

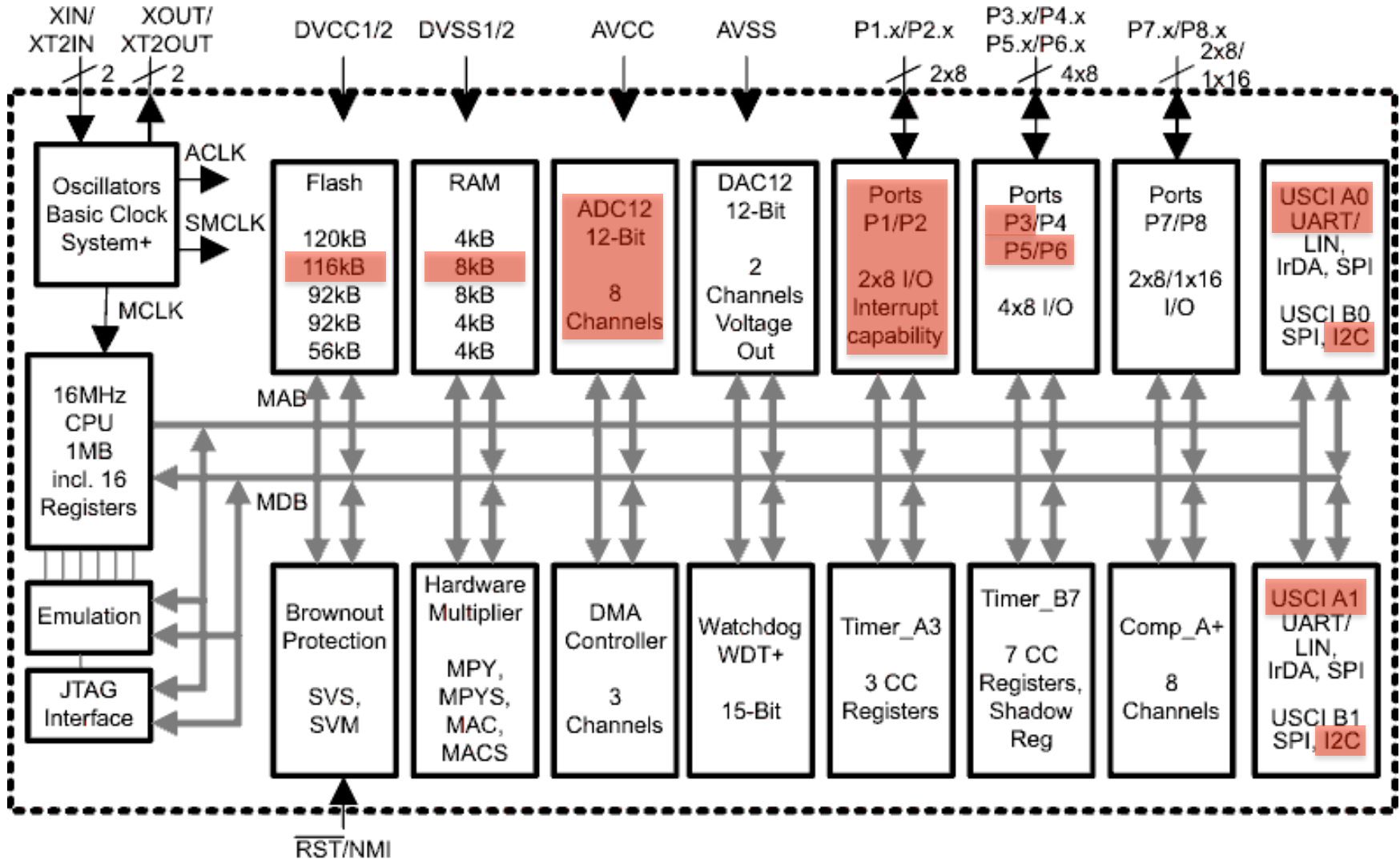
WP4 Slow Control Development

Critical Design Review

WP4 Requirements

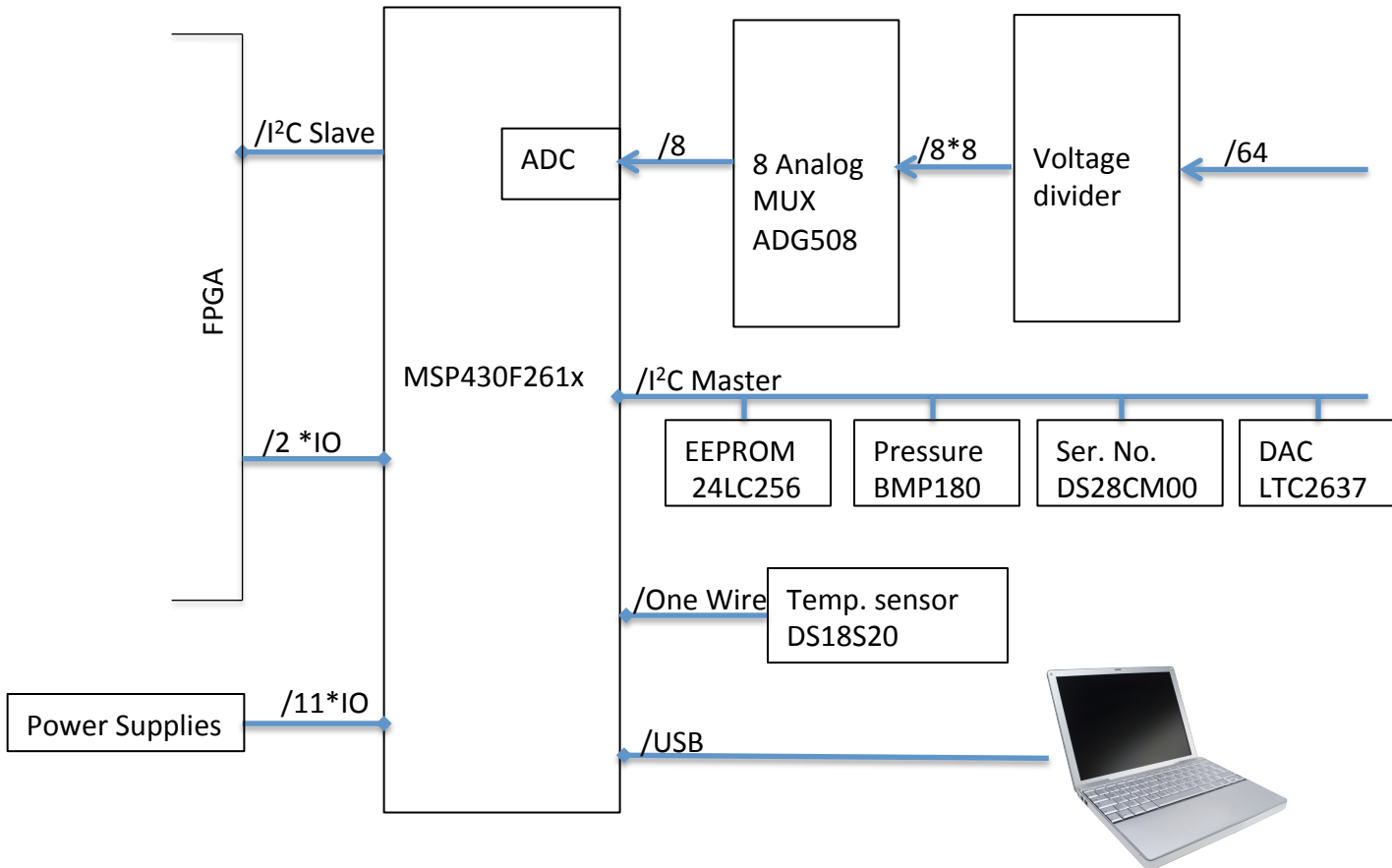
- SC runs on separate uC
- Add on card for 1st version
- >32 (64) 0-5V analog inputs (actual some 12V, 24V, -5V)
- >8 * logic IO's (actual 16)
- 8 * 0-2.5V analog outputs
- USB serial connection
- 1 Water temperature sensor (optional)
- 1 Pressure sensor
- Event logging

MSP430F261x Family

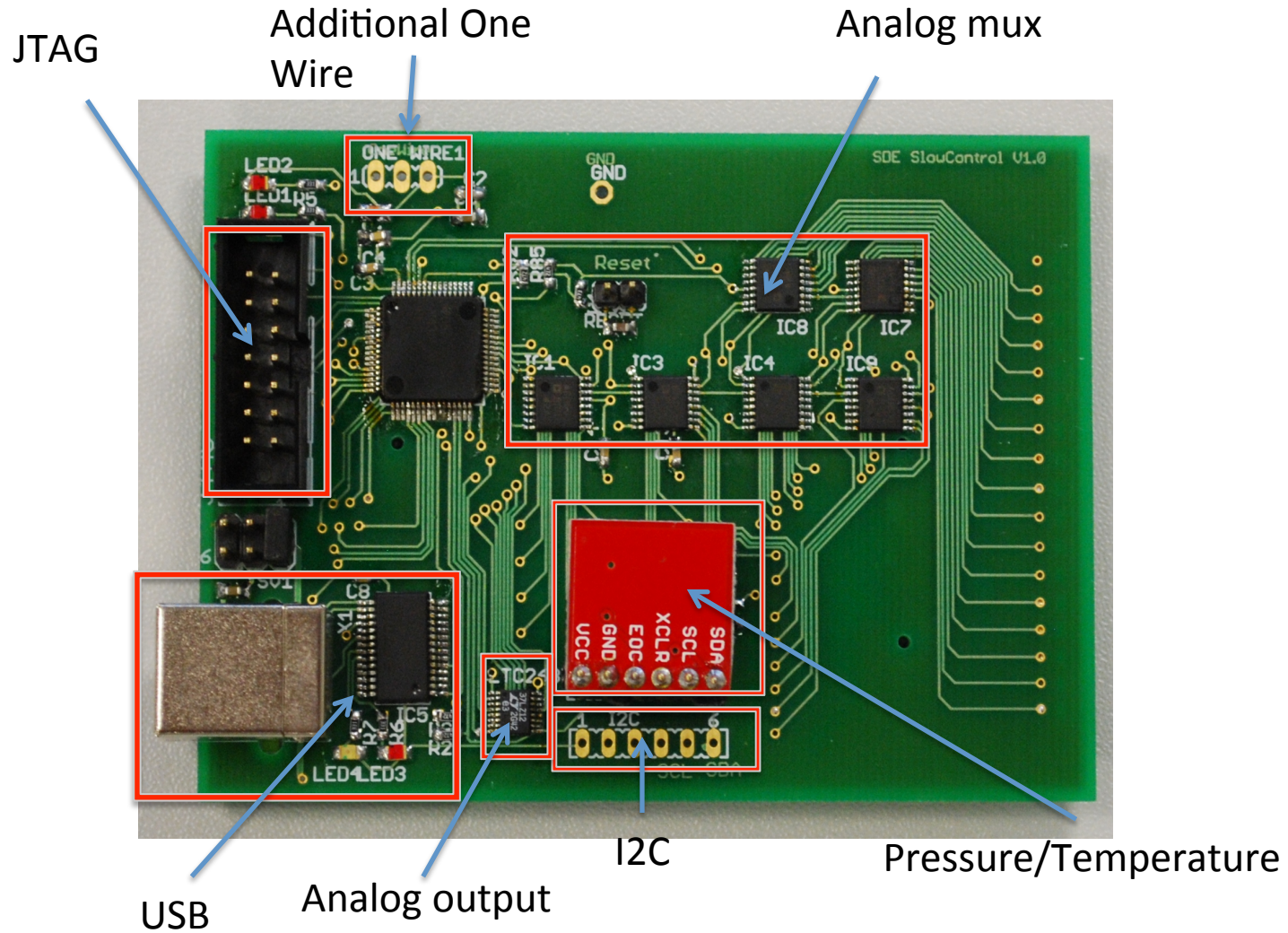


Note: Memory sizes and available peripherals and ports may vary depending on the selected device.

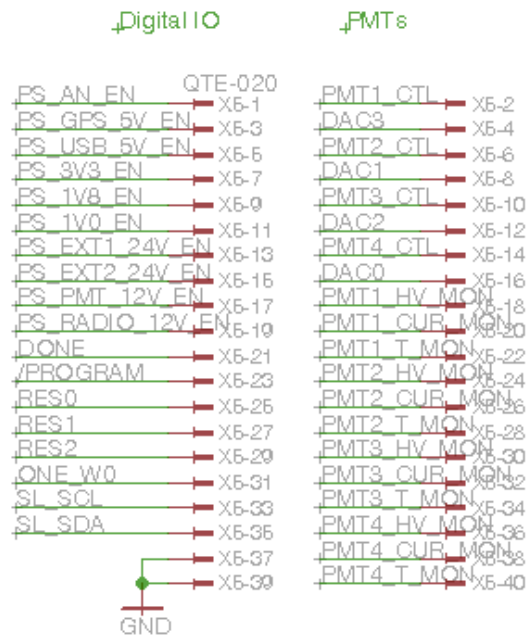
Slow Control Block Diagram



1st Version of Add On card ready

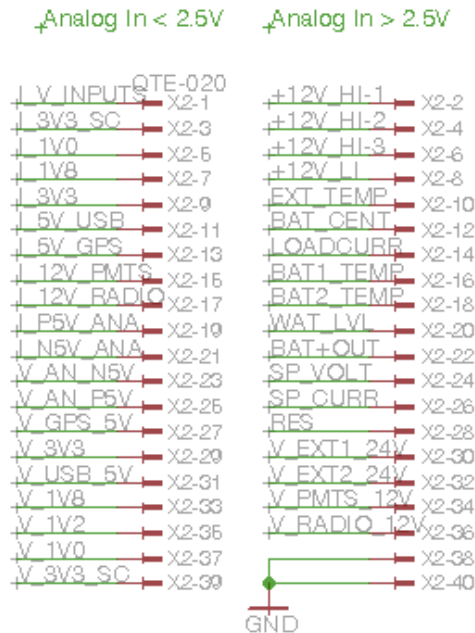


- 15 Digital IOs
- 3 Reserve
- 2 Ground



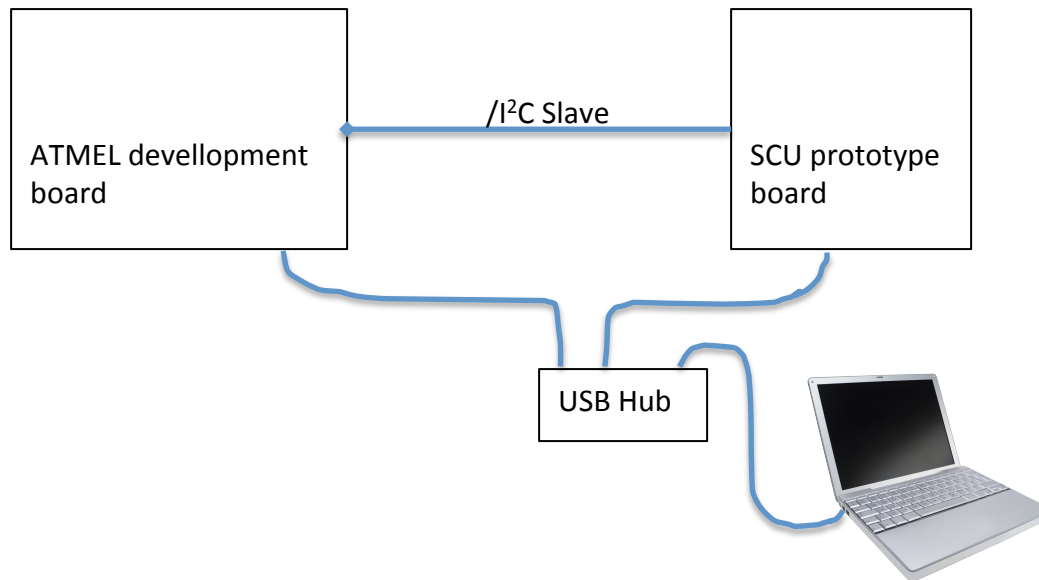
- 16 PMT signals
 - 1* DAC, 3*ADC per PMT
- 4 Reserve DAC channels

- 11 ADC Inputs (0-1V)
- 8 ADC Inputs (0-5V, -5-0V ...)
- 1 SC Power



- 18 ADC Inputs (0-5V, 0-24V, 0-12V)
- 2 Ground

Test Setup



- I²C Master -> SCU
- SCU -> I²C Slaves
DAC, EEPROM,
pressure sensor,
serial number
- OneWire
- ADC's
- USB interface

Design Status

- SCU integrated into UUB schematics
- available soon:
 - Register definitions
 - Header file
- Software development on UUB prototype