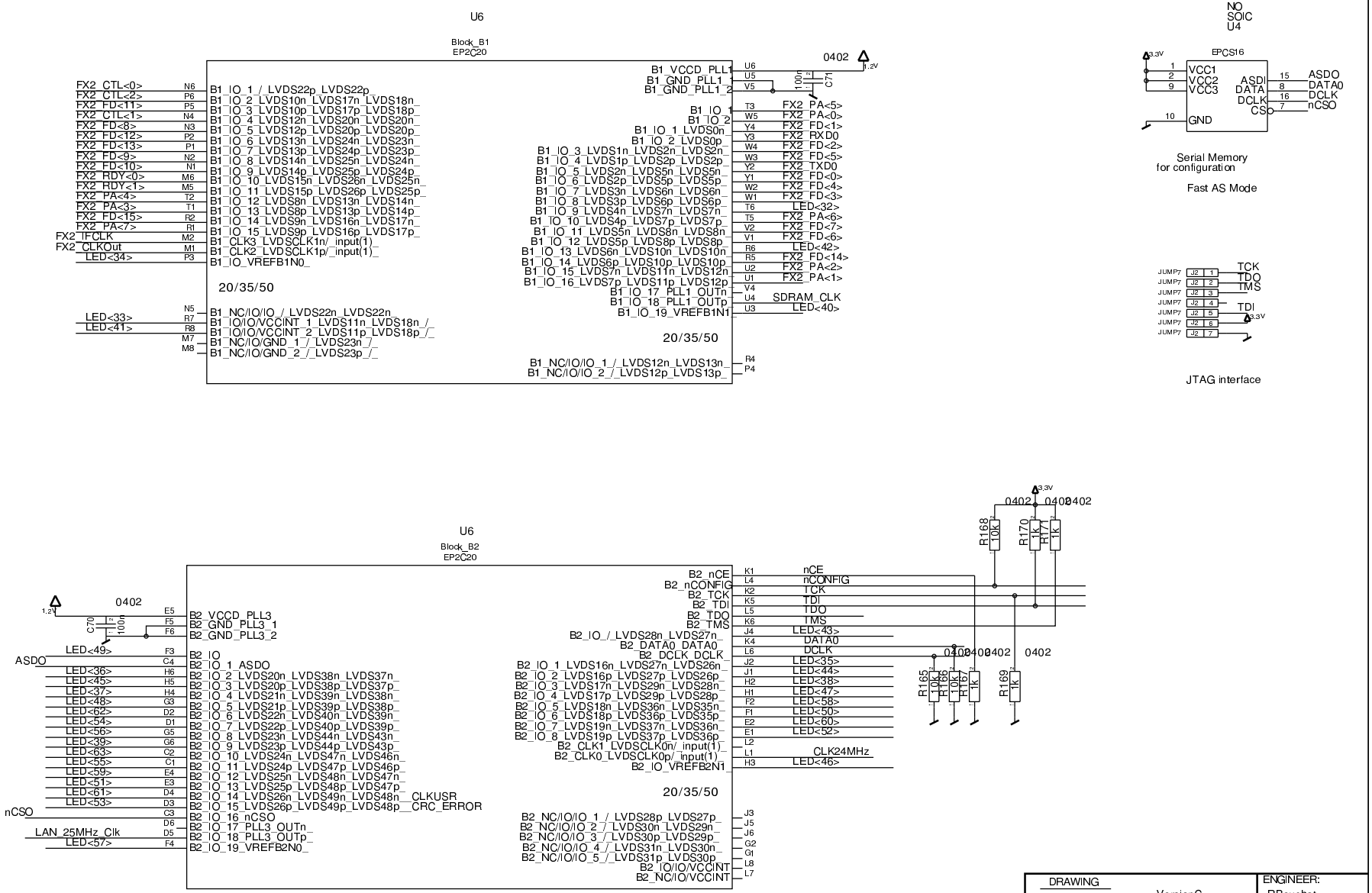
LED boitier 0603

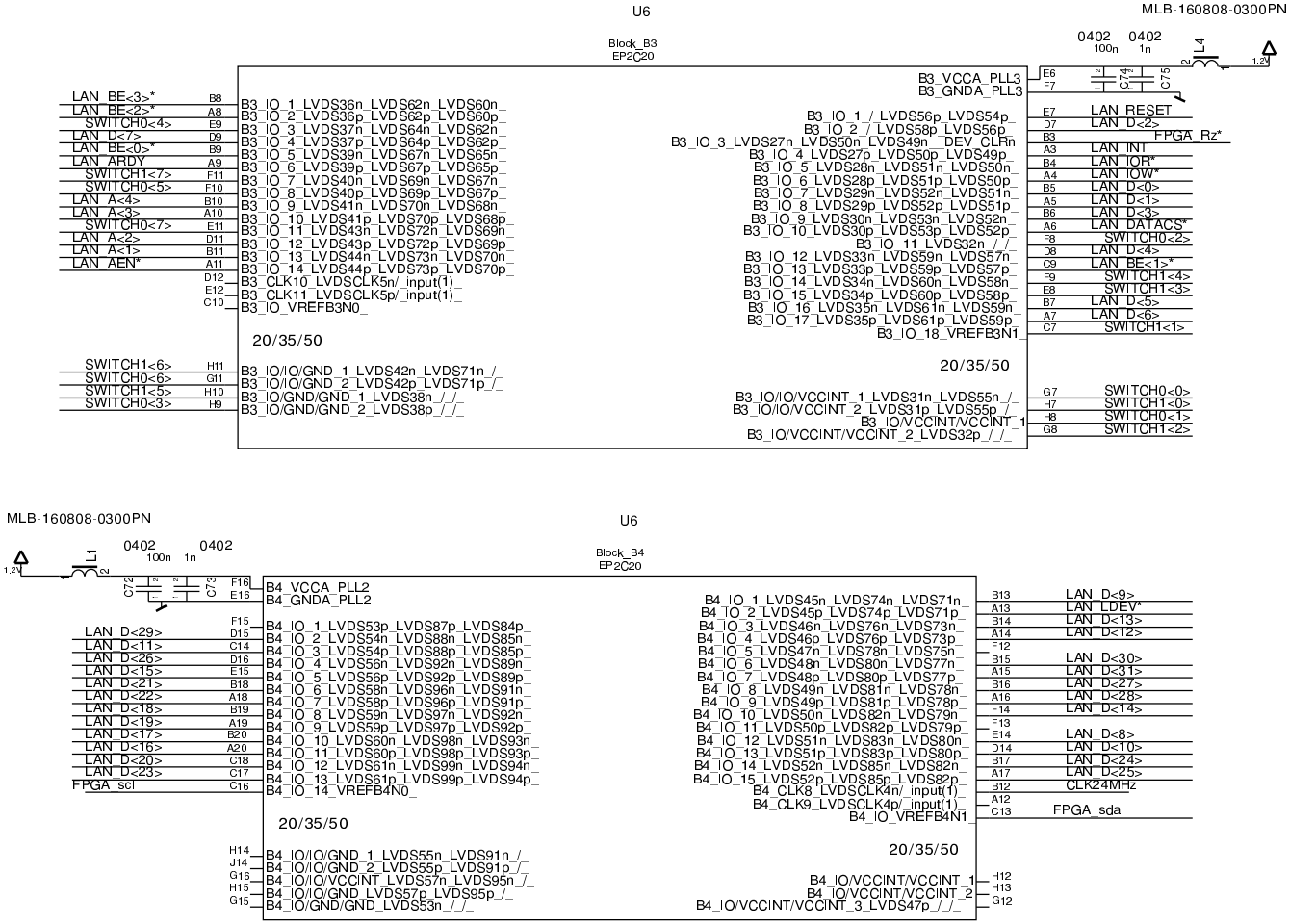
R for Green lower (20mA LEDs)

Changed R value on Red, Orange and Yelow Leds

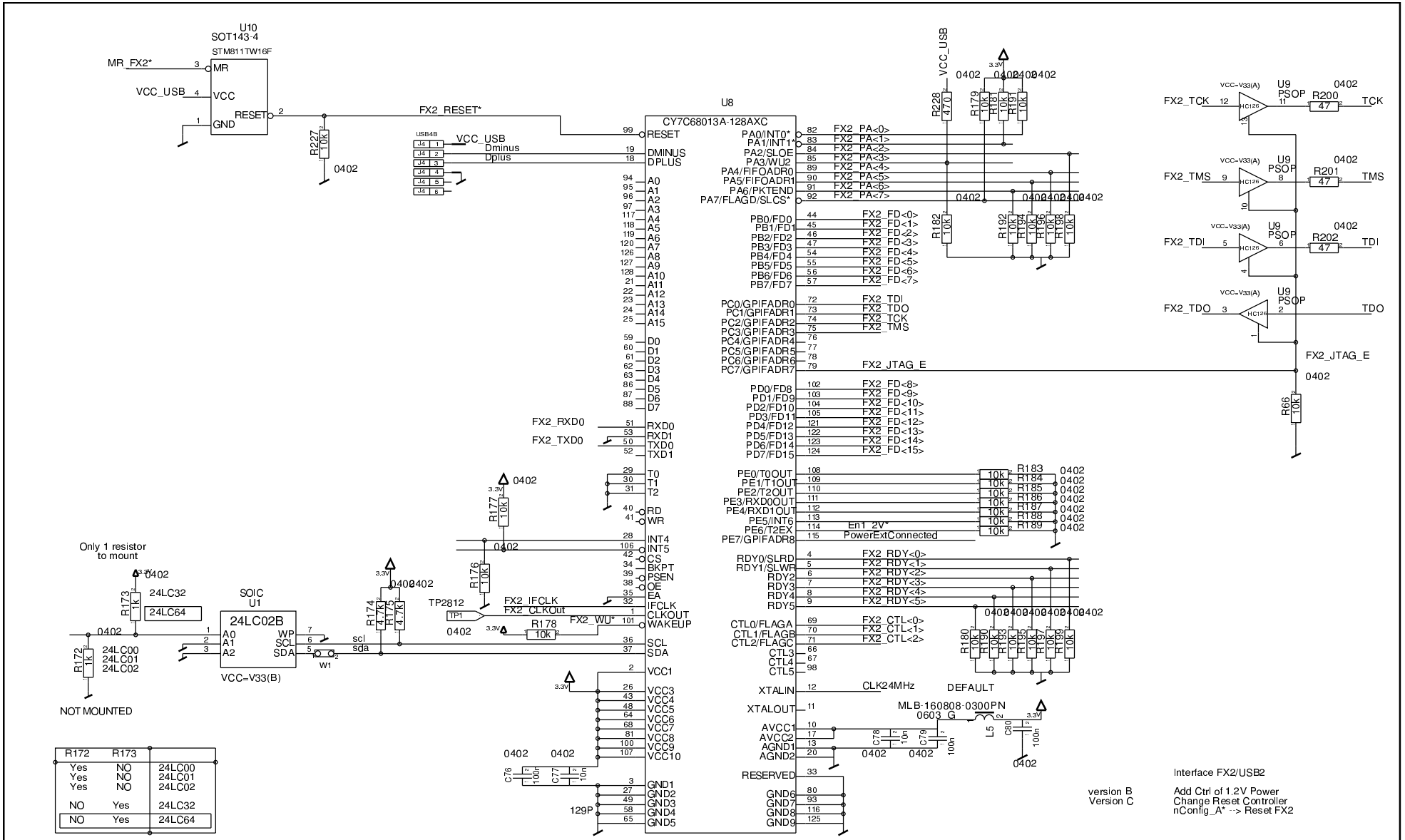
DRAWING: FPGA4U — Version C	ENGINEER: RBeuchat
DATE: Wed Jul 4 18:15:22 2007	PAGE: 11/12 acort cuser


U6
Alim
EP2C20
16x 1.2V
35x 3.3V
20/35/50
SMD
VCC_USB
D117
SS23
From USB Power
SMD
VCC_Ext
U14
SS23
JACK3
R161
10K
0402
PowerExtConnected
External Power
External Gnd
Internal +5V
ElGTO
AXH003A0X-SRZ
2.4V-5.5V 12W
NNL05_9
U2
Vin
Vout
On
Trim
Gnd
En1_2V*
R162A
39k
41.71k
R162
2.7k
TP2812
TP4
W2
ElGTO
AXH003A0X-SRZ
2.4V-5.5V 12W
U7
En3_3V*
C89
1210
22u
R78
10K
R163
2.7k
3.15k
R163A
430
R164
820
GREEN
TLMG1100
D118
TP5
XT1
NO
IQXO70
C3391
OSCQZ
EN
OUT
CLK24MHz
TP6
C87
10n
Oscillateur Crysteks C3391
Version C: add C 22uF sur Power input
Change Power Module Tyco AXH003A0X-SRZ
Add CXLK24MHz TP
Add Ctrl of 1.2V Power by FX2
DRAWING
FPGA4U
Version C
ENGINEER:
RBeuchat
DATE:
Wed Jul 4 18:15:23 2007
PAGE: 12/12
acort cuser


U6
Block_B1
EP2C20
FX2_CTL<0>
FX2_CTL<2>
FX2_FD<11>
FX2_CTL<1>
FX2_FD<8>
FX2_FD<12>
FX2_FD<13>
FX2_FD<9>
FX2_FD<10>
FX2_RDY<0>
FX2_RDY<1>
FX2_PA<4>
FX2_PA<3>
FX2_FD<15>
FX2_PA<7>
FX2_IFCLK
FX2_CLKOut
LED<34>
B1_IO_1_/_LVDS22p_LVDS22p
B1_IO_2_LVDS10n_LVDS17n_LVDS18n_
B1_IO_3_LVDS10p_LVDS17p_LVDS18p_
B1_IO_4_LVDS12n_LVDS20n_LVDS20n_
B1_IO_5_LVDS12p_LVDS20p_LVDS20p_
B1_IO_6_LVDS13n_LVDS24n_LVDS23n_
B1_IO_7_LVDS13p_LVDS24p_LVDS23p_
B1_IO_8_LVDS14n_LVDS25n_LVDS24n_
B1_IO_9_LVDS14p_LVDS25p_LVDS24p_
B1_IO_10_LVDS15n_LVDS26n_LVDS25n_
B1_IO_11_LVDS15p_LVDS26p_LVDS25p_
B1_IO_12_LVDS8n_LVDS13n_LVDS14n_
B1_IO_13_LVDS8p_LVDS13p_LVDS14p_
B1_IO_14_LVDS9n_LVDS16n_LVDS17n_
B1_IO_15_LVDS9p_LVDS16p_LVDS17p_
B1_CLK3_LVDSCLK1n/_input(1)_
B1_CLK2_LVDSCLK1p/_input(1)_
B1_IO_VREFB1N0_
20/35/50
LED<33>
LED<41>
B1_NC/IO/IO_/_LVDS22n_LVDS22n_
B1_IO/IO/VCCINT_1_LVDS11n_LVDS18n_/_
B1_IO/IO/VCCINT_2_LVDS11p_LVDS18p_/_
B1_NC/IO/GND_1_/_LVDS23n_/_
B1_NC/IO/GND_2_/_LVDS23p_/_
B1_VCCD_PLL1
B1_GND_PLL1_1
B1_GND_PLL1_2
0402
1.2V
100n
C71
B1_IO_1
B1_IO_2
B1_IO_1_LVDS0n_
B1_IO_2_LVDS0p_
B1_IO_3_LVDS1n_LVDS2n_LVDS2n_
B1_IO_4_LVDS1p_LVDS2p_LVDS2p_
B1_IO_5_LVDS2n_LVDS5n_LVDS5n_
B1_IO_6_LVDS2p_LVDS5p_LVDS5p_
B1_IO_7_LVDS3n_LVDS6n_LVDS6n_
B1_IO_8_LVDS3p_LVDS6p_LVDS6p_
B1_IO_9_LVDS4n_LVDS7n_LVDS7n_
B1_IO_10_LVDS4p_LVDS7p_LVDS7p_
B1_IO_11_LVDS5n_LVDS8n_LVDS8n_
B1_IO_12_LVDS5p_LVDS8p_LVDS8p_
B1_IO_13_LVDS6n_LVDS10n_LVDS10n_
B1_IO_14_LVDS6p_LVDS10p_LVDS10p_
B1_IO_15_LVDS7n_LVDS11n_LVDS12n_
B1_IO_16_LVDS7p_LVDS11p_LVDS12p_
B1_IO_17_PLL1_OUTn_
B1_IO_18_PLL1_OUTp_
B1_IO_19_VREFB1N1_
FX2_PA<5>
FX2_PA<0>
FX2_FD<1>
FX2_RXD0
FX2_FD<2>
FX2_FD<5>
FX2_TXD0
FX2_FD<0>
FX2_FD<4>
FX2_FD<3>
LED<32>
FX2_PA<6>
FX2_FD<7>
FX2_FD<6>
LED<42>
FX2_FD<14>
FX2_PA<2>
FX2_PA<1>
SDRAM_CLK
LED<40>
20/35/50
B1_NC/IO/IO_1_/_LVDS12n_LVDS13n_
B1_NC/IO/IO_2_/_LVDS12p_LVDS13p_
NO
SOIC
U4
3.3V
EPCS16
VCC1
VCC2
VCC3
GND
ASDI
DATA
DCLK
CSO
ASDO
DATA0
DCLK
nCSO
Serial Memory
for configuration
Fast AS Mode
JUMP7
J2
TCK
TDO
TMS
TDI
JTAG interface
U6
Block_B2
EP2C20
0402
C70
100n
B2_VCCD_PLL3
B2_GND_PLL3_1
B2_GND_PLL3_2
LED<49>
B2_IO
ASDO
B2_IO_1_ASDO
LED<36>
LED<45>
LED<37>
LED<48>
LED<62>
LED<54>
LED<56>
LED<39>
LED<63>
LED<55>
LED<59>
LED<51>
LED<61>
LED<53>
B2_IO_2_LVDS20n_LVDS38n_LVDS37n_
B2_IO_3_LVDS20p_LVDS38p_LVDS37p_
B2_IO_4_LVDS21n_LVDS39n_LVDS38n_
B2_IO_5_LVDS21p_LVDS39p_LVDS38p_
B2_IO_6_LVDS22n_LVDS40n_LVDS39n_
B2_IO_7_LVDS22p_LVDS40p_LVDS39p_
B2_IO_8_LVDS23n_LVDS44n_LVDS43n_
B2_IO_9_LVDS23p_LVDS44p_LVDS43p_
B2_IO_10_LVDS24n_LVDS47n_LVDS46n_
B2_IO_11_LVDS24p_LVDS47p_LVDS46p_
B2_IO_12_LVDS25n_LVDS48n_LVDS47n_
B2_IO_13_LVDS25p_LVDS48p_LVDS47p_
B2_IO_14_LVDS26n_LVDS49n_LVDS48n__CLKUSR
B2_IO_15_LVDS26p_LVDS49p_LVDS48p__CRC_ERROR
nCSO
B2_IO_16_nCSO
LAN_25MHz_Clk
LED<57>
B2_IO_17_PLL3_OUTn_
B2_IO_18_PLL3_OUTp_
B2_IO_19_VREFB2N0_
B2_nCE
B2_nCONFIG
B2_TCK
B2_TDI
B2_TDO
B2_TMS
B2_IO_/_LVDS28n_LVDS27n_
B2_DATA0_DATA0_
B2_DCLK_DCLK_
B2_IO_1_LVDS16n_LVDS27n_LVDS26n_
B2_IO_2_LVDS16p_LVDS27p_LVDS26p_
B2_IO_3_LVDS17n_LVDS29n_LVDS28n_
B2_IO_4_LVDS17p_LVDS29p_LVDS28p_
B2_IO_5_LVDS18n_LVDS36n_LVDS35n_
B2_IO_6_LVDS18p_LVDS36p_LVDS35p_
B2_IO_7_LVDS19n_LVDS37n_LVDS36n_
B2_IO_8_LVDS19p_LVDS37p_LVDS36p_
B2_CLK1_LVDSCLK0n/_input(1)_
B2_CLK0_LVDSCLK0p/_input(1)_
B2_IO_VREFB2N1_
nCE
nCONFIG
TCK
TDI
TDO
TMS
LED<43>
DATA0
DCLK
LED<35>
LED<44>
LED<38>
LED<47>
LED<58>
LED<50>
LED<60>
LED<52>
CLK24MHz
LED<46>
20/35/50
B2_NC/IO/IO_1_/_LVDS28p_LVDS27p_
B2_NC/IO/IO_2_/_LVDS30n_LVDS29n_
B2_NC/IO/IO_3_/_LVDS30p_LVDS29p_
B2_NC/IO/IO_4_/_LVDS31n_LVDS30n_
B2_NC/IO/IO_5_/_LVDS31p_LVDS30p_
B2_IO/IO/VCCINT
B2_NC/IO/VCCINT
R168
R170
R171
R165
R166
R167
R169
10K
1K
DRAWING
FPGA4U
VersionC
ENGINEER:
RBeuchat
DATE:
Wed Jul 4 18:15:16 2007
PAGE: 2/12
acort cuser



DRAWING: FPGA4U (FPGA4U) VersionB	ENGINEER: RBeuchat
DATE: Wed Jul 4 18:15:17 2007	PAGE: 3/12 acort cuser



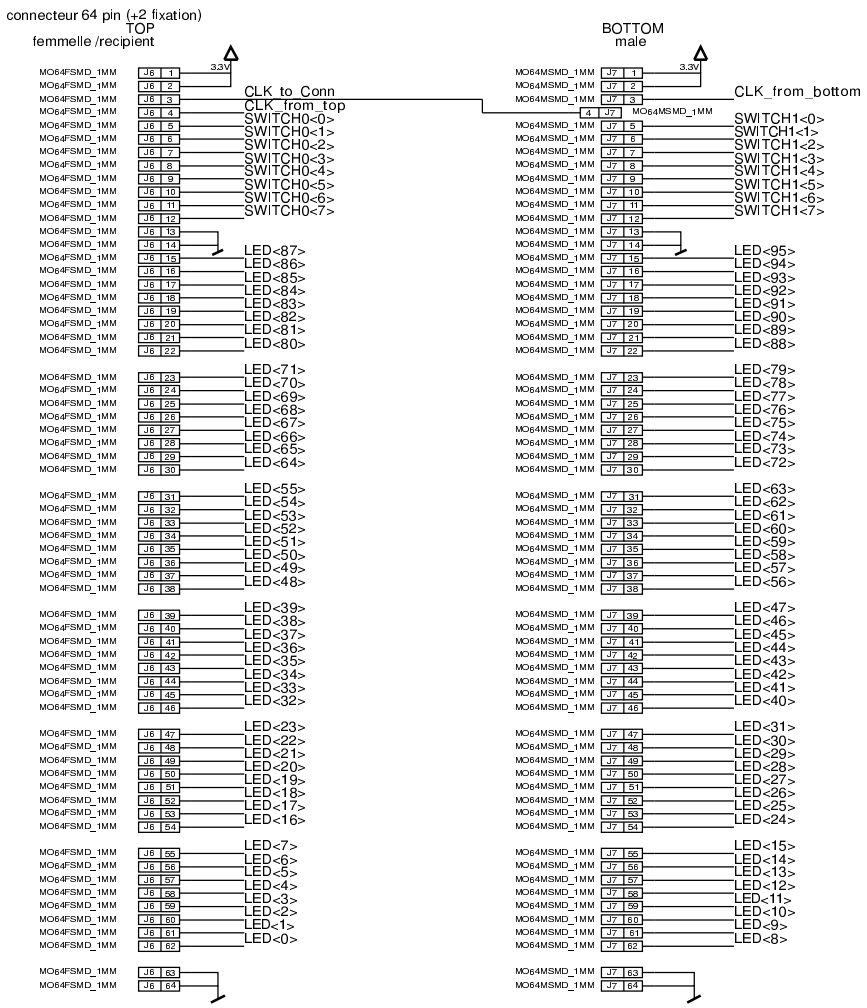
R172	R173	
Yes	NO	24LC00
Yes	NO	24LC01
Yes	NO	24LC02
NO	Yes	24LC32
NO	Yes	24LC64

Interface FX2/USB2

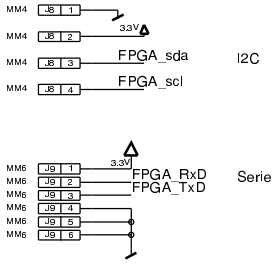
version B
Version C

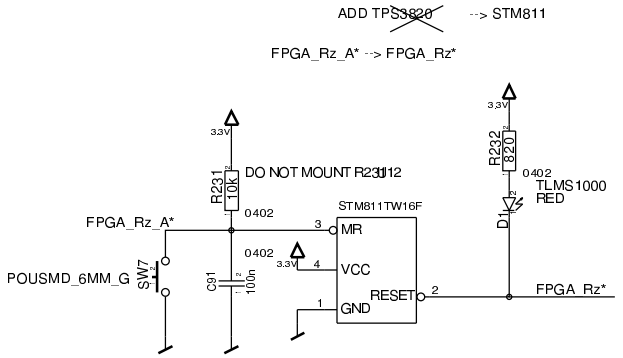
Add Ctrl of 1,2V Power
Change Reset Controller
nConfig_A* --> Reset FX2

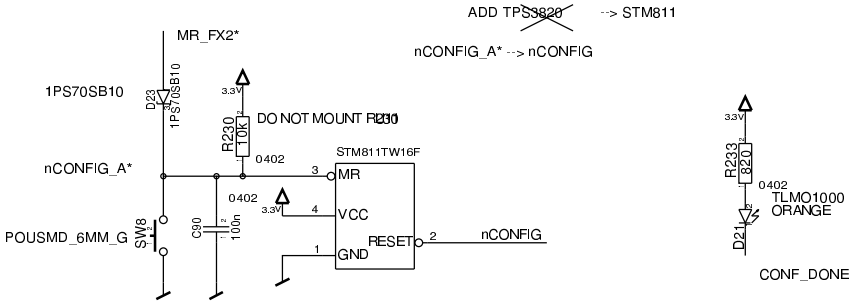
DRAWING		ENGINEER:
FPGA4U	version C	RBeuchat
DATE: Thu Jul 5 15:32:46 2007		PAGE: 4/12 acort cuser



Connecteurs type IEEE1386 64 pins

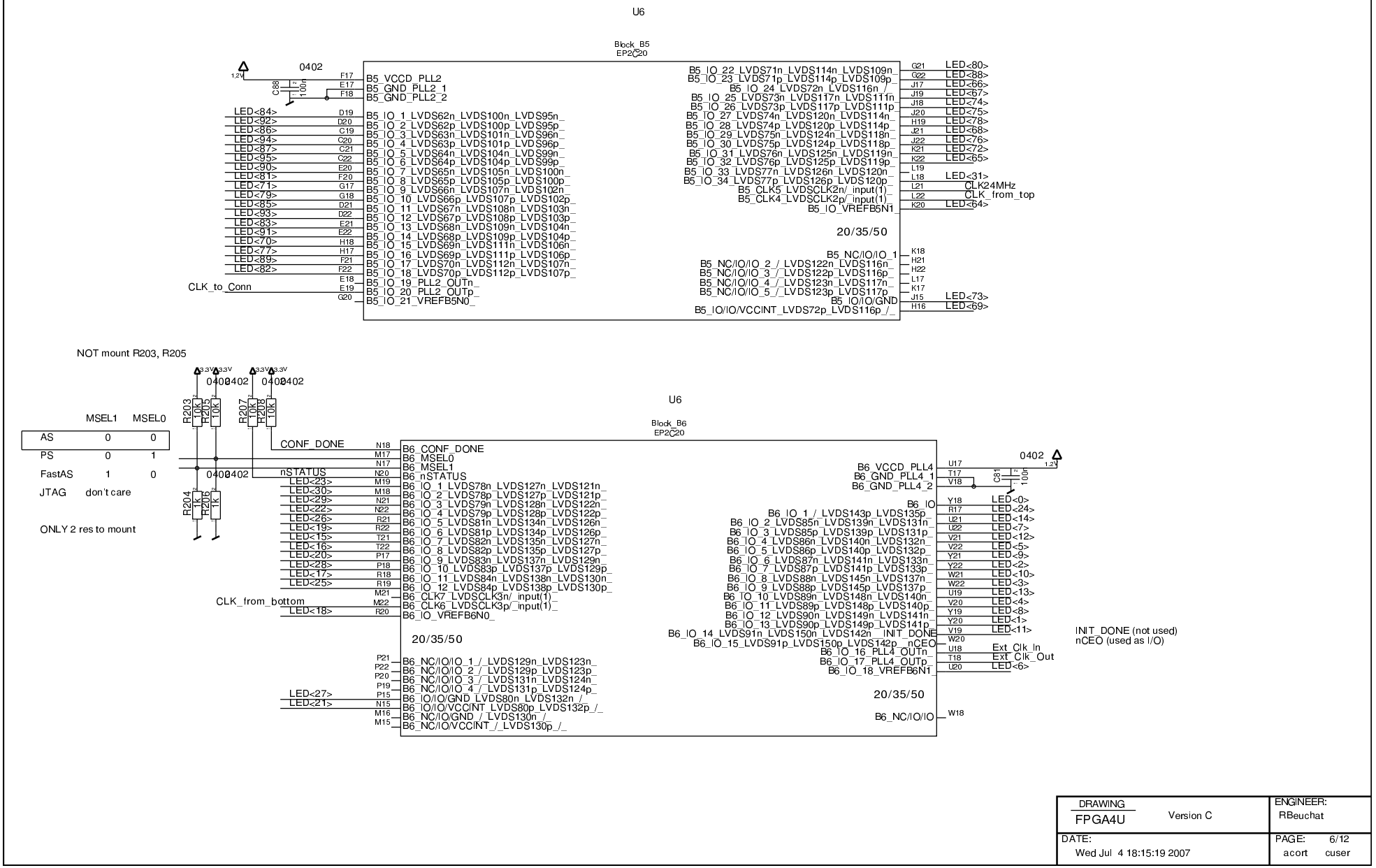




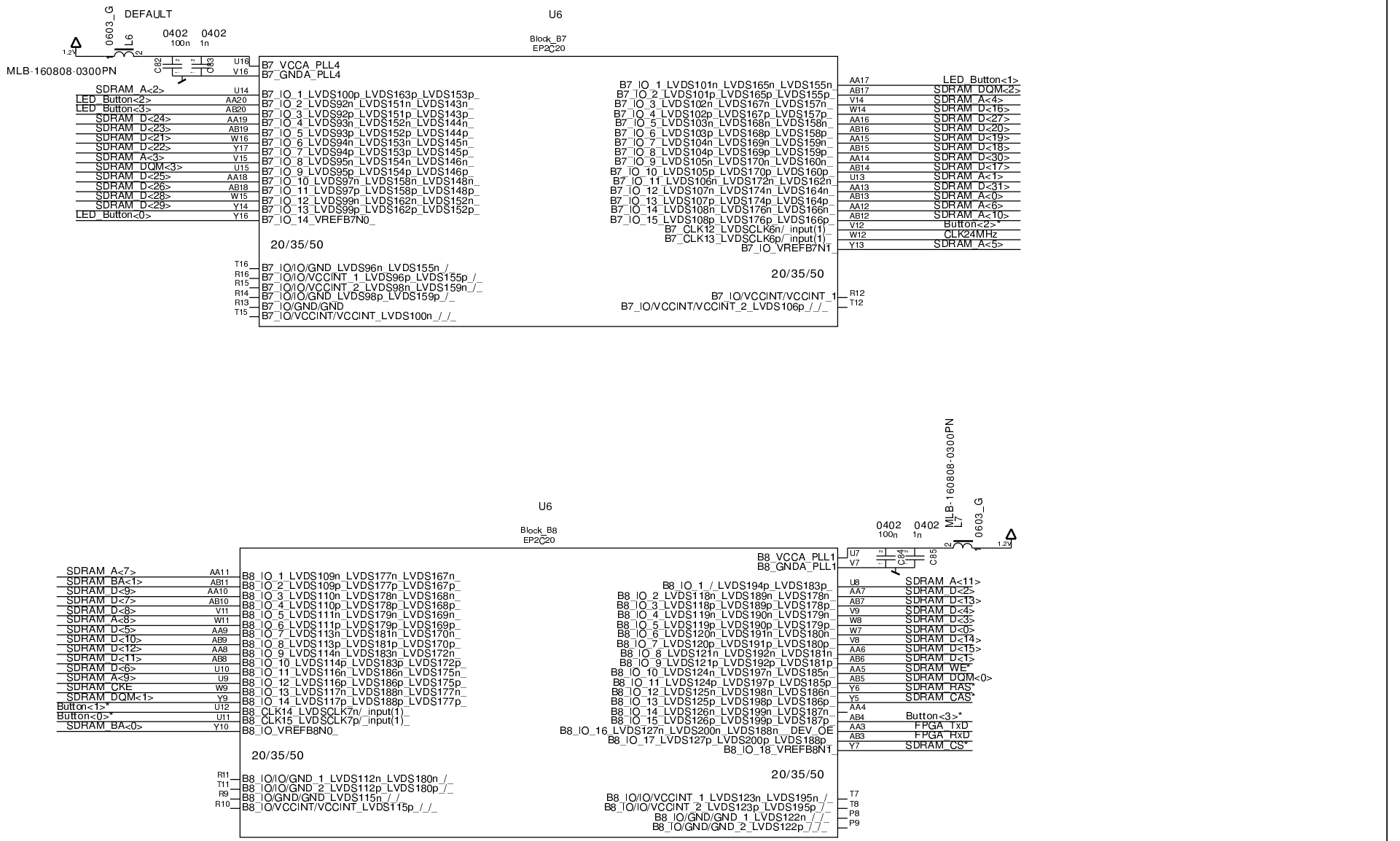


Version C Change Reset Controller
Bouton nConfig_A* --> Reset_FX2

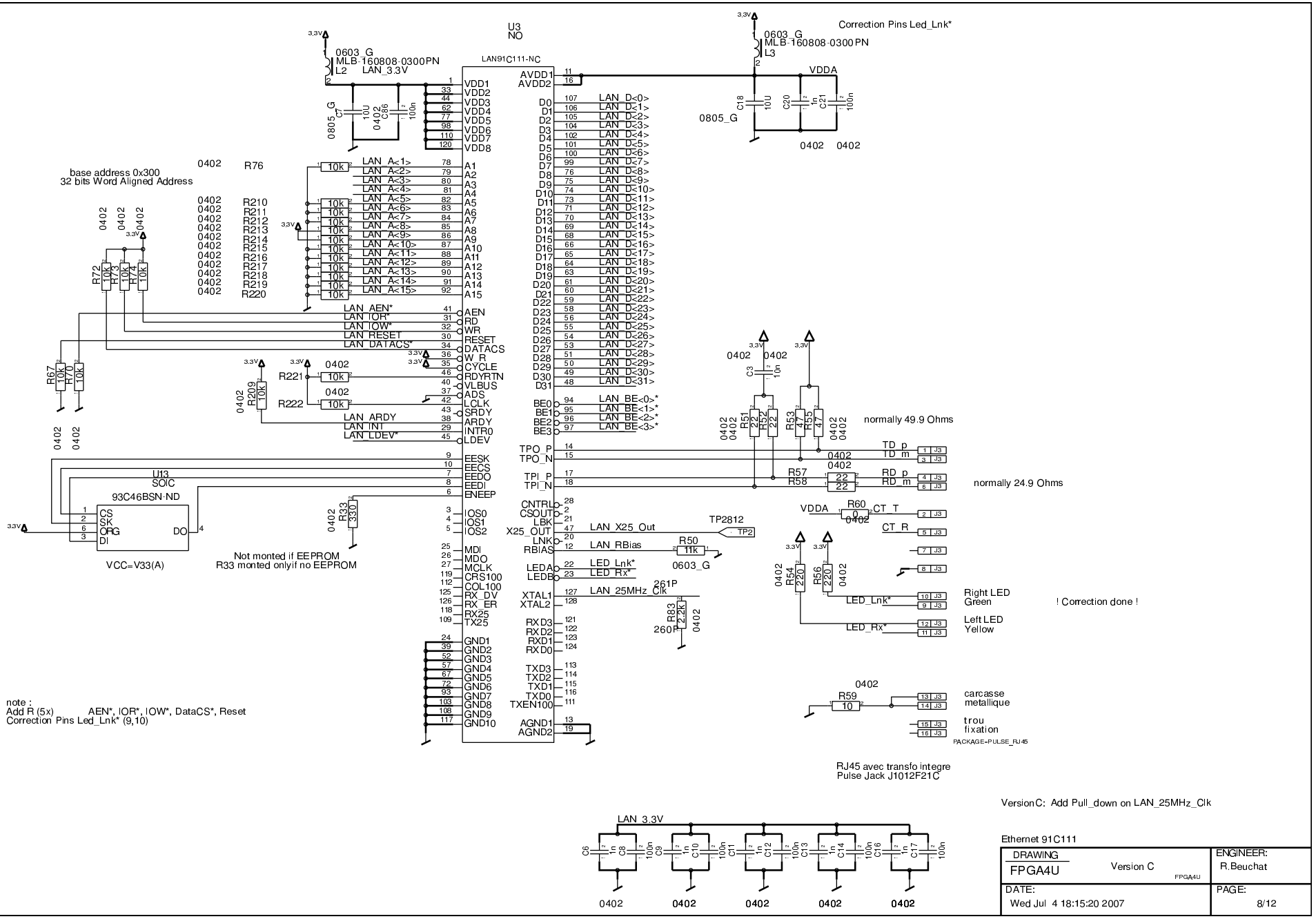
DRAWING: FPGA4U — Version C	ENGINEER: RBeuchat
DATE: Wed Jul 4 18:15:18 2007	PAGE: 5/12 acort cuser



DRAWING FPGA4U Version C		ENGINEER: RBeuchat
DATE: Wed Jul 4 18:15:19 2007		PAGE: 6/12 acort cuser



DRAWING: FPGA4U — Version C	ENGINEER: RBeuchat
DATE: Wed Jul 4 18:15:19 2007	PAGE: 7/12 acort cuser


U3
NO
LAN91C111-NC
Correction Pins Led_Lnk*
0603_G
MLB-160808-0300PN
L2 LAN_3.3V
L3
VDDA
base address 0x300
32 bits Word Aligned Address
R76
R210
R211
R212
R213
R214
R215
R216
R217
R218
R219
R220
LAN_A<1>
LAN_A<2>
LAN_A<3>
LAN_A<4>
LAN_A<5>
LAN_A<6>
LAN_A<7>
LAN_A<8>
LAN_A<9>
LAN_A<10>
LAN_A<11>
LAN_A<12>
LAN_A<13>
LAN_A<14>
LAN_A<15>
LAN_AEN*
LAN_IOR*
LAN_IOW*
LAN_RESET
LAN_DATACS*
LAN_ARDY
LAN_INT
LAN_LDEV*
R221
R222
R209
R67
R70
R72
R73
R74
R75
EESK
EECS
EEDO
EEDI
EENEEP
93C46BSN-ND
SOIC
VCC=V33(A)
Not monted if EEPROM
R33 monted onlyif no EEPROM
R33
330
R50
11k
LAN_RBias
LAN_X25_Out
TP2812
X25_OUT
LED_Lnk*
LED_Rx*
LAN_25MHz_Clk
261P
260P
R83
2.2k
LAN_D<0>
LAN_D<1>
LAN_D<2>
LAN_D<3>
LAN_D<4>
LAN_D<5>
LAN_D<6>
LAN_D<7>
LAN_D<8>
LAN_D<9>
LAN_D<10>
LAN_D<11>
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LAN_D<17>
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LAN_D<19>
LAN_D<20>
LAN_D<21>
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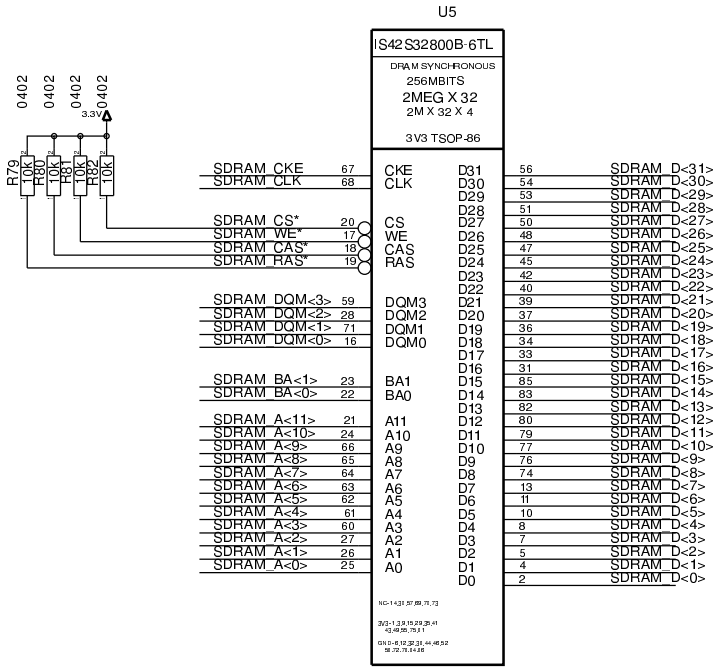
LAN_D<23>
LAN_D<24>
LAN_D<25>
LAN_D<26>
LAN_D<27>
LAN_D<28>
LAN_D<29>
LAN_D<30>
LAN_D<31>
LAN_BE<0>*
LAN_BE<1>*
LAN_BE<2>*
LAN_BE<3>*
normally 49.9 Ohms
normally 24.9 Ohms
TD_p
TD_m
RD_p
RD_m
CT_T
CT_R
R60
R54
R56
Right LED
Green
Left LED
Yellow
! Correction done !
R59
carcasse
metallique
trou
fixation
PACKAGE=PULSE_RJ45
RJ45 avec transfo integre
Pulse Jack J1012F21C
LAN_3.3V
note :
Add R (5x) AEN*, IOR*, IOW*, DataCS*, Reset
Correction Pins Led_Lnk* (9,10)
VersionC: Add Pull_down on LAN_25MHz_Clk
Ethernet 91C111
DRAWING
FPGA4U
Version C
ENGINEER:
R.Beuchat
DATE:
Wed Jul 4 18:15:20 2007
PAGE:
8/12



Add R pull_up

DRAWING FPGA4U Version C	ENGINEER: RBeuchat
DATE: Wed Jul 4 18:15:20 2007	PAGE: 9/12 acort cuser

Signal Page Ref fpga4u_c

Ref Des	Pages
ASDO	2 2
Button<0>*	10 7
Button<1>*	10 7
Button<2>*	10 7
Button<3>*	10 7
CLK24MHz	12 2 3 4 6 7
CLK_from_bottom	5 6
CLK_from_top	5 6
CLK_to_Conn	5 6
CONF_DONE	5 6
CT_R	8
CT_T	8
DATA0	2 2
DCLK	2 2
Dminus	4
Dplus	4
En1_2V*	12 4
En3_3V*	12
Ext_Clk_In	10 6
Ext_Clk_Out	10 6
FPGA_RxD	5 7
FPGA_Rz*	3 5
FPGA_Rz_A*	5
FPGA_scl	3 5
FPGA_sda	3 5
FPGA_TxD	5 7
FX2_CLKOut	2 4
FX2_CTL<0>	2 4
FX2_CTL<1>	2 4
FX2_CTL<2>	2 4
FX2_FD<0>	2 4
FX2_FD<1>	2 4
FX2_FD<2>	2 4
FX2_FD<3>	2 4
FX2_FD<4>	2 4
FX2_FD<5>	2 4
FX2_FD<6>	2 4
FX2_FD<7>	2 4
FX2_FD<8>	2 4
FX2_FD<9>	2 4
FX2_FD<10>	2 4
FX2_FD<11>	2 4
FX2_FD<12>	2 4
FX2_FD<13>	2 4
FX2_FD<14>	2 4
FX2_FD<15>	2 4
FX2_IFCLK	2 4
FX2_JTAG_E	4 4
FX2_PA<0>	2 4
FX2_PA<1>	2 4
FX2_PA<2>	2 4
FX2_PA<3>	2 4
FX2_PA<4>	2 4
FX2_PA<5>	2 4
FX2_PA<6>	2 4
FX2_PA<7>	2 4
FX2_RDY<0>	2 4
FX2_RDY<1>	2 4

Ref Des	Pages
FX2_RDY<2>	4
FX2_RDY<3>	4
FX2_RDY<4>	4
FX2_RDY<5>	4
FX2_RESET*	4
FX2_RXD0	2 4
FX2_TCK	4 4
FX2_TDI	4 4
FX2_TDO	4 4
FX2_TMS	4 4
FX2_TXD0	2 4
FX2_WU*	4
LAN_25MHz_Clk	2 8
LAN_3.3V	8 8
LAN_A<1>	3 8
LAN_A<2>	3 8
LAN_A<3>	3 8
LAN_A<4>	3 8
LAN_A<5>	8
LAN_A<6>	8
LAN_A<7>	8
LAN_A<8>	8
LAN_A<9>	8
LAN_A<10>	8
LAN_A<11>	8
LAN_A<12>	8
LAN_A<13>	8
LAN_A<14>	8
LAN_A<15>	8
LAN_AEN*	3 8
LAN_ARDY	3 8
LAN_BE<0>*	3 8
LAN_BE<1>*	3 8
LAN_BE<2>*	3 8
LAN_BE<3>*	3 8
LAN_D<0>	3 8
LAN_D<1>	3 8
LAN_D<2>	3 8
LAN_D<3>	3 8
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LAN_D<7>	3 8
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LAN_D<9>	3 8
LAN_D<10>	3 8
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LAN_D<12>	3 8
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LAN_D<16>	3 8
LAN_D<17>	3 8
LAN_D<18>	3 8
LAN_D<19>	3 8
LAN_D<20>	3 8
LAN_D<21>	3 8
LAN_D<22>	3 8

Signal Page Ref fpga4u_c

Ref Des	Pages
LAN_D<23>	3 8
LAN_D<24>	3 8
LAN_D<25>	3 8
LAN_D<26>	3 8
LAN_D<27>	3 8
LAN_D<28>	3 8
LAN_D<29>	3 8
LAN_D<30>	3 8
LAN_D<31>	3 8
LAN_DATACS*	3 8
LAN_INT	3 8
LAN_IOR*	3 8
LAN_IOW*	3 8
LAN_LDEV*	3 8
LAN_RBias	8
LAN_RESET	3 8
LAN_X25_Out	8
LED<0>	11 5 6
LED<1>	11 5 6
LED<2>	11 5 6
LED<3>	11 5 6
LED<4>	11 5 6
LED<5>	11 5 6
LED<6>	11 5 6
LED<7>	11 5 6
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LED<12>	11 5 6
LED<13>	11 5 6
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LED<16>	11 5 6
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LED<34>	11 2 5
LED<35>	11 2 5
LED<36>	11 2 5
LED<37>	11 2 5
LED<38>	11 2 5
LED<39>	11 2 5
LED<40>	11 2 5

Ref Des	Pages
LED<41>	11 2 5
LED<42>	11 2 5
LED<43>	11 2 5
LED<44>	11 2 5
LED<45>	11 2 5
LED<46>	11 2 5
LED<47>	11 2 5
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LED<51>	11 2 5
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LED<69>	11 5 6
LED<70>	11 5 6
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LED<74>	11 5 6
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LED<78>	11 5 6
LED<79>	11 5 6
LED<80>	11 5 6
LED<81>	11 5 6
LED<82>	11 5 6
LED<83>	11 5 6
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LED<87>	11 5 6
LED<88>	11 5 6
LED<89>	11 5 6
LED<90>	11 5 6
LED<91>	11 5 6
LED<92>	11 5 6
LED<93>	11 5 6
LED<94>	11 5 6
LED<95>	11 5 6
LED_Button<0>	10 7
LED_Button<1>	10 7
LED_Button<2>	10 7

Signal Page Ref fpga4u_c

Ref Des	Pages
LED_Button<3>	10 7
LED_Lnk*	8 8
LED_Rx*	8 8
MR_FX2*	4 5
nCE	2
nCONFIG	2 5
nCONFIG_A*	5
nCSO	2 2
nSTATUS	6
PowerExtConnected	12 4
RD_m	8
RD_p	8
scl	4
sda	4
SDRAM_A<0>	7 9
SDRAM_A<1>	7 9
SDRAM_A<2>	7 9
SDRAM_A<3>	7 9
SDRAM_A<4>	7 9
SDRAM_A<5>	7 9
SDRAM_A<6>	7 9
SDRAM_A<7>	7 9
SDRAM_A<8>	7 9
SDRAM_A<9>	7 9
SDRAM_A<10>	7 9
SDRAM_A<11>	7 9
SDRAM_BA<0>	7 9
SDRAM_BA<1>	7 9
SDRAM_CAS*	7 9
SDRAM_CKE	7 9
SDRAM_CLK	2 9
SDRAM_CS*	7 9
SDRAM_D<0>	7 9
SDRAM_D<1>	7 9
SDRAM_D<2>	7 9
SDRAM_D<3>	7 9
SDRAM_D<4>	7 9
SDRAM_D<5>	7 9
SDRAM_D<6>	7 9
SDRAM_D<7>	7 9
SDRAM_D<8>	7 9
SDRAM_D<9>	7 9
SDRAM_D<10>	7 9
SDRAM_D<11>	7 9
SDRAM_D<12>	7 9
SDRAM_D<13>	7 9
SDRAM_D<14>	7 9
SDRAM_D<15>	7 9
SDRAM_D<16>	7 9
SDRAM_D<17>	7 9
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SDRAM_D<19>	7 9
SDRAM_D<20>	7 9
SDRAM_D<21>	7 9
SDRAM_D<22>	7 9
SDRAM_D<23>	7 9
SDRAM_D<24>	7 9
SDRAM_D<25>	7 9

Ref Des	Pages
SDRAM_D<26>	7 9
SDRAM_D<27>	7 9
SDRAM_D<28>	7 9
SDRAM_D<29>	7 9
SDRAM_D<30>	7 9
SDRAM_D<31>	7 9
SDRAM_DQM<0>	7 9
SDRAM_DQM<1>	7 9
SDRAM_DQM<2>	7 9
SDRAM_DQM<3>	7 9
SDRAM_RAS*	7 9
SDRAM_WE*	7 9
SWITCH0<0>	10 3 5
SWITCH0<1>	10 3 5
SWITCH0<2>	10 3 5
SWITCH0<3>	10 3 5
SWITCH0<4>	10 3 5
SWITCH0<5>	10 3 5
SWITCH0<6>	10 3 5
SWITCH0<7>	10 3 5
SWITCH1<0>	10 3 5
SWITCH1<1>	10 3 5
SWITCH1<2>	10 3 5
SWITCH1<3>	10 3 5
SWITCH1<4>	10 3 5
SWITCH1<5>	10 3 5
SWITCH1<6>	10 3 5
SWITCH1<7>	10 3 5
TCK	2 2 4
TDI	2 2 4
TDO	2 2 4
TD_m	8
TD_p	8
TMS	2 2 4
VCC_Ext	12
VCC_USB	12 4 4 4
VDDA	8 8
Total Signals count 327	

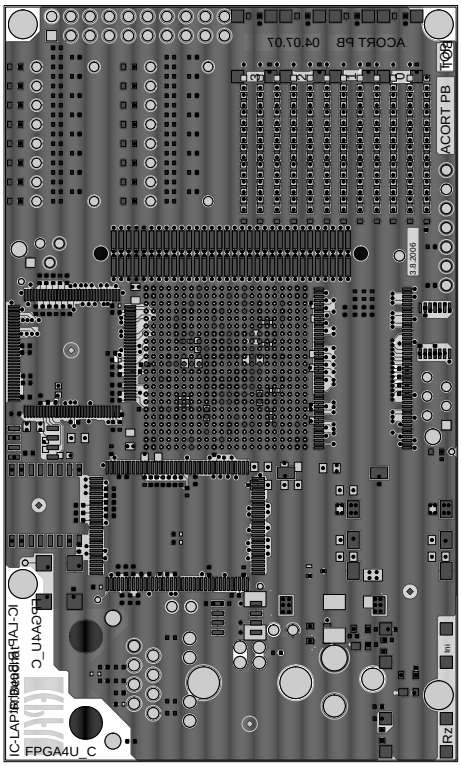
Vias 0.15mm must be filled and covered by solermask

Pad soldermask is set to same as copper pad size.
It must be extended in order to suit mask technology
but not more than 0.080 mm.

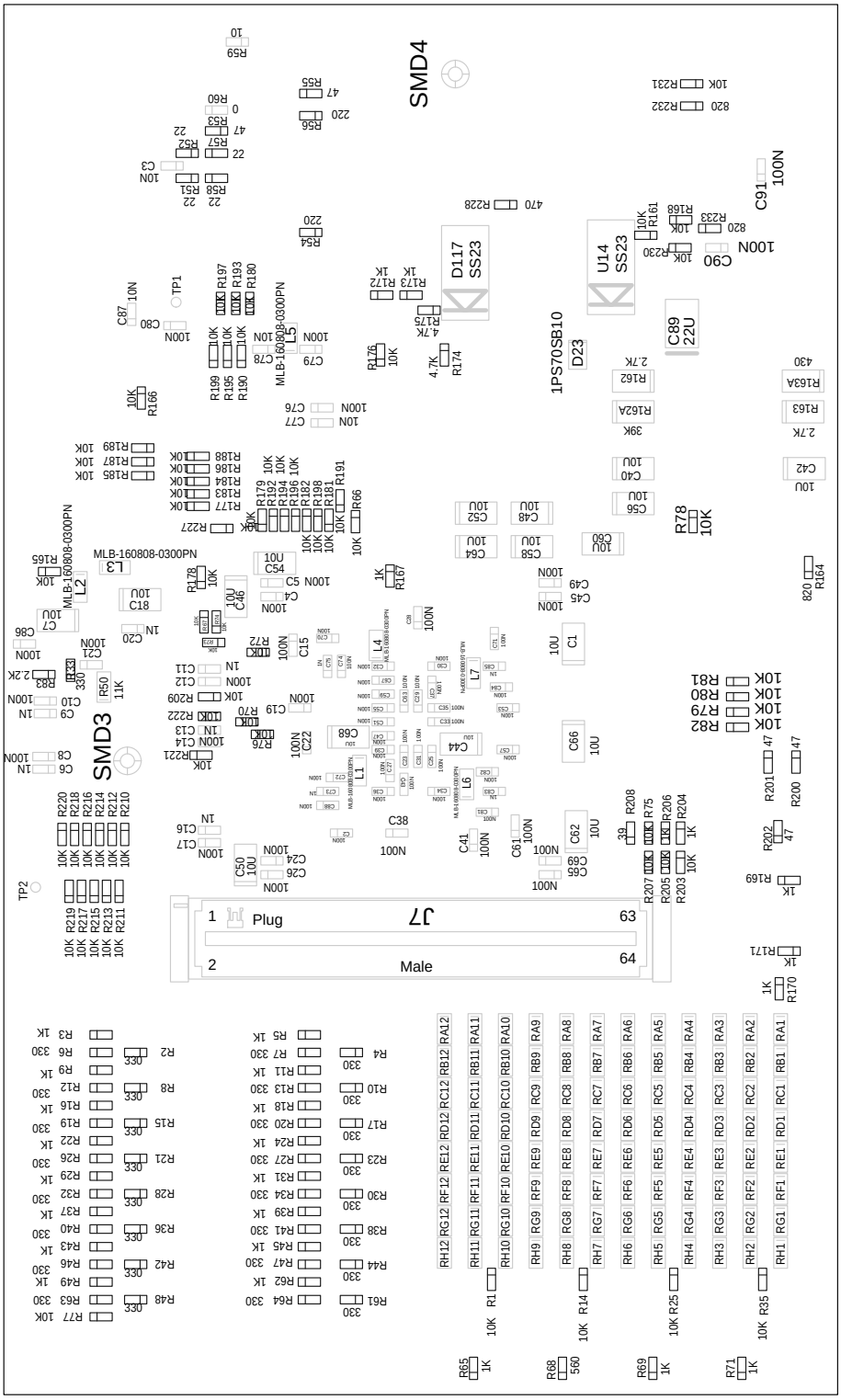
DRILL CHART

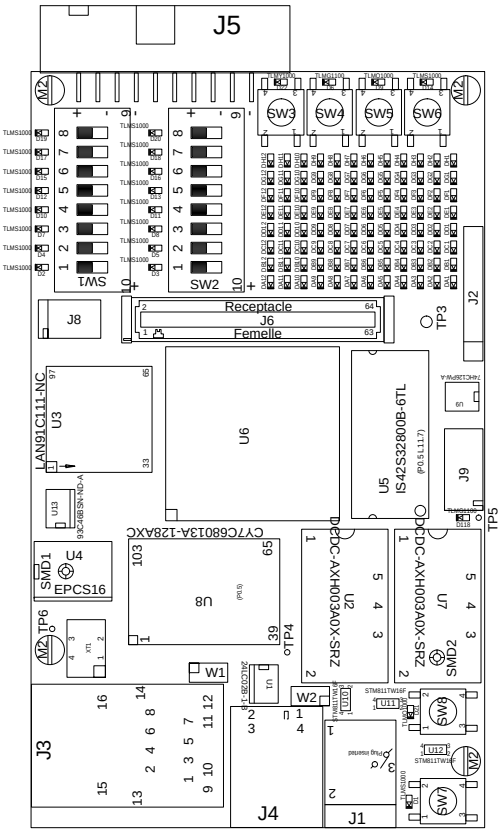
FIGURE	SIZE	PLATED	QTY
·	0.15	PLATED	1209
▪	0.508	PLATED	5
●	0.787	PLATED	30
■	0.889	PLATED	40
▲	1.016	PLATED	8
■	1.499	PLATED	2
■	1.7	PLATED	2
●	2.2	PLATED	6
●	2.5	PLATED	2
■	3.0	PLATED	1
●	1.4	NOT PLATED	2
⬢	3.5	NOT PLATED	2

TITRE:FPGA4U_C	LABORATOIRE:IC-LAP	DATE:04.07.07
	ENGINEER:R.Beuchat	EPFL-ACORT-PB

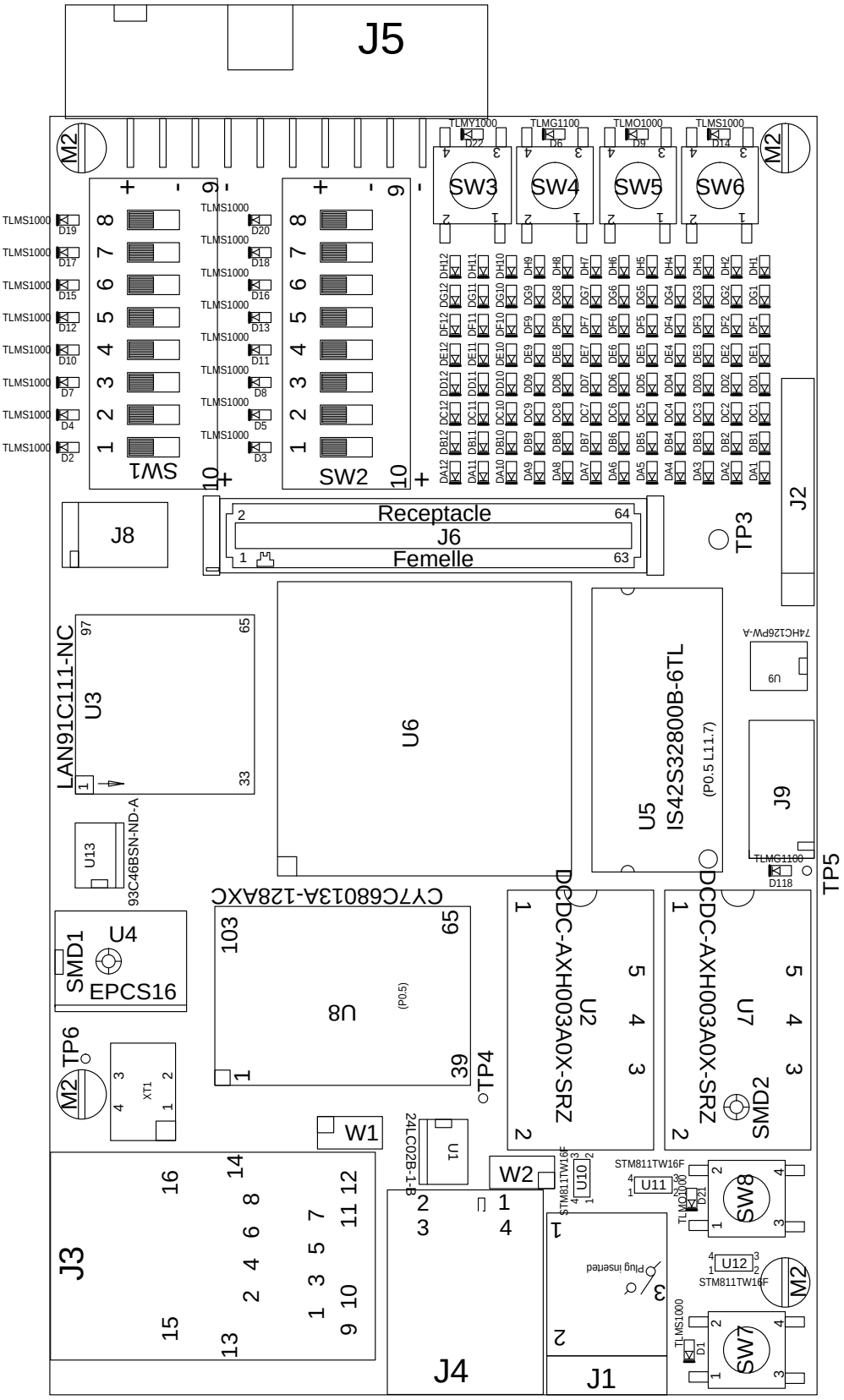


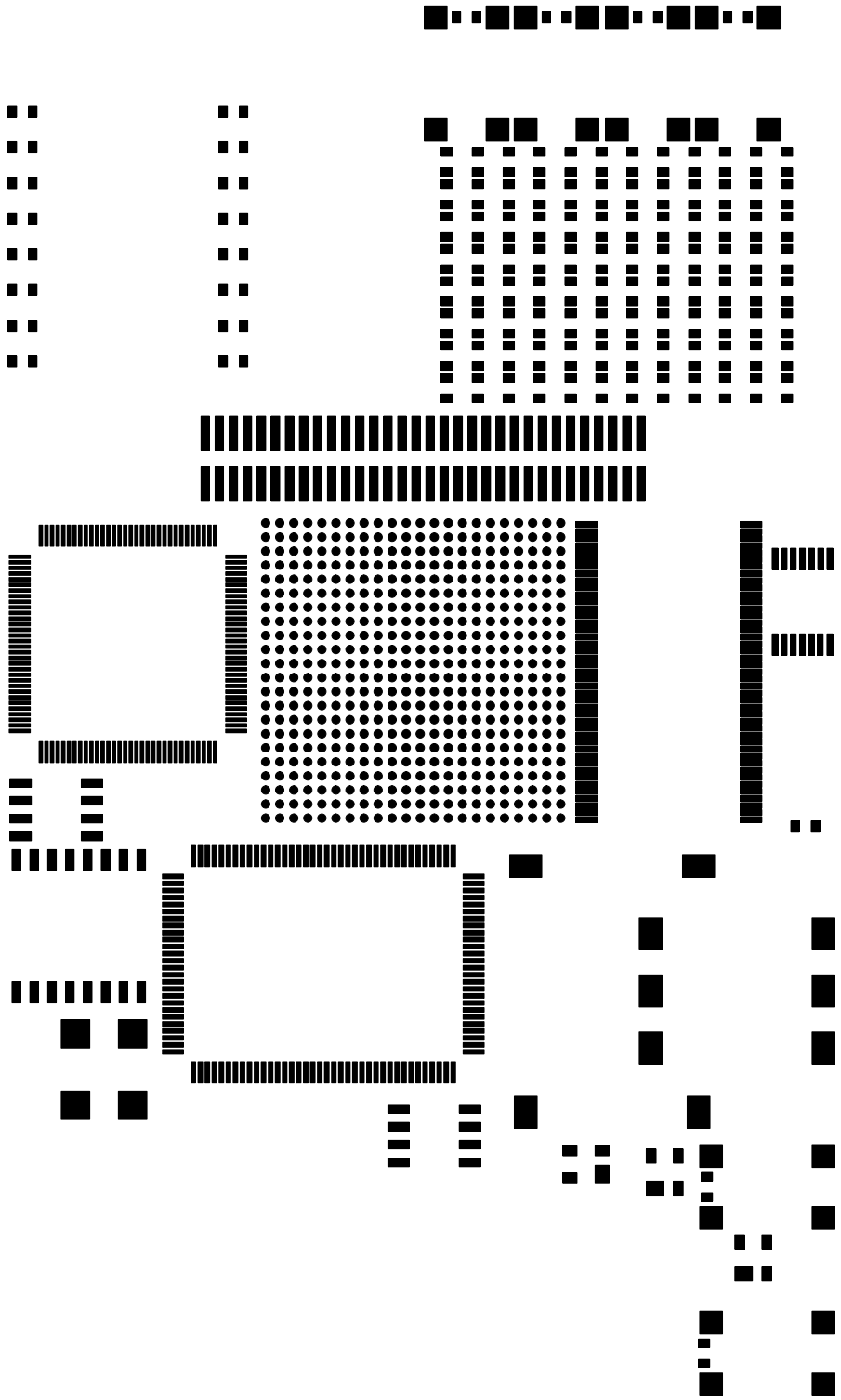
TITRE:FPGA4U_C	LABORATOIRE:IC-LAP	DATE:04.07.07
	ENGINEER:R.Beuchat	EPFL-ACORT-PB

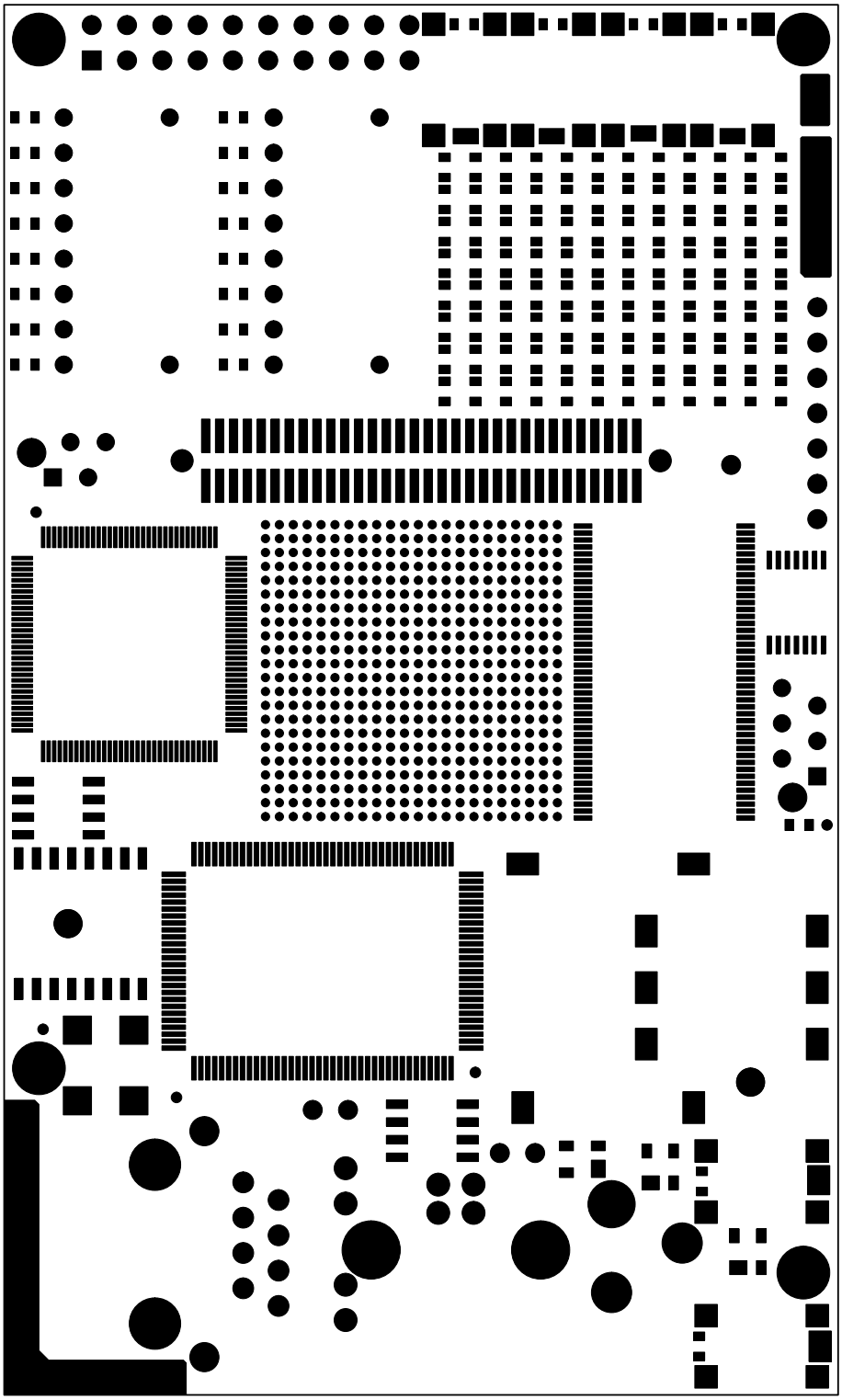

SMD4
SMD3
J7
Plug
Male
1
2
63
64
U14
SS23
D117
SS23
1PS70SB10
D23
MLB-160808-0300PN
L2
L3
L4
L5
L6
L7
L11
TP1
TP2
C89
22U
C91
100N
C90
100N
R78
10K
R81
R82
R79
R80
10K
10K
10K
10K
R1
R14
R25
R35
10K
10K
10K
10K
R65
R68
R69
R71
1K
560
1K
1K

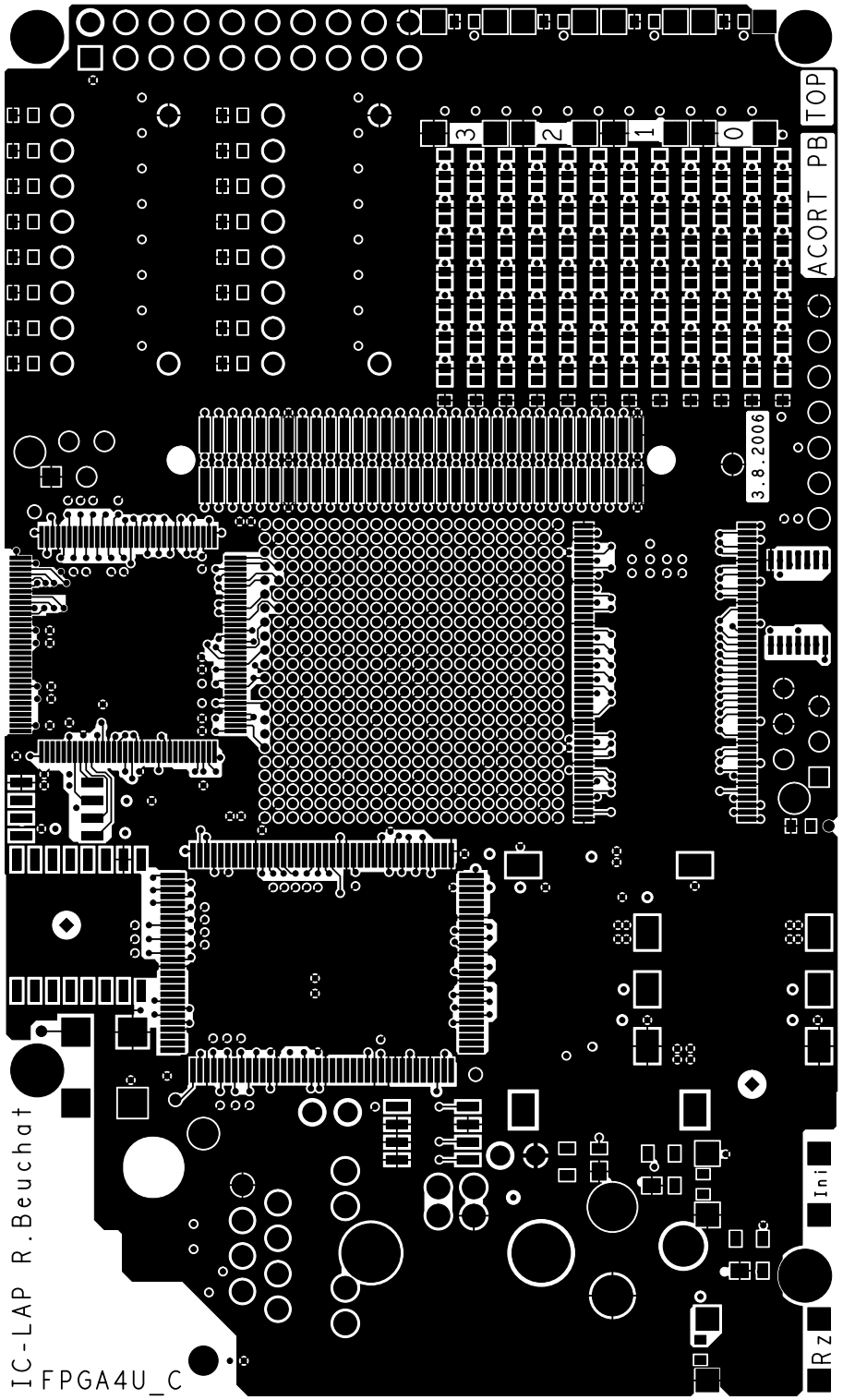


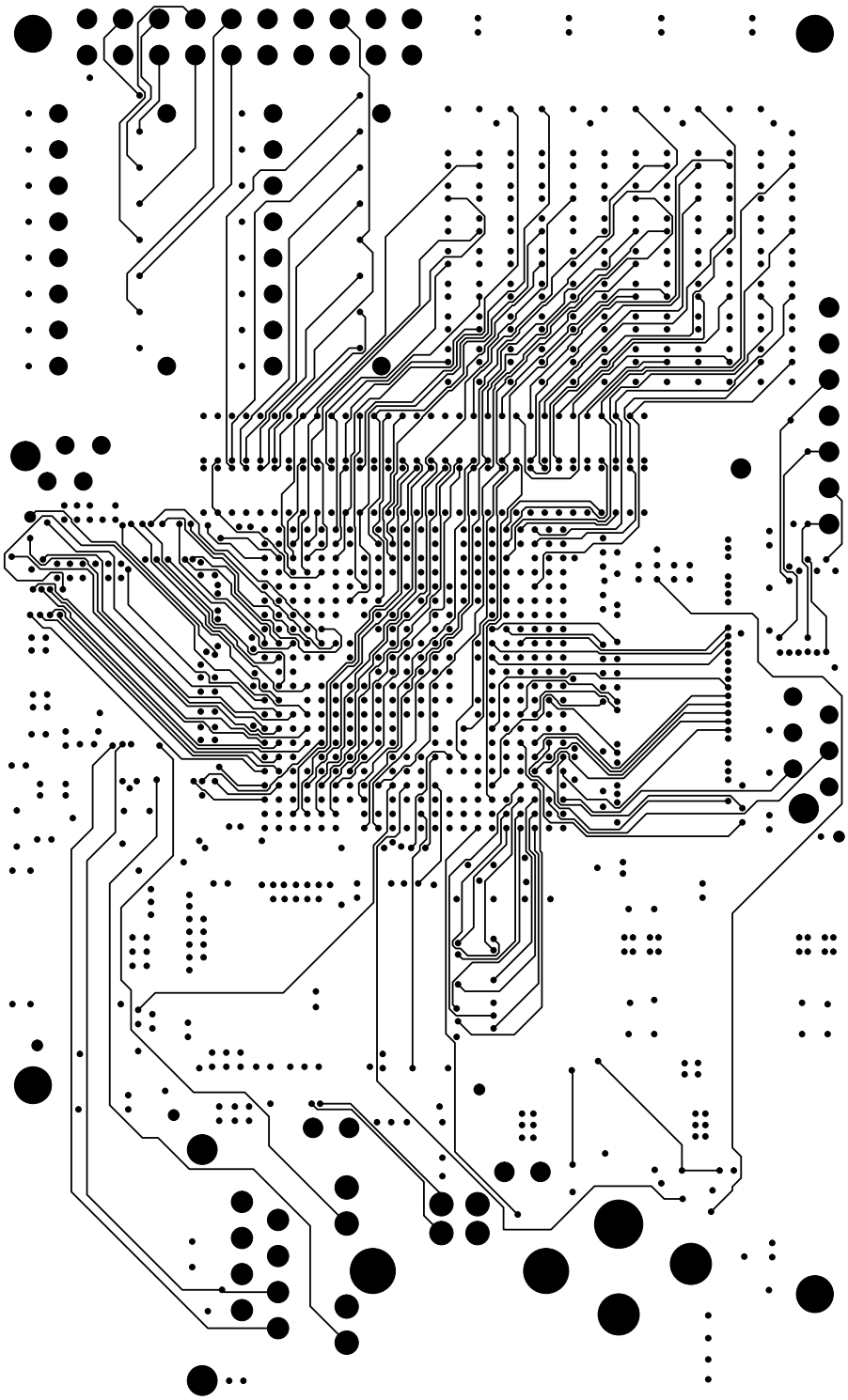
TITRE:FPGA4U_C	LABORATOIRE:IC-LAP	DATE:04.07.07
	ENGINEER:R.Beuchat	EPFL-ACORT-PB

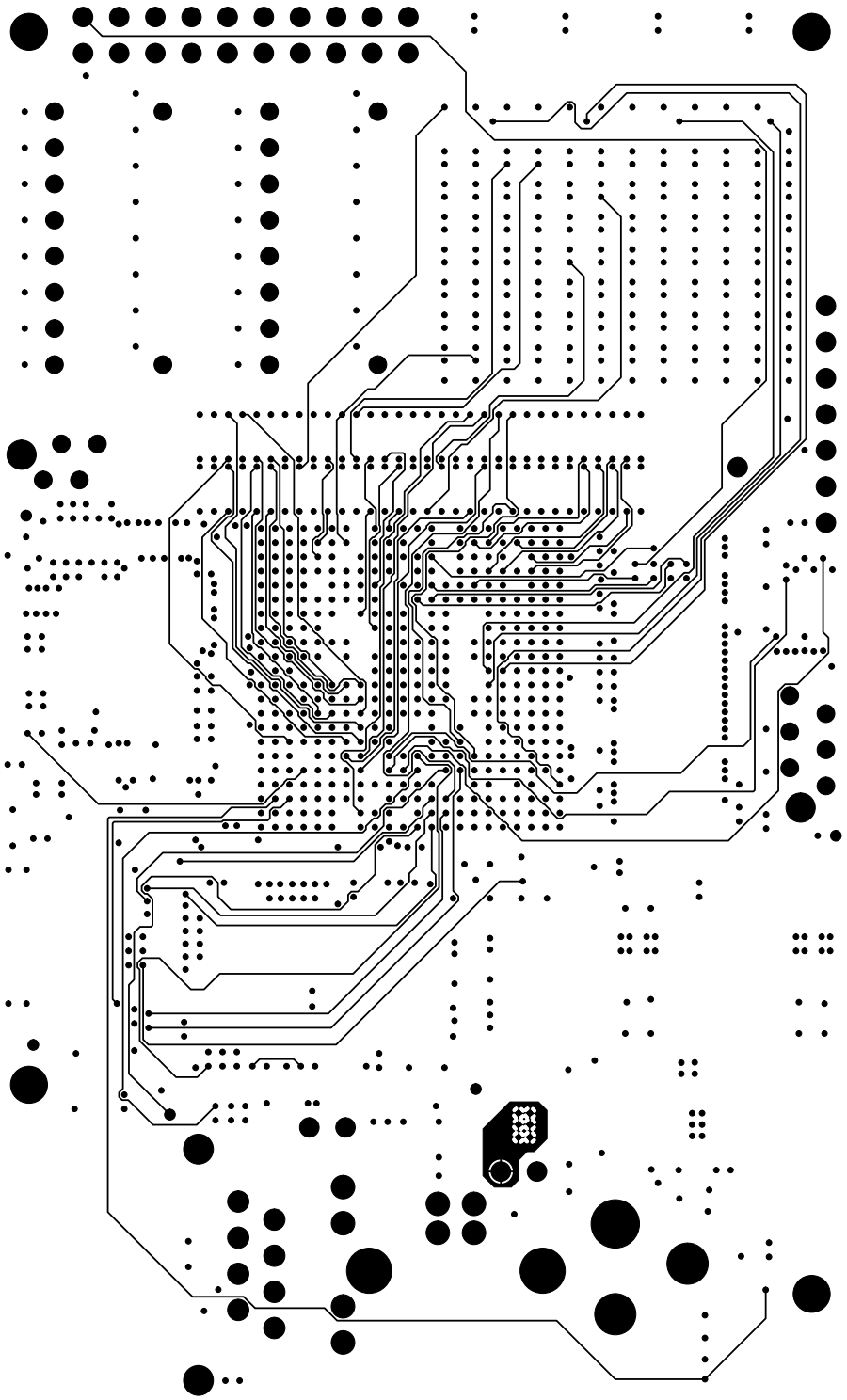

J5
M2
TLMY1000
TLMG1100
TLMO1000
TLMS1000
SW3
SW4
SW5
SW6
SW1
SW2
J8
Receptacle
J6
Femelle
J2
TP3
LAN91C111-NC
U3
U6
U5
IS42S32800B-6TL
(P0.5 L11.7)
74HC126PW-A
U9
J9
TLMG1100
D118
TP5
93C46BSN-ND-A
U13
CY7C68013A-128AXC
U8
(P0.5)
SMD1
U4
EPCS16
TP6
XT1
TP4
DCDC-AXH003A0X-SRZ
U2
U7
SMD2
W1
W2
24LC02BT-I/SN
U1
STM811TW16F
U10
U11
U12
SW8
SW7
J3
J4
J1
Plug inserted

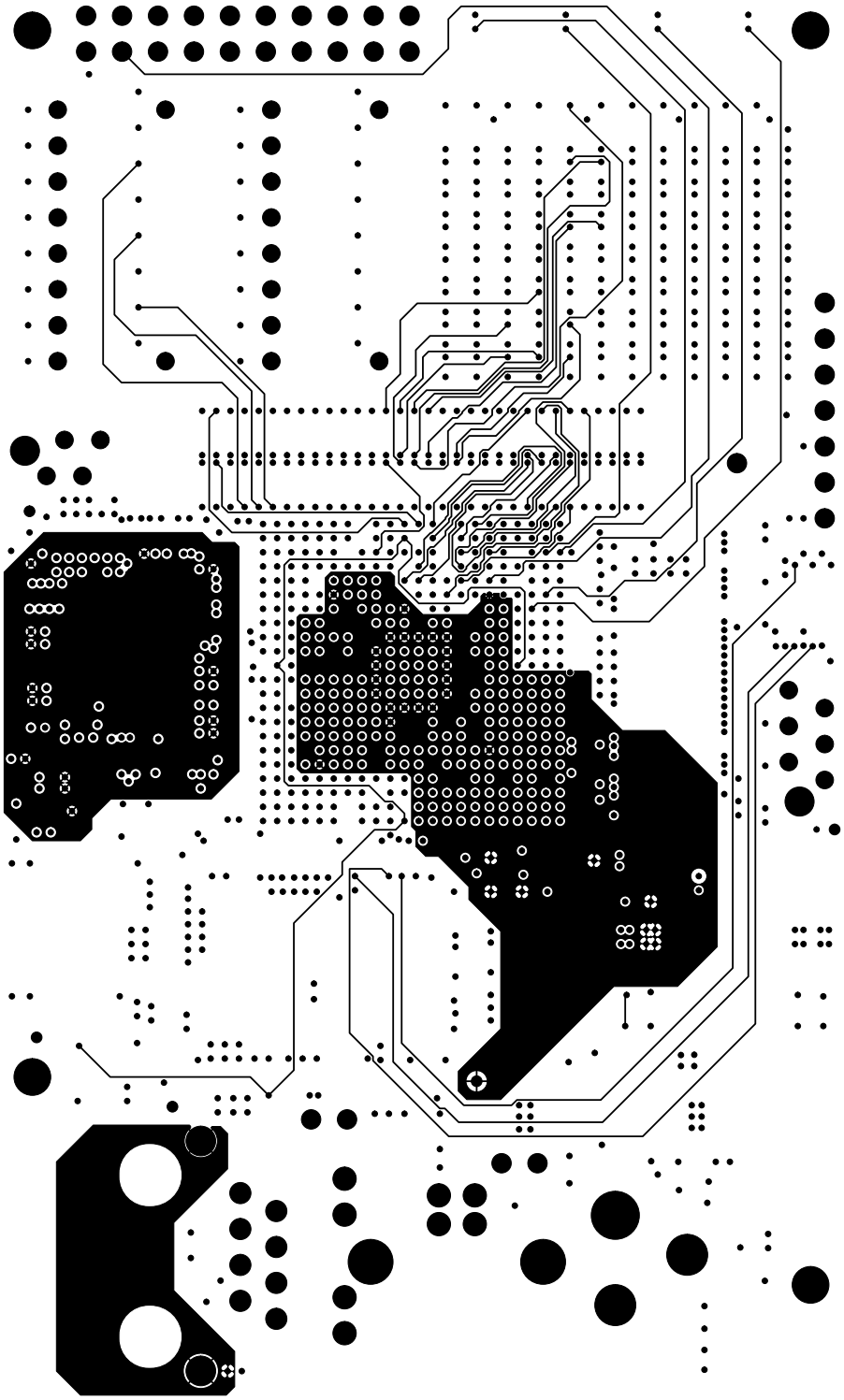


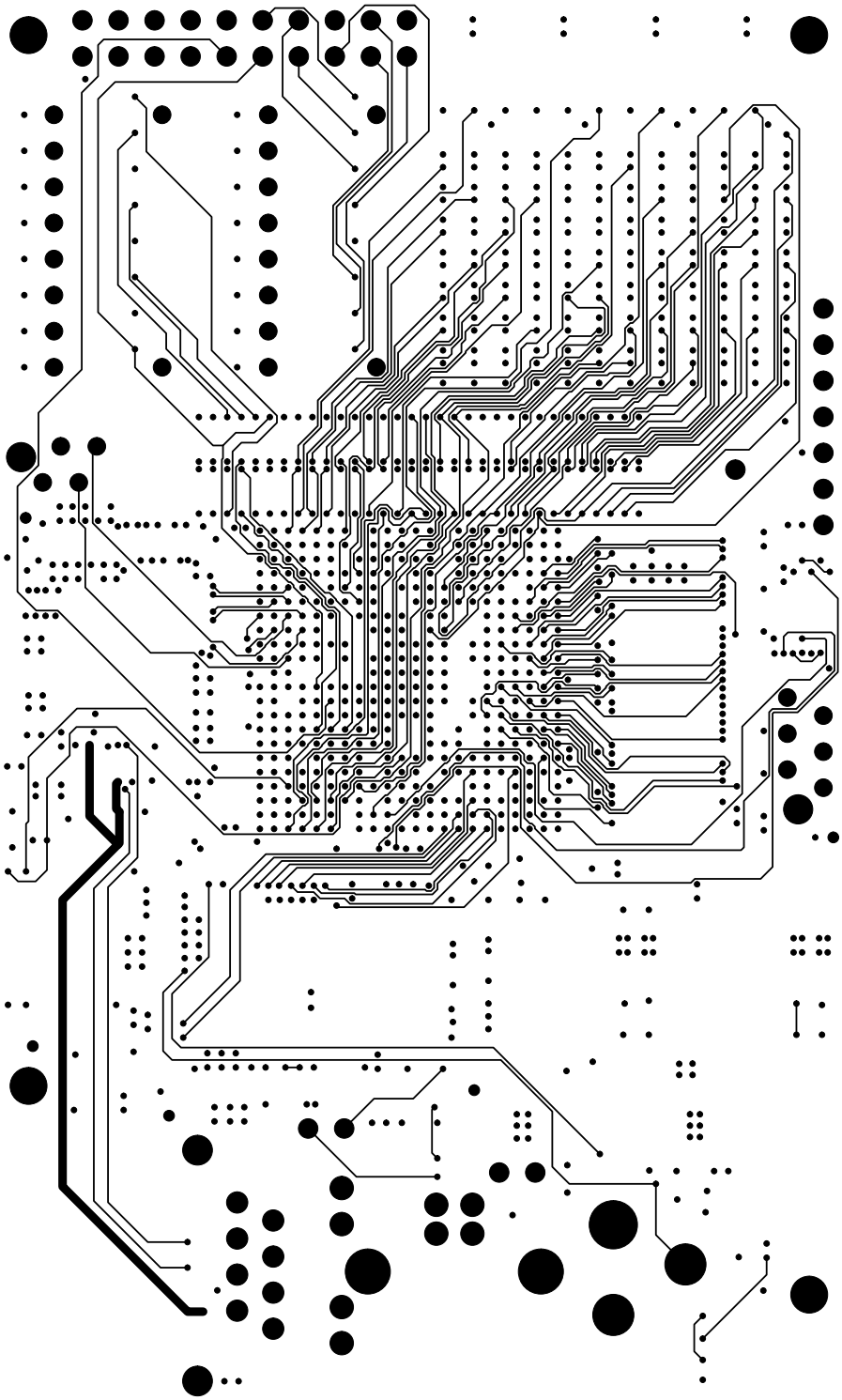


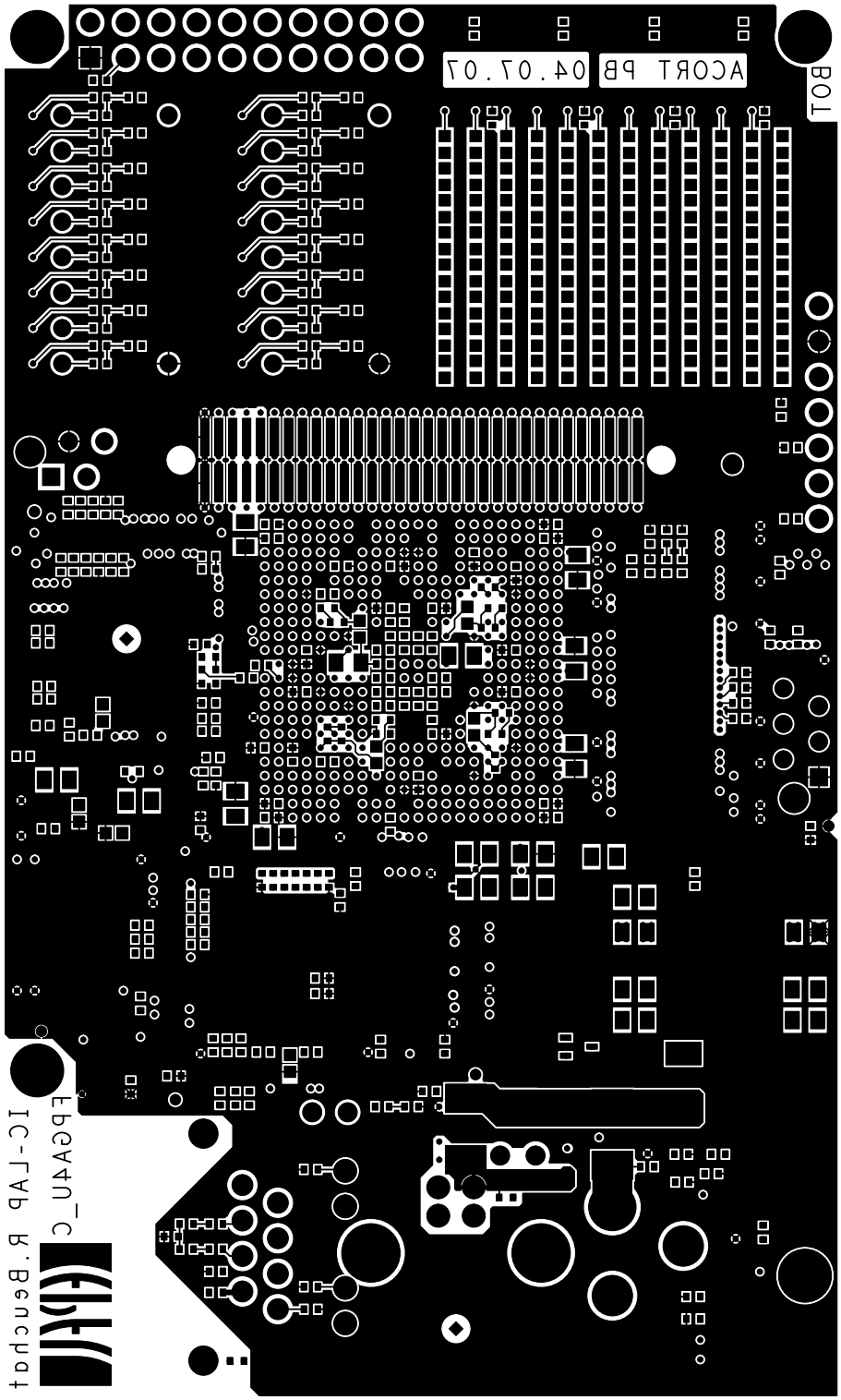

TOP
ACORT PB
3
2
1
0
3.8.2006
IC-LAP R.Beuchat
FPGA4U_C
Ini
Rz

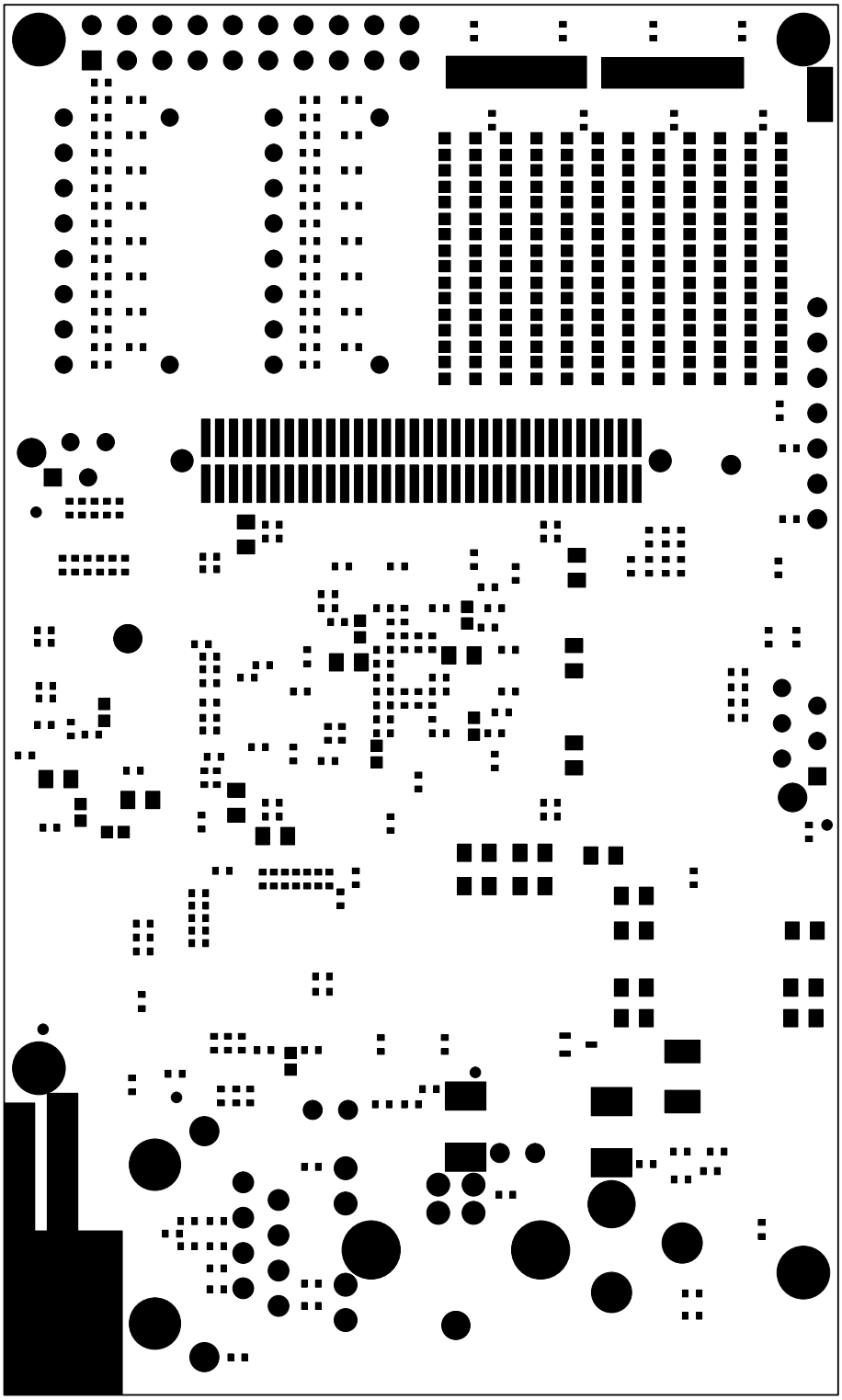


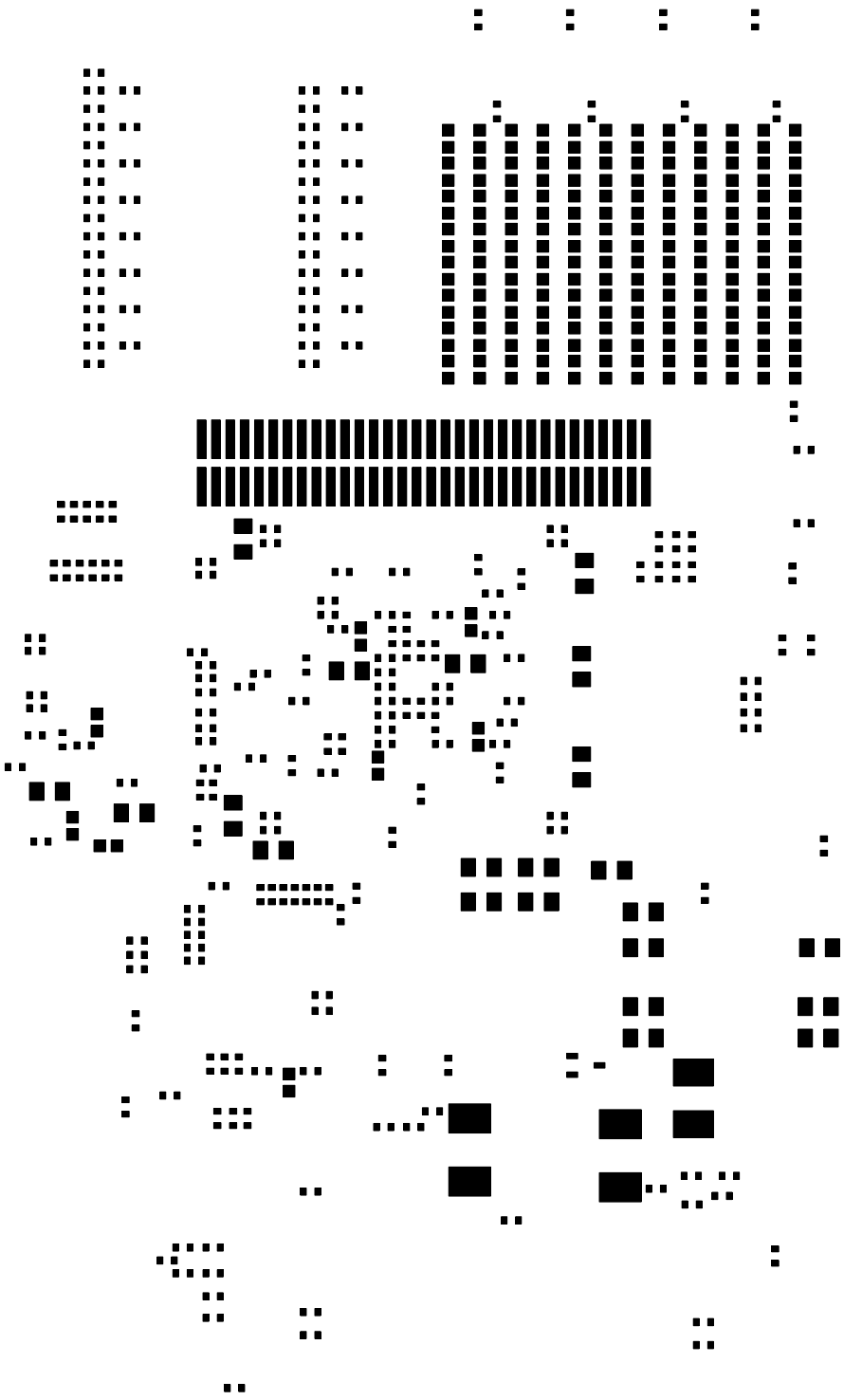


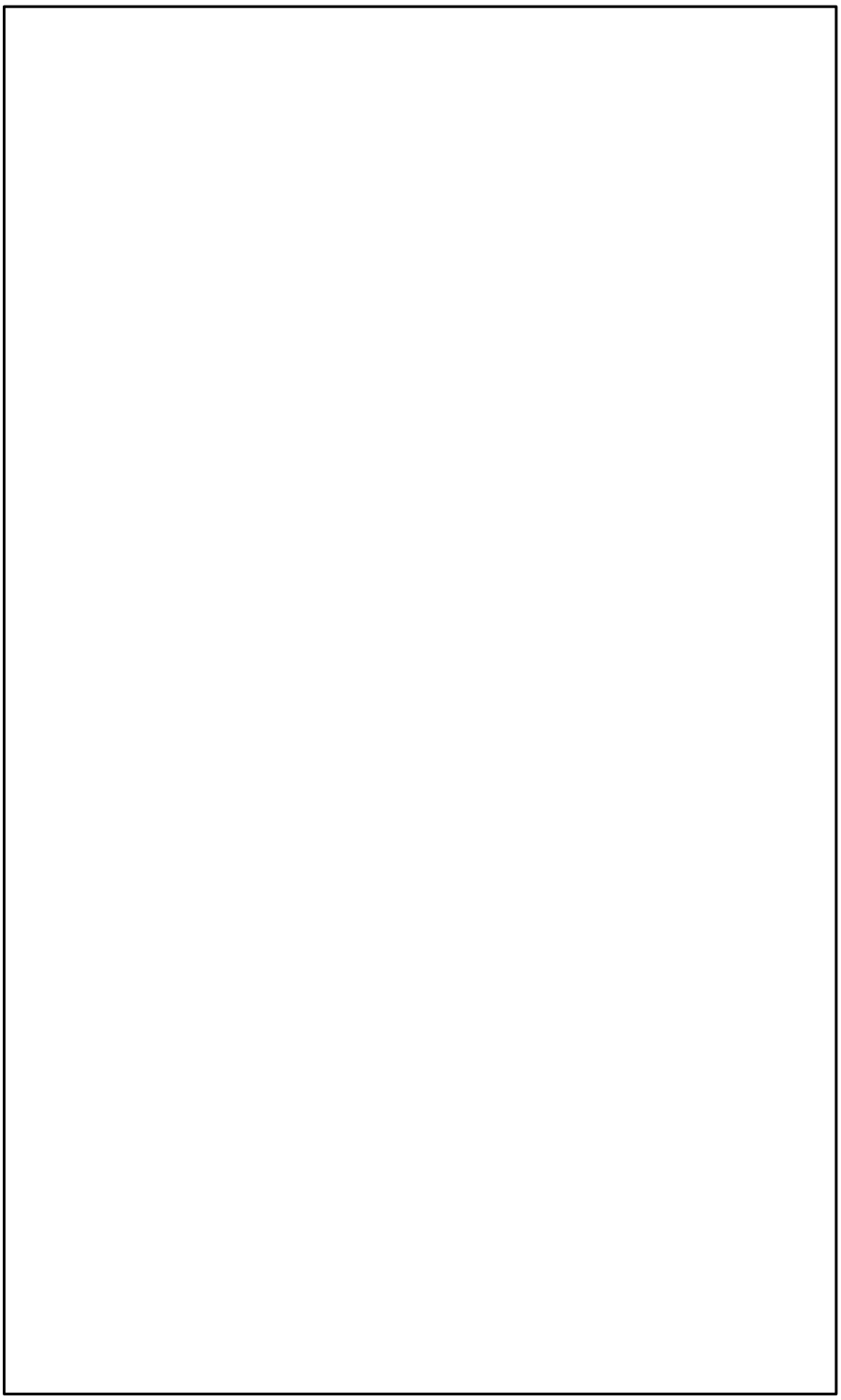





ACORT PB 04.07.07
BOT
IC-LAP R.Beuchat
FPGA4U_C







Component Report FPGA4U_C

fpga4u_gloss — Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
C1	0805	10U	0805_G	46.000	19.000	270.000	YES	
C2	0402	100N	0402	59.600	35.700	0.000	YES	
C3	0402	10N	0402	11.600	47.900	180.000	YES	
C4	0402	100N	0402	42.600	40.700	180.000	YES	
C5	0402	100N	0402	41.600	40.700	0.000	YES	
C6	0402	1N	0402	55.000	57.100	180.000	YES	
C7	0805	10U	0805_G	44.300	56.100	180.000	YES	
C8	0402	100N	0402	54.100	57.100	180.000	YES	
C9	0402	1N	0402	51.000	57.000	180.000	YES	
C10	0402	100N	0402	50.100	57.000	180.000	YES	
C11	0402	1N	0402	47.800	45.200	0.000	YES	
C12	0402	100N	0402	48.700	45.200	0.000	YES	
C13	0402	1N	0402	52.200	45.200	0.000	YES	
C14	0402	100N	0402	53.100	45.200	0.000	YES	
C15	0402	100N	0402	46.100	39.200	90.000	YES	
C16	0402	1N	0402	59.400	45.200	0.000	YES	
C17	0402	100N	0402	60.300	45.200	0.000	YES	
C18	0805	10U	0805_G	42.800	50.200	0.000	YES	
C19	0402	100N	0402	50.600	38.700	180.000	YES	
C20	0402	1N	0402	44.900	50.700	180.000	YES	
C21	0402	100N	0402	47.500	53.700	0.000	YES	
C22	0402	100N	0402	53.100	38.200	270.000	YES	
C23	0402	100N	0402	54.100	31.200	90.000	YES	
C24	0402	100N	0402	61.600	40.700	180.000	YES	
C25	0402	100N	0402	54.100	29.200	90.000	YES	
C26	0402	100N	0402	62.600	40.700	0.000	YES	
C27	0402	100N	0402	55.100	32.200	270.000	YES	
C28	0402	100N	0402	44.100	30.200	270.000	YES	
C29	0402	100N	0402	50.100	30.200	270.000	YES	
C30	0402	100N	0402	47.600	28.700	0.000	YES	
C31	0402	100N	0402	54.100	30.200	90.000	YES	
C32	0402	100N	0402	47.600	32.700	180.000	YES	
C33	0402	100N	0402	51.600	28.700	0.000	YES	
C34	0402	100N	0402	56.600	28.700	0.000	YES	
C35	0402	100N	0402	50.600	28.700	0.000	YES	
C36	0402	100N	0402	56.600	32.700	180.000	YES	
C37	0402	100N	0402	49.100	29.200	90.000	YES	
C38	0402	100N	0402	59.600	31.700	0.000	YES	
C39	0402	100N	0402	53.600	32.700	180.000	YES	
C40	0805	10U	0805_G	33.400	14.700	0.000	YES	
C41	0402	100N	0402	60.100	26.200	270.000	YES	
C42	0805	10U	0805_G	33.400	2.400	0.000	YES	
C43	0402	100N	0402	56.100	31.200	90.000	YES	
C44	0805	10U	0805_G	53.200	27.100	180.000	YES	
C45	0402	100N	0402	42.600	20.700	0.000	YES	
C46	0805	10U	0805_G	42.600	43.300	90.000	YES	
C47	0402	100N	0402	52.600	32.700	180.000	YES	
C48	0805	10U	0805_G	36.600	22.000	180.000	YES	
C49	0402	100N	0402	41.600	20.700	180.000	YES	
C50	0805	10U	0805_G	61.900	42.600	270.000	YES	
C51	0402	100N	0402	51.600	32.700	180.000	YES	
C52	0805	10U	0805_G	36.600	26.000	0.000	YES	
C53	0402	100N	0402	50.600	23.700	180.000	YES	
C54	0805	10U	0805_G	40.200	40.500	0.000	YES	
C55	0402	100N	0402	50.600	32.700	180.000	YES	
C56	0805	10U	0805_G	35.900	14.700	0.000	YES	
C57	0402	100N	0402	53.600	23.700	180.000	YES	
C58	0805	10U	0805_G	39.000	22.000	0.000	YES	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
C59	0402	100N	0402	49.600	32.700	0.000	YES	
C60	0805	10U	0805_G	38.800	16.900	180.000	YES	
C61	0402	100N	0402	59.100	23.200	270.000	YES	
C62	0805	10U	0805_G	59.500	18.800	270.000	YES	
C63	0402	100N	0402	50.100	31.200	270.000	YES	
C64	0805	10U	0805_G	39.000	26.000	0.000	YES	
C65	0402	100N	0402	62.600	20.700	180.000	YES	
C66	0805	10U	0805_G	53.000	19.000	90.000	YES	
C67	0402	100N	0402	48.600	32.700	0.000	YES	
C68	0805	10U	0805_G	52.700	35.200	0.000	YES	
C69	0402	100N	0402	61.600	20.700	0.000	YES	
C70	0402	100N	0402	45.600	36.700	180.000	YES	
C71	0402	100N	0402	45.600	24.700	90.000	YES	
C72	0402	100N	0402	55.600	36.000	0.000	YES	
C73	0402	1N	0402	56.600	36.700	0.000	YES	
C74	0402	100N	0402	47.600	35.700	270.000	YES	
C75	0402	1N	0402	47.600	36.700	270.000	YES	
C76	0402	100N	0402	29.000	37.100	0.000	YES	
C77	0402	10N	0402	30.100	37.100	0.000	YES	
C78	0402	10N	0402	24.800	41.300	180.000	YES	
C79	0402	100N	0402	24.800	37.900	180.000	YES	
C80	0402	100N	0402	23.100	47.700	0.000	YES	
C81	0402	100N	0402	58.100	25.200	180.000	YES	
C82	0402	100N	0402	55.200	25.200	180.000	YES	
C83	0402	1N	0402	56.600	24.700	180.000	YES	
C84	0402	100N	0402	49.100	24.200	180.000	YES	
C85	0402	1N	0402	47.600	24.700	180.000	YES	
C86	0402	100N	0402	46.000	58.500	0.000	YES	
C87	0402	10N	0402	22.300	50.800	270.000	YES	
C88	0402	100N	0402	57.600	36.700	0.000	YES	
C89	1210	22U	1210	22.900	11.200	270.000	YES	
C90	0402	100N	0402	17.500	8.700	180.000	YES	
C91	0402	100N	0402	11.900	5.500	270.000	YES	
D1	TLMS1000	TLMS1000	SMDLED_0603	3.500	10.000	90.000	NO	
D2	TLMS1000	TLMS1000	SMDLED_0603	74.110	58.500	0.000	NO	
D3	TLMS1000	TLMS1000	SMDLED_0603	74.110	43.500	0.000	NO	
D4	TLMS1000	TLMS1000	SMDLED_0603	76.650	58.500	0.000	NO	
D5	TLMS1000	TLMS1000	SMDLED_0603	76.650	43.500	0.000	NO	
D6	TLMG1100	TLMG1100	SMDLED_0603	98.600	20.500	0.000	NO	
D7	TLMS1000	TLMS1000	SMDLED_0603	79.190	58.500	0.000	NO	
D8	TLMS1000	TLMS1000	SMDLED_0603	79.190	43.500	0.000	NO	
D9	TLMO1000	TLMO1000	SMDLED_0603	98.600	14.000	0.000	NO	
D10	TLMS1000	TLMS1000	SMDLED_0603	81.730	58.500	0.000	NO	
D11	TLMS1000	TLMS1000	SMDLED_0603	81.730	43.500	0.000	NO	
D12	TLMS1000	TLMS1000	SMDLED_0603	84.270	58.500	0.000	NO	
D13	TLMS1000	TLMS1000	SMDLED_0603	84.270	43.500	0.000	NO	
D14	TLMS1000	TLMS1000	SMDLED_0603	98.600	7.600	0.000	NO	
D15	TLMS1000	TLMS1000	SMDLED_0603	86.810	58.500	0.000	NO	
D16	TLMS1000	TLMS1000	SMDLED_0603	86.810	43.500	0.000	NO	
D17	TLMS1000	TLMS1000	SMDLED_0603	89.350	58.500	0.000	NO	
D18	TLMS1000	TLMS1000	SMDLED_0603	89.350	43.500	0.000	NO	
D19	TLMS1000	TLMS1000	SMDLED_0603	91.890	58.500	0.000	NO	
D20	TLMS1000	TLMS1000	SMDLED_0603	91.890	43.500	0.000	NO	
D21	TLMO1000	TLMO1000	SMDLED_0603	15.350	9.800	90.000	NO	
D22	TLMY1000	TLMY1000	SMDLED_0603	98.600	26.900	0.000	NO	
D23	1PS70SB10	1PS70SB10	SC70_3	25.200	18.700	90.000	YES	
D117	SS23	SS23	DO214AA	19.300	26.800	270.000	YES	
D118	TLMG1100	TLMG1100	SMDLED_0603	41.000	2.800	0.000	NO	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
DA1	TLMS1000	TLMS1000	SMDLED_0603	72.200	4.100	90.000	NO	
DA2	TLMS1000	TLMS1000	SMDLED_0603	72.200	6.300	90.000	NO	
DA3	TLMS1000	TLMS1000	SMDLED_0603	72.200	8.500	90.000	NO	
DA4	TLMS1000	TLMS1000	SMDLED_0603	72.200	10.700	90.000	NO	
DA5	TLMS1000	TLMS1000	SMDLED_0603	72.200	12.900	90.000	NO	
DA6	TLMS1000	TLMS1000	SMDLED_0603	72.200	15.100	90.000	NO	
DA7	TLMS1000	TLMS1000	SMDLED_0603	72.200	17.300	90.000	NO	
DA8	TLMS1000	TLMS1000	SMDLED_0603	72.200	19.500	90.000	NO	
DA9	TLMS1000	TLMS1000	SMDLED_0603	72.200	21.700	90.000	NO	
DA10	TLMS1000	TLMS1000	SMDLED_0603	72.200	23.900	90.000	NO	
DA11	TLMS1000	TLMS1000	SMDLED_0603	72.200	26.100	90.000	NO	
DA12	TLMS1000	TLMS1000	SMDLED_0603	72.200	28.300	90.000	NO	
DB1	TLMO1000	TLMO1000	SMDLED_0603	74.500	4.100	90.000	NO	
DB2	TLMO1000	TLMO1000	SMDLED_0603	74.500	6.300	90.000	NO	
DB3	TLMO1000	TLMO1000	SMDLED_0603	74.500	8.500	90.000	NO	
DB4	TLMO1000	TLMO1000	SMDLED_0603	74.500	10.700	90.000	NO	
DB5	TLMO1000	TLMO1000	SMDLED_0603	74.500	12.900	90.000	NO	
DB6	TLMO1000	TLMO1000	SMDLED_0603	74.500	15.100	90.000	NO	
DB7	TLMO1000	TLMO1000	SMDLED_0603	74.500	17.300	90.000	NO	
DB8	TLMO1000	TLMO1000	SMDLED_0603	74.500	19.500	90.000	NO	
DB9	TLMO1000	TLMO1000	SMDLED_0603	74.500	21.700	90.000	NO	
DB10	TLMO1000	TLMO1000	SMDLED_0603	74.500	23.900	90.000	NO	
DB11	TLMO1000	TLMO1000	SMDLED_0603	74.500	26.100	90.000	NO	
DB12	TLMO1000	TLMO1000	SMDLED_0603	74.500	28.300	90.000	NO	
DC1	TLMG1100	TLMG1100	SMDLED_0603	76.800	4.100	90.000	NO	
DC2	TLMG1100	TLMG1100	SMDLED_0603	76.800	6.300	90.000	NO	
DC3	TLMG1100	TLMG1100	SMDLED_0603	76.800	8.500	90.000	NO	
DC4	TLMG1100	TLMG1100	SMDLED_0603	76.800	10.700	90.000	NO	
DC5	TLMG1100	TLMG1100	SMDLED_0603	76.800	12.900	90.000	NO	
DC6	TLMG1100	TLMG1100	SMDLED_0603	76.800	15.100	90.000	NO	
DC7	TLMG1100	TLMG1100	SMDLED_0603	76.800	17.300	90.000	NO	
DC8	TLMG1100	TLMG1100	SMDLED_0603	76.800	19.500	90.000	NO	
DC9	TLMG1100	TLMG1100	SMDLED_0603	76.800	21.700	90.000	NO	
DC10	TLMG1100	TLMG1100	SMDLED_0603	76.800	23.900	90.000	NO	
DC11	TLMG1100	TLMG1100	SMDLED_0603	76.800	26.100	90.000	NO	
DC12	TLMG1100	TLMG1100	SMDLED_0603	76.800	28.300	90.000	NO	
DD1	TLMY1000	TLMY1000	SMDLED_0603	79.100	4.100	90.000	NO	
DD2	TLMY1000	TLMY1000	SMDLED_0603	79.100	6.300	90.000	NO	
DD3	TLMY1000	TLMY1000	SMDLED_0603	79.100	8.500	90.000	NO	
DD4	TLMY1000	TLMY1000	SMDLED_0603	79.100	10.700	90.000	NO	
DD5	TLMY1000	TLMY1000	SMDLED_0603	79.100	12.900	90.000	NO	
DD6	TLMY1000	TLMY1000	SMDLED_0603	79.100	15.100	90.000	NO	
DD7	TLMY1000	TLMY1000	SMDLED_0603	79.100	17.300	90.000	NO	
DD8	TLMY1000	TLMY1000	SMDLED_0603	79.100	19.500	90.000	NO	
DD9	TLMY1000	TLMY1000	SMDLED_0603	79.100	21.700	90.000	NO	
DD10	TLMY1000	TLMY1000	SMDLED_0603	79.100	23.900	90.000	NO	
DD11	TLMY1000	TLMY1000	SMDLED_0603	79.100	26.100	90.000	NO	
DD12	TLMY1000	TLMY1000	SMDLED_0603	79.100	28.300	90.000	NO	
DE1	TLMY1000	TLMY1000	SMDLED_0603	81.400	4.100	90.000	NO	
DE2	TLMY1000	TLMY1000	SMDLED_0603	81.400	6.300	90.000	NO	
DE3	TLMY1000	TLMY1000	SMDLED_0603	81.400	8.500	90.000	NO	
DE4	TLMY1000	TLMY1000	SMDLED_0603	81.400	10.700	90.000	NO	
DE5	TLMY1000	TLMY1000	SMDLED_0603	81.400	12.900	90.000	NO	
DE6	TLMY1000	TLMY1000	SMDLED_0603	81.400	15.100	90.000	NO	
DE7	TLMY1000	TLMY1000	SMDLED_0603	81.400	17.300	90.000	NO	
DE8	TLMY1000	TLMY1000	SMDLED_0603	81.400	19.500	90.000	NO	
DE9	TLMY1000	TLMY1000	SMDLED_0603	81.400	21.700	90.000	NO	
DE10	TLMY1000	TLMY1000	SMDLED_0603	81.400	23.900	90.000	NO	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
DE11	TLMY1000	TLMY1000	SMDLED_0603	81.400	26.100	90.000	NO	
DE12	TLMY1000	TLMY1000	SMDLED_0603	81.400	28.300	90.000	NO	
DF1	TLMY1000	TLMY1000	SMDLED_0603	83.700	4.100	90.000	NO	
DF2	TLMY1000	TLMY1000	SMDLED_0603	83.700	6.300	90.000	NO	
DF3	TLMY1000	TLMY1000	SMDLED_0603	83.700	8.500	90.000	NO	
DF4	TLMY1000	TLMY1000	SMDLED_0603	83.700	10.700	90.000	NO	
DF5	TLMY1000	TLMY1000	SMDLED_0603	83.700	12.900	90.000	NO	
DF6	TLMY1000	TLMY1000	SMDLED_0603	83.700	15.100	90.000	NO	
DF7	TLMY1000	TLMY1000	SMDLED_0603	83.700	17.300	90.000	NO	
DF8	TLMY1000	TLMY1000	SMDLED_0603	83.700	19.500	90.000	NO	
DF9	TLMY1000	TLMY1000	SMDLED_0603	83.700	21.700	90.000	NO	
DF10	TLMY1000	TLMY1000	SMDLED_0603	83.700	23.900	90.000	NO	
DF11	TLMY1000	TLMY1000	SMDLED_0603	83.700	26.100	90.000	NO	
DF12	TLMY1000	TLMY1000	SMDLED_0603	83.700	28.300	90.000	NO	
DG1	TLMY1000	TLMY1000	SMDLED_0603	86.000	4.100	90.000	NO	
DG2	TLMY1000	TLMY1000	SMDLED_0603	86.000	6.300	90.000	NO	
DG3	TLMY1000	TLMY1000	SMDLED_0603	86.000	8.500	90.000	NO	
DG4	TLMY1000	TLMY1000	SMDLED_0603	86.000	10.700	90.000	NO	
DG5	TLMY1000	TLMY1000	SMDLED_0603	86.000	12.900	90.000	NO	
DG6	TLMY1000	TLMY1000	SMDLED_0603	86.000	15.100	90.000	NO	
DG7	TLMY1000	TLMY1000	SMDLED_0603	86.000	17.300	90.000	NO	
DG8	TLMY1000	TLMY1000	SMDLED_0603	86.000	19.500	90.000	NO	
DG9	TLMY1000	TLMY1000	SMDLED_0603	86.000	21.700	90.000	NO	
DG10	TLMY1000	TLMY1000	SMDLED_0603	86.000	23.900	90.000	NO	
DG11	TLMY1000	TLMY1000	SMDLED_0603	86.000	26.100	90.000	NO	
DG12	TLMY1000	TLMY1000	SMDLED_0603	86.000	28.300	90.000	NO	
DH1	TLMY1000	TLMY1000	SMDLED_0603	88.300	4.100	90.000	NO	
DH2	TLMY1000	TLMY1000	SMDLED_0603	88.300	6.300	90.000	NO	
DH3	TLMY1000	TLMY1000	SMDLED_0603	88.300	8.500	90.000	NO	
DH4	TLMY1000	TLMY1000	SMDLED_0603	88.300	10.700	90.000	NO	
DH5	TLMY1000	TLMY1000	SMDLED_0603	88.300	12.900	90.000	NO	
DH6	TLMY1000	TLMY1000	SMDLED_0603	88.300	15.100	90.000	NO	
DH7	TLMY1000	TLMY1000	SMDLED_0603	88.300	17.300	90.000	NO	
DH8	TLMY1000	TLMY1000	SMDLED_0603	88.300	19.500	90.000	NO	
DH9	TLMY1000	TLMY1000	SMDLED_0603	88.300	21.700	90.000	NO	
DH10	TLMY1000	TLMY1000	SMDLED_0603	88.300	23.900	90.000	NO	
DH11	TLMY1000	TLMY1000	SMDLED_0603	88.300	26.100	90.000	NO	
DH12	TLMY1000	TLMY1000	SMDLED_0603	88.300	28.300	90.000	NO	
J1	CO3		JACK3	9.910	16.300	90.000	NO	
J2	CO7		JUMP7	63.000	1.500	0.000	NO	
J3	CO16		PULSE_RJ45	6.400	42.800	0.000	NO	
J4	CO6		USB4B	15.000	27.500	270.000	NO	
J5	CO20		CPMC20	96.000	53.700	270.000	NO	
J6	CO64		MO64FSMD_1MM	67.200	30.000	270.000	NO	
J7	CO64		MO64MSMD_1MM	67.200	30.000	90.000	YES	
J8	CO4		MM4	66.000	56.500	270.000	NO	
J9	CO6		MM6	44.500	1.500	0.000	NO	
L1	BEAD	MLB-160808-0300PN	0603_G	55.100	34.400	90.000	YES	
L2	BEAD	MLB-160808-0300PN	0603_G	41.900	54.500	90.000	YES	
L3	BEAD	MLB-160808-0300PN	0603_G	40.500	52.000	0.000	YES	
L4	BEAD	MLB-160808-0300PN	0603_G	46.100	33.200	270.000	YES	
L5	BEAD	MLB-160808-0300PN	0603_G	24.000	39.400	270.000	YES	
L6	BEAD	MLB-160808-0300PN	0603_G	56.100	26.700	270.000	YES	
L7	BEAD	MLB-160808-0300PN	0603_G	48.100	26.200	90.000	YES	
R1	R	10K	0402	91.700	24.900	90.000	YES	
R2	R	330	0402	75.380	50.500	180.000	YES	
R3	R	1K	0402	74.110	53.000	0.000	YES	
R4	R	330	0402	75.380	35.000	180.000	YES	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
R5	R	1K	0402	74.110	38.000	0.000	YES	
R6	R	330	0402	75.380	53.000	0.000	YES	
R7	R	330	0402	75.380	38.000	0.000	YES	
R8	R	330	0402	77.920	50.500	180.000	YES	
R9	R	1K	0402	76.650	53.000	0.000	YES	
R10	R	330	0402	77.920	35.000	180.000	YES	
R11	R	1K	0402	76.650	38.000	0.000	YES	
R12	R	330	0402	77.920	53.000	0.000	YES	
R13	R	330	0402	77.920	38.000	0.000	YES	
R14	R	10K	0402	91.700	18.300	90.000	YES	
R15	R	330	0402	80.460	50.500	180.000	YES	
R16	R	1K	0402	79.190	53.000	0.000	YES	
R17	R	330	0402	80.460	35.000	180.000	YES	
R18	R	1K	0402	79.190	38.000	0.000	YES	
R19	R	330	0402	80.460	53.000	0.000	YES	
R20	R	330	0402	80.460	38.000	0.000	YES	
R21	R	330	0402	83.000	50.500	180.000	YES	
R22	R	1K	0402	81.730	53.000	0.000	YES	
R23	R	330	0402	83.000	35.000	180.000	YES	
R24	R	1K	0402	81.730	38.000	0.000	YES	
R25	R	10K	0402	91.700	11.800	90.000	YES	
R26	R	330	0402	83.000	53.000	0.000	YES	
R27	R	330	0402	83.000	38.000	0.000	YES	
R28	R	330	0402	85.540	50.500	180.000	YES	
R29	R	1K	0402	84.270	53.000	0.000	YES	
R30	R	330	0402	85.540	35.000	180.000	YES	
R31	R	1K	0402	84.270	38.000	0.000	YES	
R32	R	330	0402	85.540	53.000	0.000	YES	
R33	R	330	0402	47.900	55.200	270.000	YES	
R34	R	330	0402	85.540	38.000	0.000	YES	
R35	R	10K	0402	91.700	5.400	90.000	YES	
R36	R	330	0402	88.080	50.500	180.000	YES	
R37	R	1K	0402	86.810	53.000	0.000	YES	
R38	R	330	0402	88.080	35.000	180.000	YES	
R39	R	1K	0402	86.810	38.000	0.000	YES	
R40	R	330	0402	88.080	53.000	0.000	YES	
R41	R	330	0402	88.080	38.000	0.000	YES	
R42	R	330	0402	90.620	50.500	180.000	YES	
R43	R	1K	0402	89.350	53.000	0.000	YES	
R44	R	330	0402	90.620	35.000	180.000	YES	
R45	R	1K	0402	89.350	38.000	0.000	YES	
R46	R	330	0402	90.620	53.000	0.000	YES	
R47	R	330	0402	90.620	38.000	0.000	YES	
R48	R	330	0402	93.160	50.500	180.000	YES	
R49	R	1K	0402	91.890	53.000	0.000	YES	
R50	R	11K	0603_G	49.100	52.800	270.000	YES	
R51	R	22	0402	12.500	46.800	180.000	YES	
R52	R	22	0402	10.700	46.800	180.000	YES	
R53	R	47	0402	9.100	44.700	180.000	YES	
R54	R	220	0402	16.400	37.900	180.000	YES	
R55	R	47	0402	6.400	37.900	0.000	YES	
R56	R	220	0402	8.000	37.900	180.000	YES	
R57	R	22	0402	10.700	44.700	0.000	YES	
R58	R	22	0402	12.500	44.700	0.000	YES	
R59	R	10	0402	2.700	43.200	180.000	YES	
R60	R	0	0402	7.600	44.700	0.000	YES	
R61	R	330	0402	93.160	35.000	180.000	YES	
R62	R	1K	0402	91.890	38.000	0.000	YES	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
R63	R	330	0402	93.160	53.000	0.000	YES	
R64	R	330	0402	93.160	38.000	0.000	YES	
R65	R	1K	0402	98.100	26.200	270.000	YES	
R66	R	10K	0402	37.200	34.700	90.000	YES	
R67	R	10K	0402	44.400	45.600	90.000	YES	
R68	R	560	0402	98.100	19.800	270.000	YES	
R69	R	1K	0402	98.100	13.300	270.000	YES	
R70	R	10K	0402	51.600	42.500	0.000	YES	
R71	R	1K	0402	98.100	6.900	270.000	YES	
R72	R	10K	0402	46.600	41.700	180.000	YES	
R73	R	10K	0402	45.900	44.900	180.000	YES	
R74	R	10K	0402	44.400	44.700	270.000	YES	
R75	R	39	0402	59.600	14.900	270.000	YES	
R76	R	10K	0402	52.500	41.400	0.000	YES	
R77	R	10K	0402	94.400	53.000	0.000	YES	
R78	R	10K	0402	37.200	10.400	90.000	YES	
R79	R	10K	0402	50.900	7.200	0.000	YES	
R80	R	10K	0402	49.800	7.200	0.000	YES	
R81	R	10K	0402	48.700	7.200	0.000	YES	
R82	R	10K	0402	52.000	7.200	0.000	YES	
R83	R	2.2K	0402	48.200	57.100	180.000	YES	
R161	R	10K	0402	16.600	13.800	180.000	YES	
R162	R	2.7K	0805_G	27.100	14.700	180.000	YES	
R163	R	2.7K	0805_G	29.300	2.500	0.000	YES	
R164	R	820	0402	40.500	2.100	270.000	YES	
R165	R	10K	0402	40.800	56.700	0.000	YES	
R166	R	10K	0402	28.300	50.100	90.000	YES	
R167	R	1K	0402	41.100	32.200	90.000	YES	
R168	R	10K	0402	15.500	11.300	0.000	YES	
R169	R	1K	0402	63.000	3.500	0.000	YES	
R170	R	1K	0402	70.800	4.200	90.000	YES	
R171	R	1K	0402	68.100	3.500	180.000	YES	
R172	R	1K	0402	20.900	32.800	0.000	YES	
R173	R	1K	0402	20.900	30.700	0.000	YES	
R174	R	4.7K	0402	25.200	28.300	90.000	YES	
R175	R	4.7K	0402	22.000	29.400	180.000	YES	
R176	R	10K	0402	25.200	32.900	270.000	YES	
R177	R	10K	0402	36.100	46.000	0.000	YES	
R178	R	10K	0402	41.200	45.800	270.000	YES	
R179	R	10K	0402	37.100	41.400	270.000	YES	
R180	R	10K	0402	21.500	42.300	90.000	YES	
R181	R	10K	0402	37.100	36.600	270.000	YES	
R182	R	10K	0402	37.100	38.200	90.000	YES	
R183	R	10K	0402	35.200	46.000	0.000	YES	
R184	R	10K	0402	34.300	46.000	0.000	YES	
R185	R	10K	0402	33.900	50.000	180.000	YES	
R186	R	10K	0402	33.400	46.000	0.000	YES	
R187	R	10K	0402	32.900	50.000	180.000	YES	
R188	R	10K	0402	32.500	46.000	0.000	YES	
R189	R	10K	0402	31.900	50.000	180.000	YES	
R190	R	10K	0402	25.300	42.900	270.000	YES	
R191	R	10K	0402	35.700	35.800	270.000	YES	
R192	R	10K	0402	37.100	40.600	90.000	YES	
R193	R	10K	0402	21.500	43.300	90.000	YES	
R194	R	10K	0402	37.100	39.800	90.000	YES	
R195	R	10K	0402	25.300	43.900	270.000	YES	
R196	R	10K	0402	37.100	39.000	90.000	YES	
R197	R	10K	0402	21.500	44.400	90.000	YES	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
R198	R	10K	0402	37.100	37.400	90.000	YES	
R199	R	10K	0402	25.300	44.900	270.000	YES	
R200	R	47	0402	54.500	3.000	90.000	YES	
R201	R	47	0402	54.500	5.000	90.000	YES	
R202	R	47	0402	59.500	4.300	270.000	YES	
R203	R	10K	0402	61.700	11.300	90.000	YES	
R204	R	1K	0402	59.600	11.300	90.000	YES	
R205	R	10K	0402	61.700	12.400	90.000	YES	
R206	R	1K	0402	59.600	12.400	90.000	YES	
R207	R	10K	0402	61.700	13.600	90.000	YES	
R208	R	10K	0402	59.600	13.600	90.000	YES	
R209	R	10K	0402	49.800	45.200	180.000	YES	
R210	R	10K	0402	59.700	51.300	90.000	YES	
R211	R	10K	0402	63.800	51.700	270.000	YES	
R212	R	10K	0402	59.700	52.200	90.000	YES	
R213	R	10K	0402	63.800	52.600	270.000	YES	
R214	R	10K	0402	59.700	53.100	90.000	YES	
R215	R	10K	0402	63.800	53.500	270.000	YES	
R216	R	10K	0402	59.700	54.000	90.000	YES	
R217	R	10K	0402	63.800	54.400	270.000	YES	
R218	R	10K	0402	59.700	54.900	90.000	YES	
R219	R	10K	0402	63.800	55.300	270.000	YES	
R220	R	10K	0402	59.700	55.800	90.000	YES	
R221	R	10K	0402	54.000	45.800	0.000	YES	
R222	R	10K	0402	51.200	45.200	0.000	YES	
R227	R	10K	0402	37.700	44.300	180.000	YES	
R228	R	470	0402	14.400	23.900	180.000	YES	
R230	R	10K	0402	17.500	11.350	0.000	YES	
R231	R	10K	0402	5.700	10.500	180.000	YES	
R232	R	820	0402	7.300	10.500	180.000	YES	
R233	R	820	0402	16.100	9.200	0.000	YES	
R162A	R	39K	0805_G	29.300	14.700	0.000	YES	
R163A	R	430	0805_G	27.100	2.500	180.000	YES	
RA1	R	1K	0603_G	73.700	4.100	90.000	YES	
RA2	R	1K	0603_G	73.700	6.300	90.000	YES	
RA3	R	1K	0603_G	73.700	8.500	90.000	YES	
RA4	R	1K	0603_G	73.700	10.700	90.000	YES	
RA5	R	1K	0603_G	73.700	12.900	90.000	YES	
RA6	R	1K	0603_G	73.700	15.100	90.000	YES	
RA7	R	1K	0603_G	73.700	17.300	90.000	YES	
RA8	R	1K	0603_G	73.700	19.500	90.000	YES	
RA9	R	1K	0603_G	73.700	21.700	90.000	YES	
RA10	R	1K	0603_G	73.700	23.900	90.000	YES	
RA11	R	1K	0603_G	73.700	26.100	90.000	YES	
RA12	R	1K	0603_G	73.700	28.300	90.000	YES	
RB1	R	1K	0603_G	76.000	4.100	90.000	YES	
RB2	R	1K	0603_G	76.000	6.300	90.000	YES	
RB3	R	1K	0603_G	76.000	8.500	90.000	YES	
RB4	R	1K	0603_G	76.000	10.700	90.000	YES	
RB5	R	1K	0603_G	76.000	12.900	90.000	YES	
RB6	R	1K	0603_G	76.000	15.100	90.000	YES	
RB7	R	1K	0603_G	76.000	17.300	90.000	YES	
RB8	R	1K	0603_G	76.000	19.500	90.000	YES	
RB9	R	1K	0603_G	76.000	21.700	90.000	YES	
RB10	R	1K	0603_G	76.000	23.900	90.000	YES	
RB11	R	1K	0603_G	76.000	26.100	90.000	YES	
RB12	R	1K	0603_G	76.000	28.300	90.000	YES	
RC1	R	560	0603_G	78.300	4.100	90.000	YES	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
RC2	R	560	0603_G	78.300	6.300	90.000	YES	
RC3	R	560	0603_G	78.300	8.500	90.000	YES	
RC4	R	560	0603_G	78.300	10.700	90.000	YES	
RC5	R	560	0603_G	78.300	12.900	90.000	YES	
RC6	R	560	0603_G	78.300	15.100	90.000	YES	
RC7	R	560	0603_G	78.300	17.300	90.000	YES	
RC8	R	560	0603_G	78.300	19.500	90.000	YES	
RC9	R	560	0603_G	78.300	21.700	90.000	YES	
RC10	R	560	0603_G	78.300	23.900	90.000	YES	
RC11	R	560	0603_G	78.300	26.100	90.000	YES	
RC12	R	560	0603_G	78.300	28.300	90.000	YES	
RD1	R	1K	0603_G	80.600	4.100	90.000	YES	
RD2	R	1K	0603_G	80.600	6.300	90.000	YES	
RD3	R	1K	0603_G	80.600	8.500	90.000	YES	
RD4	R	1K	0603_G	80.600	10.700	90.000	YES	
RD5	R	1K	0603_G	80.600	12.900	90.000	YES	
RD6	R	1K	0603_G	80.600	15.100	90.000	YES	
RD7	R	1K	0603_G	80.600	17.300	90.000	YES	
RD8	R	1K	0603_G	80.600	19.500	90.000	YES	
RD9	R	1K	0603_G	80.600	21.700	90.000	YES	
RD10	R	1K	0603_G	80.600	23.900	90.000	YES	
RD11	R	1K	0603_G	80.600	26.100	90.000	YES	
RD12	R	1K	0603_G	80.600	28.300	90.000	YES	
RE1	R	1K	0603_G	82.900	4.100	90.000	YES	
RE2	R	1K	0603_G	82.900	6.300	90.000	YES	
RE3	R	1K	0603_G	82.900	8.500	90.000	YES	
RE4	R	1K	0603_G	82.900	10.700	90.000	YES	
RE5	R	1K	0603_G	82.900	12.900	90.000	YES	
RE6	R	1K	0603_G	82.900	15.100	90.000	YES	
RE7	R	1K	0603_G	82.900	17.300	90.000	YES	
RE8	R	1K	0603_G	82.900	19.500	90.000	YES	
RE9	R	1K	0603_G	82.900	21.700	90.000	YES	
RE10	R	1K	0603_G	82.900	23.900	90.000	YES	
RE11	R	1K	0603_G	82.900	26.100	90.000	YES	
RE12	R	1K	0603_G	82.900	28.300	90.000	YES	
RF1	R	1K	0603_G	85.200	4.100	90.000	YES	
RF2	R	1K	0603_G	85.200	6.300	90.000	YES	
RF3	R	1K	0603_G	85.200	8.500	90.000	YES	
RF4	R	1K	0603_G	85.200	10.700	90.000	YES	
RF5	R	1K	0603_G	85.200	12.900	90.000	YES	
RF6	R	1K	0603_G	85.200	15.100	90.000	YES	
RF7	R	1K	0603_G	85.200	17.300	90.000	YES	
RF8	R	1K	0603_G	85.200	19.500	90.000	YES	
RF9	R	1K	0603_G	85.200	21.700	90.000	YES	
RF10	R	1K	0603_G	85.200	23.900	90.000	YES	
RF11	R	1K	0603_G	85.200	26.100	90.000	YES	
RF12	R	1K	0603_G	85.200	28.300	90.000	YES	
RG1	R	1K	0603_G	87.500	4.100	90.000	YES	
RG2	R	1K	0603_G	87.500	6.300	90.000	YES	
RG3	R	1K	0603_G	87.500	8.500	90.000	YES	
RG4	R	1K	0603_G	87.500	10.700	90.000	YES	
RG5	R	1K	0603_G	87.500	12.900	90.000	YES	
RG6	R	1K	0603_G	87.500	15.100	90.000	YES	
RG7	R	1K	0603_G	87.500	17.300	90.000	YES	
RG8	R	1K	0603_G	87.500	19.500	90.000	YES	
RG9	R	1K	0603_G	87.500	21.700	90.000	YES	
RG10	R	1K	0603_G	87.500	23.900	90.000	YES	
RG11	R	1K	0603_G	87.500	26.100	90.000	YES	

Component Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:31 MET DST 2007

Ref Des	Device Type	Value	Package Type	x	y	ang	Mir	Remark
RG12	R	1K	0603_G	87.500	28.300	90.000	YES	
RH1	R	1K	0603_G	89.800	4.100	90.000	YES	
RH2	R	1K	0603_G	89.800	6.300	90.000	YES	
RH3	R	1K	0603_G	89.800	8.500	90.000	YES	
RH4	R	1K	0603_G	89.800	10.700	90.000	YES	
RH5	R	1K	0603_G	89.800	12.900	90.000	YES	
RH6	R	1K	0603_G	89.800	15.100	90.000	YES	
RH7	R	1K	0603_G	89.800	17.300	90.000	YES	
RH8	R	1K	0603_G	89.800	19.500	90.000	YES	
RH9	R	1K	0603_G	89.800	21.700	90.000	YES	
RH10	R	1K	0603_G	89.800	23.900	90.000	YES	
RH11	R	1K	0603_G	89.800	26.100	90.000	YES	
RH12	R	1K	0603_G	89.800	28.300	90.000	YES	
SMD1	SMD_TARGET_RHOMBUS_1		SMD_TARGET_RHOMBUS_100_100	3.900	55.400	0.000	NO	
SMD2	SMD_TARGET_RHOMBUS_1		SMD_TARGET_RHOMBUS_100_100	2.150	6.300	0.000	NO	
SMD3	SMD_TARGET_RHOMBUS_1		SMD_TARGET_RHOMBUS_100_100	54.400	51.100	0.000	YES	
SMD4	SMD_TARGET_RHOMBUS_1		SMD_TARGET_RHOMBUS_100_100	5.000	27.500	0.000	YES	
SW1	KAT1108E		KAT1108E	83.000	51.900	90.000	NO	
SW2	KAT1108E		KAT1108E	83.000	36.800	90.000	NO	
SW3	SWPOU		POUSMD_6MM_G	94.600	26.900	90.000	NO	
SW4	SWPOU		POUSMD_6MM_G	94.600	20.500	90.000	NO	
SW5	SWPOU		POUSMD_6MM_G	94.600	14.000	90.000	NO	
SW6	SWPOU		POUSMD_6MM_G	94.600	7.600	90.000	NO	
SW7	SWPOU		POUSMD_6MM_G	3.500	5.500	0.000	NO	
SW8	SWPOU		POUSMD_6MM_G	15.350	5.500	0.000	NO	
TP1	TP		TP2812	21.400	47.600	0.000	YES	
TP2	TP		TP2812	63.500	57.700	0.000	YES	
TP3	TP		TP5435	66.900	7.700	0.000	NO	
TP4	TP		TP2812	23.200	26.100	0.000	NO	
TP5	TP		TP2812	41.000	0.800	0.000	NO	
TP6	TP		TP2812	26.300	57.200	0.000	NO	
U1	24LC02B		SO8	19.000	29.200	270.000	NO	
U2	DCDC		DCDC5_NNL05	29.300	18.500	180.000	NO	
U3	LAN91C111		TQFP128_2	54.000	51.000	0.000	NO	
U4	EPCS16		SO16L	33.905	54.500	0.000	NO	
U5	IS42S32800B		TSOP86	52.000	12.500	90.000	NO	
U6	EP2C20		PBGA484_1MM	52.100	30.700	0.000	NO	
U7	DCDC		DCDC5_NNL05	29.300	6.200	180.000	NO	
U8	CY7C68013A		TQFP128	31.200	37.100	0.000	NO	
U9	74HC126PW		TSSOP14	57.000	3.000	180.000	NO	
U10	STM811TW16F		SOT143	16.950	18.400	0.000	NO	
U11	STM811TW16F		SOT143	16.400	12.800	270.000	NO	
U12	STM811TW16F		SOT143	10.300	6.500	270.000	NO	
U13	93C46BSN		SO8	42.200	56.100	90.000	NO	
U14	SS23	SS23	DO214AA	18.900	16.300	270.000	YES	
V1	VIS_METAL		VIS2	23.500	57.500	0.000	NO	
V2	VIS_METAL		VIS2	8.800	2.500	0.000	NO	
V3	VIS_METAL		VIS2	97.500	2.500	0.000	NO	
V4	VIS_METAL		VIS2	97.500	57.500	0.000	NO	
W1	JUMP2		JUMP2	20.500	37.800	180.000	NO	
W2	JUMP2		JUMP2	17.400	21.800	0.000	NO	
XT1	C3391		OSCNMSO_SMD	23.700	52.700	0.000	NO	

Total Component count 516

BOM Report FPGA4U_C

fpga4u_gloss — Fri Jul 6 11:12:32 MET DST 2007

Device	Package	Value	Nb	Reference Designators					Remark
0402-100N	0402	100N	58	C2	C4	C5	C8	C10	
				C12	C14	C15	C17	C19	
				C21	C22	C23	C24	C25	
				C26	C27	C28	C29	C30	
				C31	C32	C33	C34	C35	
				C36	C37	C38	C39	C41	
				C43	C45	C47	C49	C51	
				C53	C55	C57	C59	C61	
				C63	C65	C67	C69	C70	
				C71	C72	C74	C76	C79	
				C80	C81	C82	C84	C86	
				C88	C90	C91			
0402-10N	0402	10N	4	C3	C77	C78	C87		
0402-1N	0402	1N	10	C6	C9	C11	C13	C16	
				C20	C73	C75	C83	C85	
0805-1-10U	0805_G	10U	18	C1	C7	C18	C40	C42	
				C44	C46	C48	C50	C52	
				C54	C56	C58	C60	C62	
				C64	C66	C68			
1210-22U	1210	22U	1	C89					
1PS70SB10	SC70_3	1PS70SB10	1	D23					
24LC02B-1-B	SO8		1	U1					
74HC126PW-A	TSSOP14		1	U9					
93C46BSN-ND-A	SO8		1	U13					
BEAD-0604-MLB-160808	0603_G	MLB-160808-0300PN	7	L1	L2	L3	L4	L5	
				L6	L7				
C3391	OSCNMSO_SMD		1	XT1					
CO16-PULSE-RJ45	PULSE_RJ45		1	J3					
CO20-CPMC20	CPMC20		1	J5					
CO3-JACK3-DC10A	JACK3		1	J1					
CO4-MM4	MM4		1	J8					
CO6-MM6	MM6		1	J9					
CO6-USB4B	USB4B		1	J4					
CO64-MO64FSMD_1MM	MO64FSMD_1MM		1	J6					
CO64-MO64MSMD_1MM	MO64MSMD_1MM		1	J7					
CO7-JUMP7	JUMP7		1	J2					
CY7C68013A-128AXC	TQFP128		1	U8					
DCDC-AXH003A0X-SRZ	DCDC5_NNL05		2	U2	U7				
EP2C20	PBGA484_1MM		1	U6					
EPCS16	SO16L		1	U4					
IS42S32800B-6TL	TSOP86		1	U5					
JUMP2-0	JUMP2		2	W1	W2				
KAT1108E	KAT1108E		2	SW1	SW2				
LAN91C111-NC	TQFP128_2		1	U3					
R-0402-0	0402	0	1	R60					
R-0402-10	0402	10	1	R59					

BOM Report FPGA4U_C

fpga4u_gloss — Fri Jul 6 11:12:32 MET DST 2007

Device	Package	Value	Nb	Reference Designators	Remark
R-0402-10K	0402	10K	66	R1 R14 R25 R35 R66 R67 R70 R72 R73 R74 R76 R77 R78 R79 R80 R81 R82 R161 R165 R166 R168 R176 R177 R178 R179 R180 R181 R182 R183 R184 R185 R186 R187 R188 R189 R190 R191 R192 R193 R194 R195 R196 R197 R198 R199 R203 R205 R207 R208 R209 R210 R211 R212 R213 R214 R215 R216 R217 R218 R219 R220 R221 R222 R227 R230 R231	
R-0402-1K	0402	1K	27	R3 R5 R9 R11 R16 R18 R22 R24 R29 R31 R37 R39 R43 R45 R49 R62 R65 R69 R71 R167 R169 R170 R171 R172 R173 R204 R206	
R-0402-2.2K	0402	2.2K	1	R83	
R-0402-22	0402	22	4	R51 R52 R57 R58	
R-0402-220	0402	220	2	R54 R56	
R-0402-330	0402	330	33	R2 R4 R6 R7 R8 R10 R12 R13 R15 R17 R19 R20 R21 R23 R26 R27 R28 R30 R32 R33 R34 R36 R38 R40 R41 R42 R44 R46 R47 R48 R61 R63 R64	
R-0402-39	0402	39	1	R75	
R-0402-4.7K	0402	4.7K	2	R174 R175	
R-0402-47	0402	47	5	R53 R55 R200 R201 R202	
R-0402-470	0402	470	1	R228	
R-0402-560	0402	560	1	R68	
R-0402-820	0402	820	3	R164 R232 R233	
R-0603_G-11K	0603_G	11K	1	R50	
R-0603_G-1K	0603_G	1K	84	RA1 RA2 RA3 RA4 RA5 RA6 RA7 RA8 RA9 RA10 RA11 RA12 RB1 RB2 RB3 RB4 RB5 RB6 RB7 RB8 RB9 RB10 RB11 RB12 RD1 RD2 RD3 RD4 RD5 RD6 RD7 RD8 RD9 RD10 RD11 RD12 RE1 RE2 RE3 RE4 RE5 RE6 RE7 RE8 RE9 RE10 RE11 RE12 RF1 RF2 RF3 RF4 RF5 RF6 RF7 RF8 RF9 RF10 RF11 RF12 RG1 RG2 RG3 RG4 RG5 RG6 RG7 RG8 RG9 RG10 RG11 RG12 RH1 RH2 RH3 RH4 RH5 RH6 RH7 RH8 RH9 RH10 RH11 RH12	
R-0603_G-560	0603_G	560	12	RC1 RC2 RC3 RC4 RC5 RC6 RC7 RC8 RC9 RC10 RC11 RC12	
R-0805_G-2.7K	0805_G	2.7K	2	R162 R163	

BOM Report FPGA4U_C

fpga4u_gloss — Fri Jul 6 11:12:32 MET DST 2007

Device	Package	Value	Nb	Reference Designators					Remark
R-0805_G-39K	0805_G	39K	1	R162A					
R-0805_G-430	0805_G	430	1	R163A					
SMD_TARGET_RHOMBUS_1	SMD_TARGET_RHOMBUS_100_100		4	SMD1	SMD2	SMD3	SMD4		
SS23	DO214AA	SS23	2	D117	U14				
STM811TW16F	SOT143		3	U10	U11	U12			
SWPOU-POUSMD_6MM_G	POUSMD_6MM_G		6	SW3	SW4	SW5	SW6	SW7	
				SW8					
TLMG1100	SMDLED_0603	TLMG1100	14	D6	D118	DC1	DC2	DC3	
				DC4	DC5	DC6	DC7	DC8	
				DC9	DC10	DC11	DC12		
TLMO1000	SMDLED_0603	TLMO1000	14	D9	D21	DB1	DB2	DB3	
				DB4	DB5	DB6	DB7	DB8	
				DB9	DB10	DB11	DB12		
TLMS1000	SMDLED_0603	TLMS1000	30	D1	D2	D3	D4	D5	
				D7	D8	D10	D11	D12	
				D13	D14	D15	D16	D17	
				D18	D19	D20	DA1	DA2	
				DA3	DA4	DA5	DA6	DA7	
				DA8	DA9	DA10	DA11	DA12	
TLMY1000	SMDLED_0603	TLMY1000	61	D22	DD1	DD2	DD3	DD4	
				DD5	DD6	DD7	DD8	DD9	
				DD10	DD11	DD12	DE1	DE2	
				DE3	DE4	DE5	DE6	DE7	
				DE8	DE9	DE10	DE11	DE12	
				DF1	DF2	DF3	DF4	DF5	
				DF6	DF7	DF8	DF9	DF10	
				DF11	DF12	DG1	DG2	DG3	
				DG4	DG5	DG6	DG7	DG8	
				DG9	DG10	DG11	DG12	DH1	
				DH2	DH3	DH4	DH5	DH6	
				DH7	DH8	DH9	DH10	DH11	
				DH12					
TP-18K	TP2812		5	TP1	TP2	TP4	TP5	TP6	
TP-2	TP5435		1	TP3					
VIS_METAL-M2	VIS2		4	V1	V2	V3	V4		

Total Component count 516

NC Pins Report FPGA4U_C

fpga4u_gloss — Fri Jul 6 11:12:33 MET DST 2007

Ref Des	Device	Nb	Not Connected Pins										Remark
J2	CO7-JUMP7	1	4										
J3	CO16-PULSE-RJ45	3	7	15	16								
J4	CO6-USB4B	2	5	6									
SMD1	SMD_TARGET_RHOMBUS_1	1	1										
SMD2	SMD_TARGET_RHOMBUS_1	1	1										
SMD3	SMD_TARGET_RHOMBUS_1	1	1										
SMD4	SMD_TARGET_RHOMBUS_1	1	1										
U3	LAN91C111-NC	28	2	3	4	5	20	21	25	26	27	28	
			40	43	109	111	112	113	114	115	116	118	
			119	121	122	123	124	125	126	128			
U6	EP2C20	64	A12	AA4	C10	D6	D12	E12	E18	F12	F13	F15	
			G1	G2	G12	G15	G16	G20	H12	H13	H14	H15	
			H21	H22	J3	J5	J6	J14	K17	K18	L2	L7	
			L8	L17	L19	M7	M8	M15	M16	M21	N5	P4	
			P8	P9	P19	P20	P21	P22	R4	R9	R10	R11	
			R12	R13	R14	R15	R16	T7	T8	T11	T12	T15	
			T16	V4	W18	W20							
U8	CY7C68013A-128AXC	38	11	21	22	23	24	25	34	38	39	40	
			41	42	52	59	60	61	62	63	66	67	
			76	77	78	86	87	88	94	95	96	97	
			98	117	118	119	120	126	127	128			
V1	VIS_METAL-M2	1	1										
V2	VIS_METAL-M2	1	1										
V3	VIS_METAL-M2	1	1										
V4	VIS_METAL-M2	1	1										
	Total count 144												

Power Pins Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:34 MET DST 2007

Ref Des	Device	Name	Power Pins	Remark
D2	TLMS1000	GND	1	
D3	TLMS1000	GND	1	
D4	TLMS1000	GND	1	
D5	TLMS1000	GND	1	
D6	TLMG1100	GND	1	
D7	TLMS1000	GND	1	
D8	TLMS1000	GND	1	
D9	TLMO1000	GND	1	
D10	TLMS1000	GND	1	
D11	TLMS1000	GND	1	
D12	TLMS1000	GND	1	
D13	TLMS1000	GND	1	
D14	TLMS1000	GND	1	
D15	TLMS1000	GND	1	
D16	TLMS1000	GND	1	
D17	TLMS1000	GND	1	
D18	TLMS1000	GND	1	
D19	TLMS1000	GND	1	
D20	TLMS1000	GND	1	
D22	TLMY1000	GND	1	
D118	TLMG1100	GND	1	
DA1	TLMS1000	GND	1	
DA2	TLMS1000	GND	1	
DA3	TLMS1000	GND	1	
DA4	TLMS1000	GND	1	
DA5	TLMS1000	GND	1	
DA6	TLMS1000	GND	1	
DA7	TLMS1000	GND	1	
DA8	TLMS1000	GND	1	
DA9	TLMS1000	GND	1	
DA10	TLMS1000	GND	1	
DA11	TLMS1000	GND	1	
DA12	TLMS1000	GND	1	
DB1	TLMO1000	GND	1	
DB2	TLMO1000	GND	1	
DB3	TLMO1000	GND	1	
DB4	TLMO1000	GND	1	
DB5	TLMO1000	GND	1	
DB6	TLMO1000	GND	1	
DB7	TLMO1000	GND	1	
DB8	TLMO1000	GND	1	
DB9	TLMO1000	GND	1	
DB10	TLMO1000	GND	1	
DB11	TLMO1000	GND	1	
DB12	TLMO1000	GND	1	
DC1	TLMG1100	GND	1	
DC2	TLMG1100	GND	1	
DC3	TLMG1100	GND	1	
DC4	TLMG1100	GND	1	
DC5	TLMG1100	GND	1	
DC6	TLMG1100	GND	1	
DC7	TLMG1100	GND	1	
DC8	TLMG1100	GND	1	
DC9	TLMG1100	GND	1	
DC10	TLMG1100	GND	1	
DC11	TLMG1100	GND	1	
DC12	TLMG1100	GND	1	

Power Pins Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:34 MET DST 2007

Ref Des	Device	Name	Power Pins	Remark
DD1	TLMY1000	GND	1	
DD2	TLMY1000	GND	1	
DD3	TLMY1000	GND	1	
DD4	TLMY1000	GND	1	
DD5	TLMY1000	GND	1	
DD6	TLMY1000	GND	1	
DD7	TLMY1000	GND	1	
DD8	TLMY1000	GND	1	
DD9	TLMY1000	GND	1	
DD10	TLMY1000	GND	1	
DD11	TLMY1000	GND	1	
DD12	TLMY1000	GND	1	
DE1	TLMY1000	GND	1	
DE2	TLMY1000	GND	1	
DE3	TLMY1000	GND	1	
DE4	TLMY1000	GND	1	
DE5	TLMY1000	GND	1	
DE6	TLMY1000	GND	1	
DE7	TLMY1000	GND	1	
DE8	TLMY1000	GND	1	
DE9	TLMY1000	GND	1	
DE10	TLMY1000	GND	1	
DE11	TLMY1000	GND	1	
DE12	TLMY1000	GND	1	
DF1	TLMY1000	GND	1	
DF2	TLMY1000	GND	1	
DF3	TLMY1000	GND	1	
DF4	TLMY1000	GND	1	
DF5	TLMY1000	GND	1	
DF6	TLMY1000	GND	1	
DF7	TLMY1000	GND	1	
DF8	TLMY1000	GND	1	
DF9	TLMY1000	GND	1	
DF10	TLMY1000	GND	1	
DF11	TLMY1000	GND	1	
DF12	TLMY1000	GND	1	
DG1	TLMY1000	GND	1	
DG2	TLMY1000	GND	1	
DG3	TLMY1000	GND	1	
DG4	TLMY1000	GND	1	
DG5	TLMY1000	GND	1	
DG6	TLMY1000	GND	1	
DG7	TLMY1000	GND	1	
DG8	TLMY1000	GND	1	
DG9	TLMY1000	GND	1	
DG10	TLMY1000	GND	1	
DG11	TLMY1000	GND	1	
DG12	TLMY1000	GND	1	
DH1	TLMY1000	GND	1	
DH2	TLMY1000	GND	1	
DH3	TLMY1000	GND	1	
DH4	TLMY1000	GND	1	
DH5	TLMY1000	GND	1	
DH6	TLMY1000	GND	1	
DH7	TLMY1000	GND	1	
DH8	TLMY1000	GND	1	
DH9	TLMY1000	GND	1	
DH10	TLMY1000	GND	1	

Power Pins Report FPGA4U_C

fpga4u_gloss — Fri Jul 6 11:12:34 MET DST 2007

Ref Des	Device	Name	Power Pins	Remark
DH11	TLMY1000	GND	1	
DH12	TLMY1000	GND	1	
J1	CO3-JACK3-DC10A	GND	2	
J2	CO7-JUMP7	GND	7	
		V33	6	
J3	CO16-PULSE-RJ45	GND	8	
J4	CO6-USB4B	GND	4	
J5	CO20-CPMC20	GND	20	
		V33	1	
J6	CO64-MO64FSMD_1MM	GND	13 14 63 64	
		V33	1 2	
J7	CO64-MO64MSMD_1MM	GND	13 14 63 64	
		V33	1 2	
J8	CO4-MM4	GND	1	
		V33	2	
J9	CO6-MM6	GND	4 5 6	
		V33	1	
R163A	R-0805_G-430	GND	1	
SW1	KAT1108E	GND	9	
		V33	10	
SW2	KAT1108E	GND	9	
		V33	10	
SW3	SWPOU-POUSMD_6MM_G	GND	2	
SW4	SWPOU-POUSMD_6MM_G	GND	2	
SW5	SWPOU-POUSMD_6MM_G	GND	2	
SW6	SWPOU-POUSMD_6MM_G	GND	2	
SW7	SWPOU-POUSMD_6MM_G	GND	1	
SW8	SWPOU-POUSMD_6MM_G	GND	1	
TP3	TP-2	GND	1	
TP5	TP-18K	V33	1	
U1	24LC02B-1-B	GND	2 3 4 7	
		V33	8	
U2	DCDC-AXH003A0X-SRZ	GND	3	
U3	LAN91C111-NC	GND	13 19 24 37 39 52 57 67 72 93 103 108 117	
		V33	35 36	
		VDDA	11 16	
U4	EPCS16	GND	10	
		V33	1 2 9	
U5	IS42S32800B-6TL	GND	6 12 32 38 44 46 52 58 72 78 84 86	
		V33	1 3 9 15 29 35 41 43 49 55 75 81	
U6	EP2C20	GND	A1 A22 AA2 AA21 AB1 AB22 B2 B21 C5 C8 C15 D10 D13 D18 E16 E17 F5 F6 F7 F18 F19 G4 G10 G13 H20 J8 J9 K3 K7 K10 K11 K12 K13 K15 K16 K19 L10 L11 L12 L13 L15 M4 M10 M11 M12 M13 N7 N8 N10 N11 N12 N13 N16 N19 R3 T10 T13 T17 T20 U5 V3 V5 V6 V7 V16 V17 V18 W10 W13 W19 Y8 Y15	

Power Pins Report FPGA4U_C

fpga4u_gloss — Fri Jul 6 11:12:34 MET DST 2007

Ref Des	Device	Name	Power Pins										Remark
		V33	A2	A21	AA1	AA22	AB2	AB21	B1	B22	C6	C11	
			C12	D17	E10	E13	G9	G14	G19	J7	J16	L3	
			L20	M3	M20	P7	P16	T4	T9	T14	T19	V10	
			V13	W6	W17	Y11	Y12						
U7	DCDC-AXH003A0X-SRZ	GND	3										
		V33	5										
U8	CY7C68013A-128AXC	GND	3	13	20	27	29	30	31	33	35	49	
			53	58	65	80	93	116	125				
		V33	2	26	43	48	64	68	81	100	107		
U9	74HC126PW-A	GND	7										
		V33	14										
U10	STM811TW16F	GND	1										
U11	STM811TW16F	GND	1										
		V33	4										
U12	STM811TW16F	GND	1										
		V33	4										
U13	93C46BSN-ND-A	GND	5										
		V33	6	8									
W2	JUMP2-0	GND	1										
XT1	C3391	GND	2										
		V33	1	4									

Total count 152

Single Node Nets Report FPGA4U_C

fpga4u_gloss Fri Jul 6 11:12:35 MET DST 2007

Netname	Node	Device	Remark
CT_R	J3.5	CO16-PULSE-RJ45	

Total Nets count 1