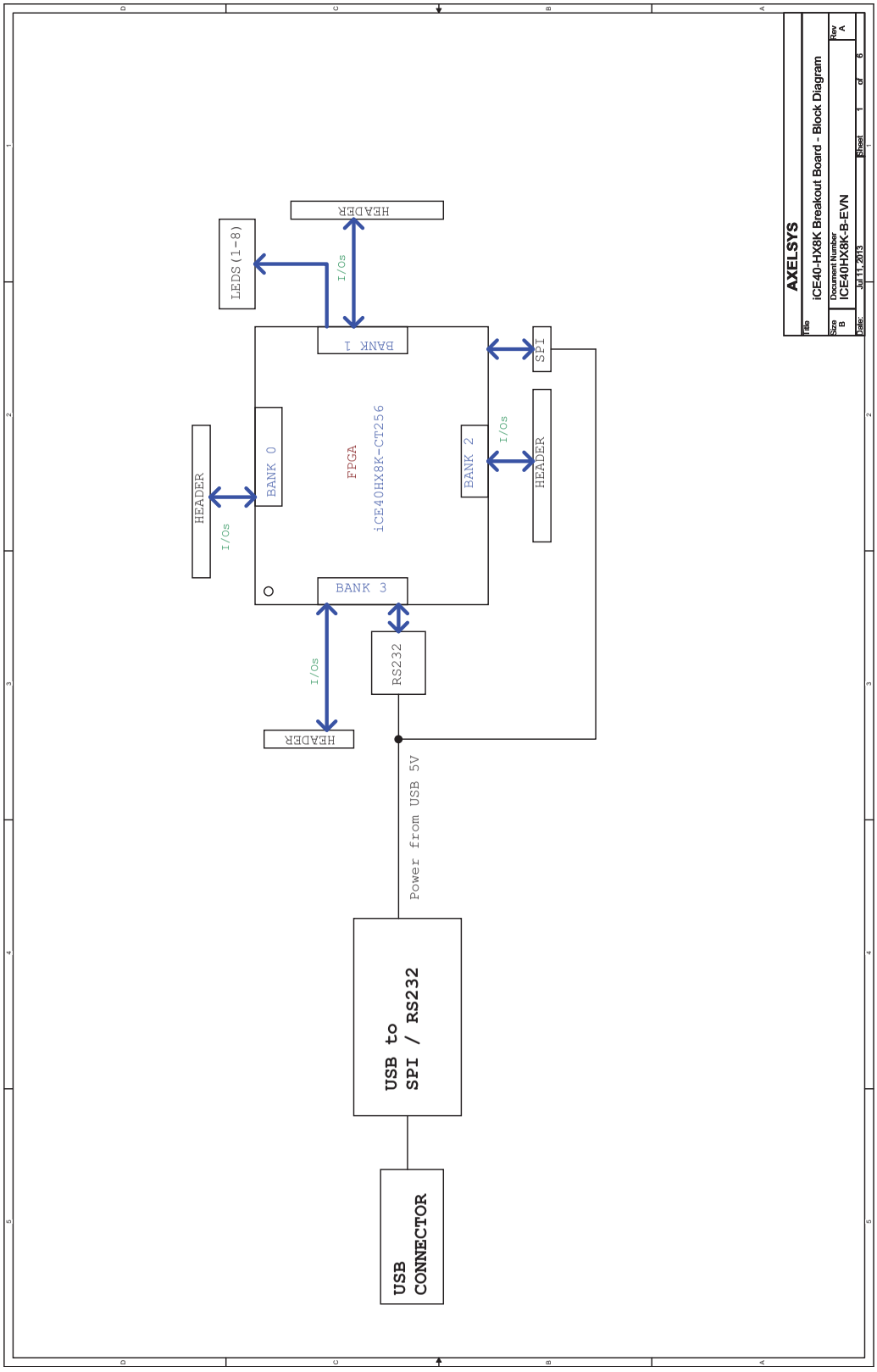
Appendix A. Schematic Diagrams

Figure 6. Block Diagram



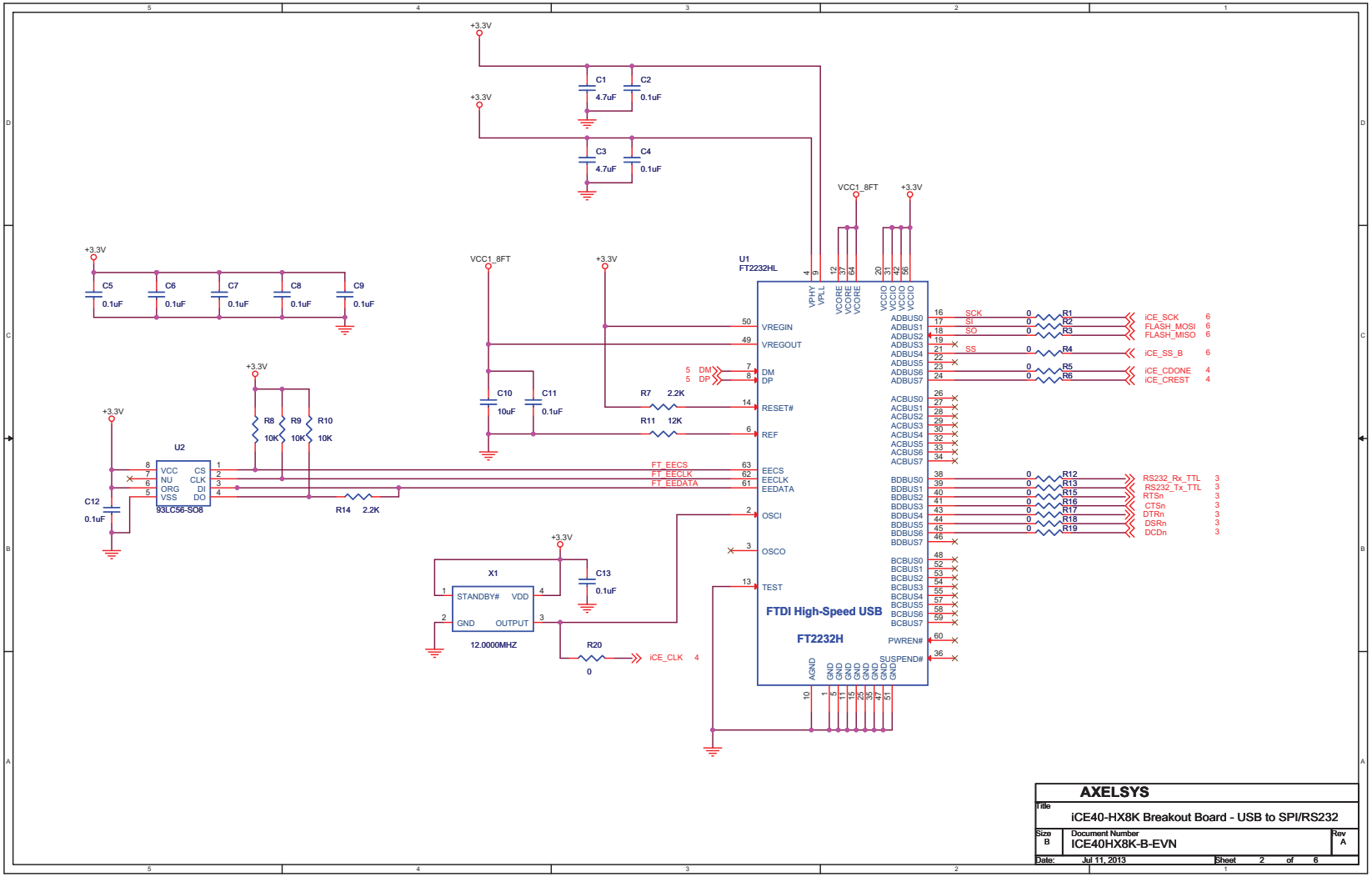


Figure 7. USB to SPI/RS232

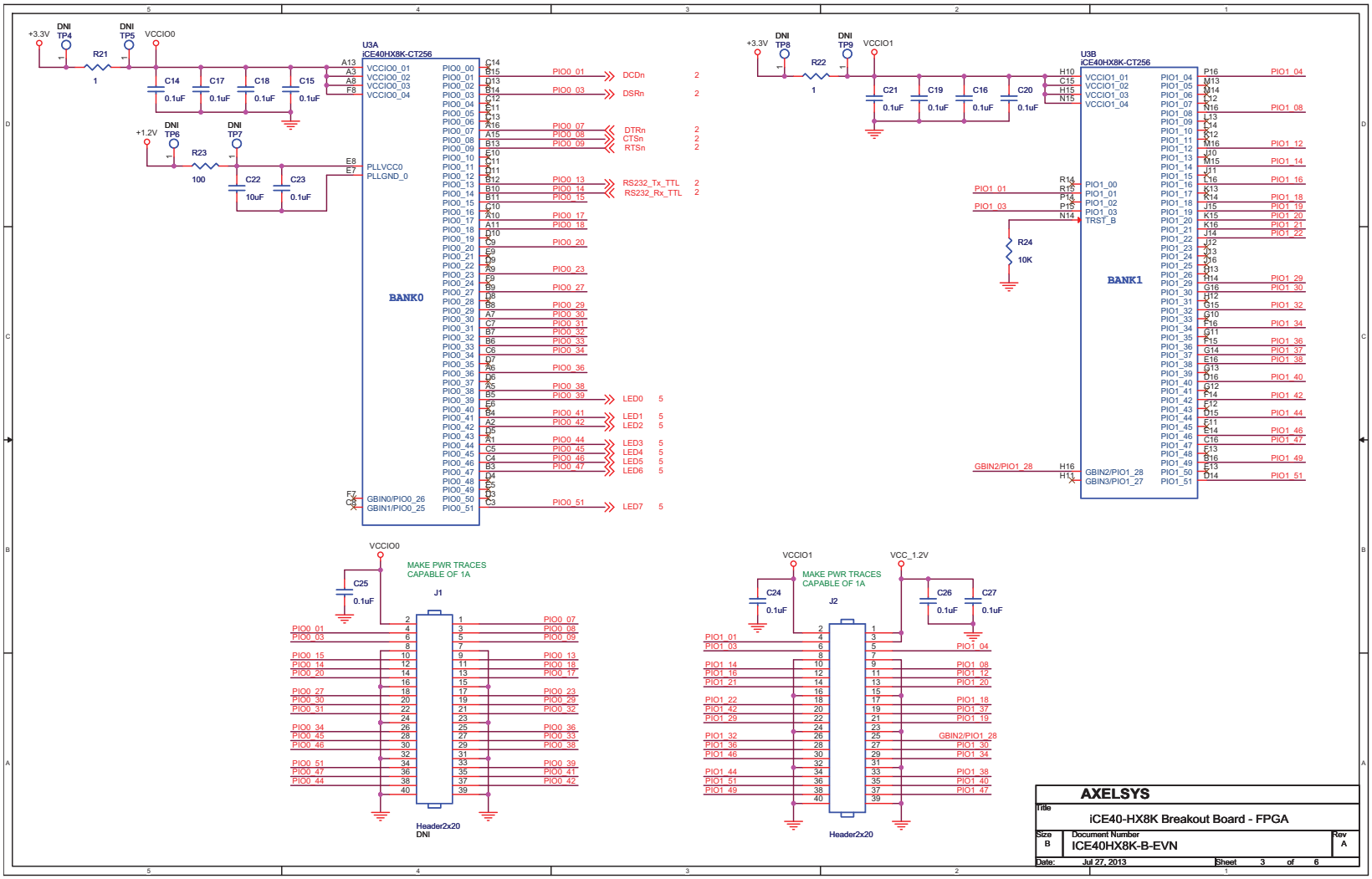


Figure 8. FPGA

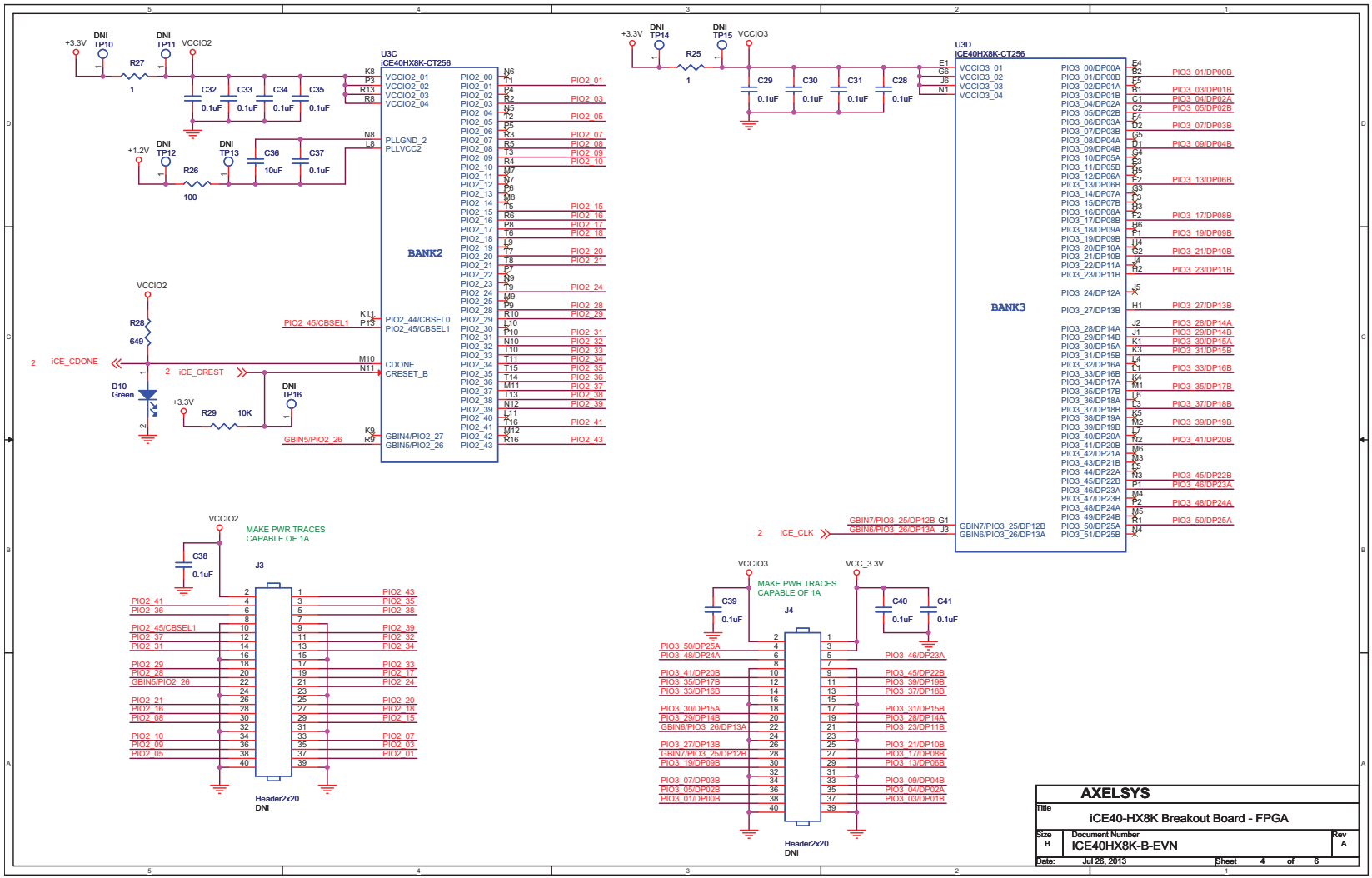


Figure 9. FPGA

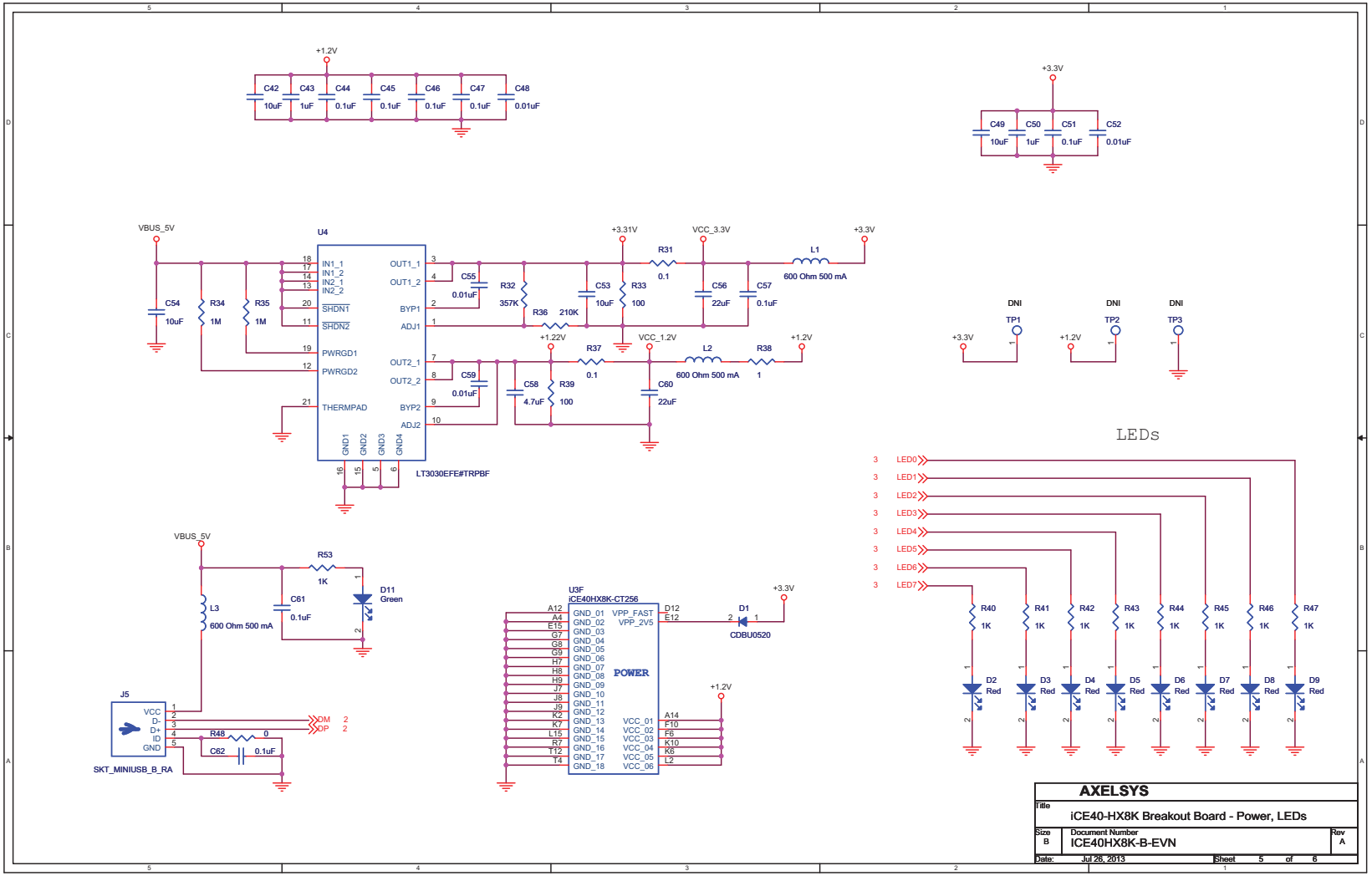
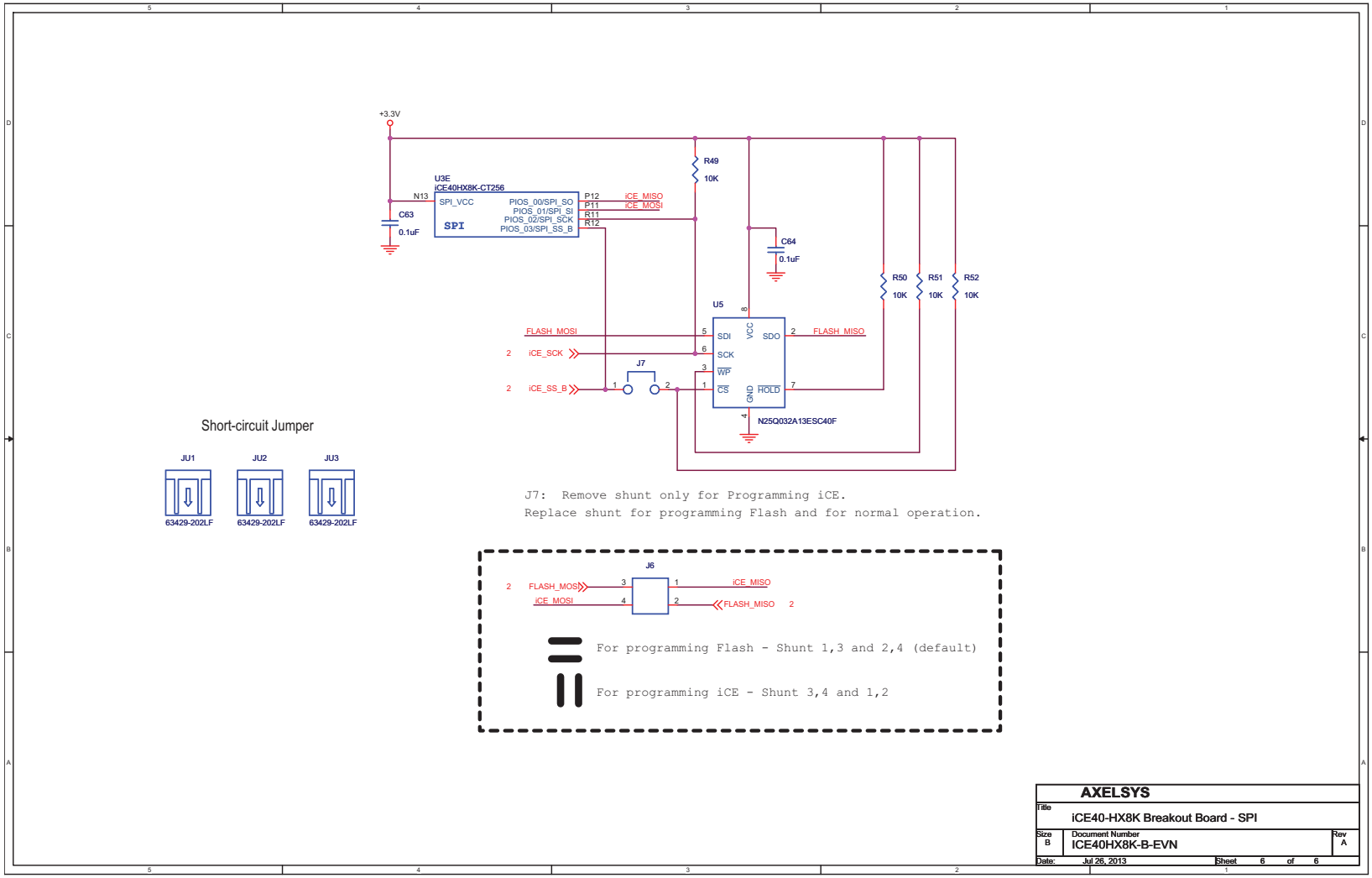


Figure 10. Power and LEDs


+3.3V
U3E
iCE40HX8K-CT256
N13
SPI_VCC
SPI
C63
0.1uF
PIOS_00/SPI_SO
PIOS_01/SPI_SI
PIOS_02/SPI_SCK
PIOS_03/SPI_SS_B
P12
P11
R11
R12
iCE_MISO
iCE_MOSI
R49
10K
C64
0.1uF
R50
10K
R51
10K
R52
10K
U5
SDI
SCK
WP
CS
SDO
VCC
GND
HOLD
N25Q032A13ESC40F
FLASH_MOSI
FLASH_MISO
iCE_SCK
iCE_SS_B
J7
Short-circuit Jumper
JU1
JU2
JU3
63429-202LF
63429-202LF
63429-202LF
J7: Remove shunt only for Programming iCE.
Replace shunt for programming Flash and for normal operation.
J6
FLASH_MOSI
iCE_MOSI
iCE_MISO
FLASH_MISO
For programming Flash - Shunt 1,3 and 2,4 (default)
For programming iCE - Shunt 3,4 and 1,2
AXELSYS
Title
iCE40-HX8K Breakout Board - SPI
Size B
Document Number
ICE40HX8K-B-EVN
Rev A
Date: Jul 26, 2013
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