

Analog-to-Digital Converter

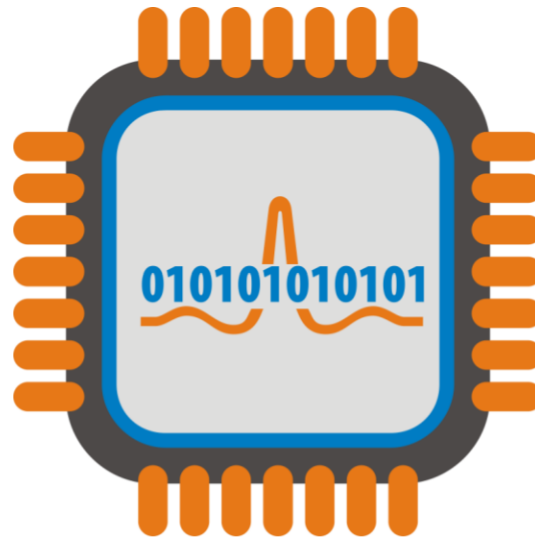
Networks and Embedded Software

Module 4.2.6

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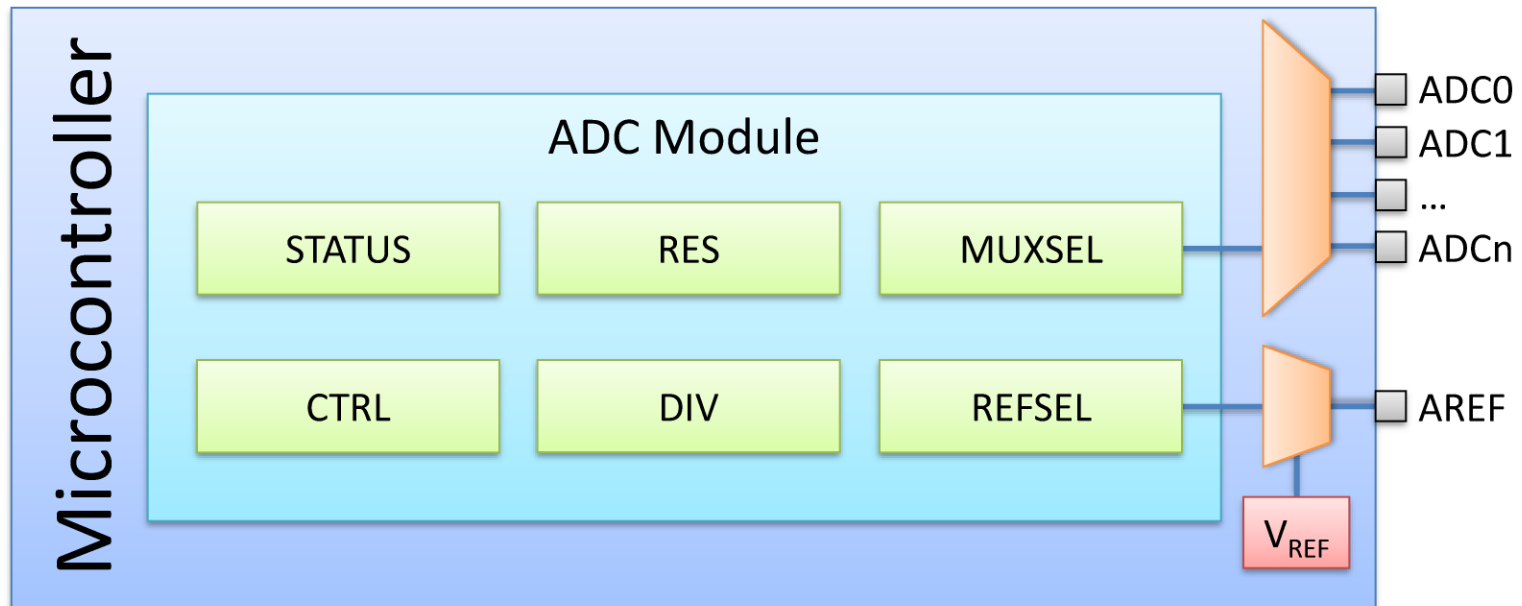
ADC (1)

- Application Area
 - Link Analog World with Digital World
 - Convert Analog Values to Digital Values



ADC (2)

- Register Mapping



ADC (3)

- Registers
 - Control
 - Input Selection Register (MUXSEL)
 - Selects analog input
 - Reference Selection Register (REFSEL)
 - Selects reference voltage
 - Clock Prescaler Register (DIV)
 - Controls conversion speed

ADC (4)

- Registers (continued)
 - Control (continued)
 - Control Register (CTRL)
 - Enables ADC
 - Selects conversion mode
 - Starts conversion
 - Status
 - Status Register (STATUS)
 - Conversion complete

ADC (5)

- Registers (finished)
 - Data
 - Conversion Result Register (RES)
 - Conversion result