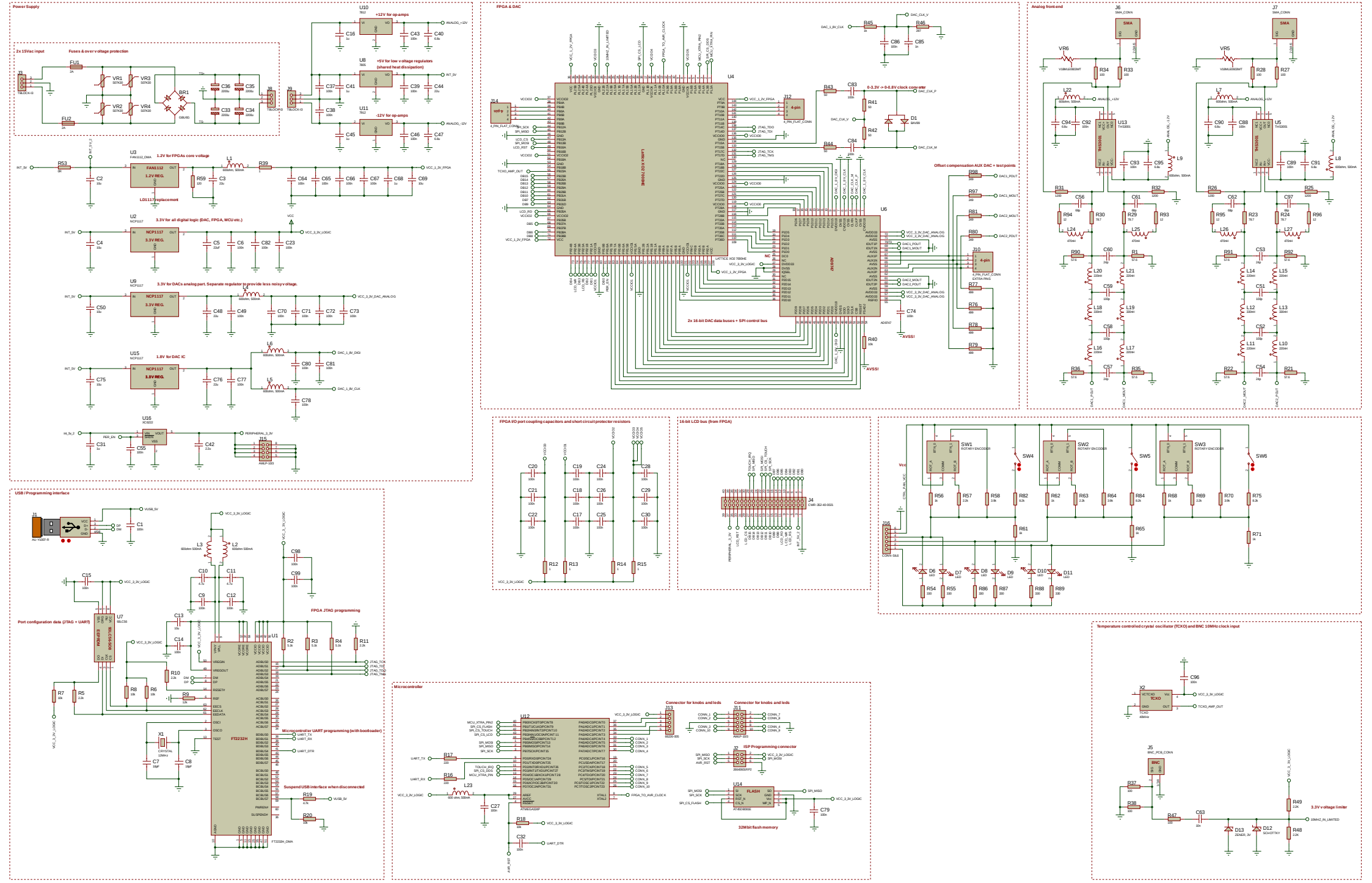
Power Supply
2x 15Vac input
Fuses & over voltage protection
+12V for op-amps
+5V for low voltage regulators (shared heat dissipation)
-12V for op-amps
1.2V for FPGAs core voltage
3.3V for all digital logic (DAC, FPGA, MCU etc.)
3.3V for DACs analog part. Separate regulator to provide less noisy voltage.
1.8V for DAC IC
LD1117 replacement
FPGA & DAC
Offset compensation AUX DAC + test points
0-3.3V -> 0-0.8V clock converter
2x 16-bit DAC data buses + SPI control bus
FPGA I/O port coupling capacitors and short circuit protector resistors
16-bit LCD bus (from FPGA)
Analog front-end
USB / Programming interface
Port configuration data (JTAG + UART)
FPGA JTAG programming
Microcontroller UART programming (with bootloader)
Suspend USB interface when disconnected
Microcontroller
Connector for knobs and leds
ISP Programming connector
32Mbit flash memory
Temperature controlled crystal oscillator (TCXO) and BNC 10MHz clock input
3.3V voltage limiter