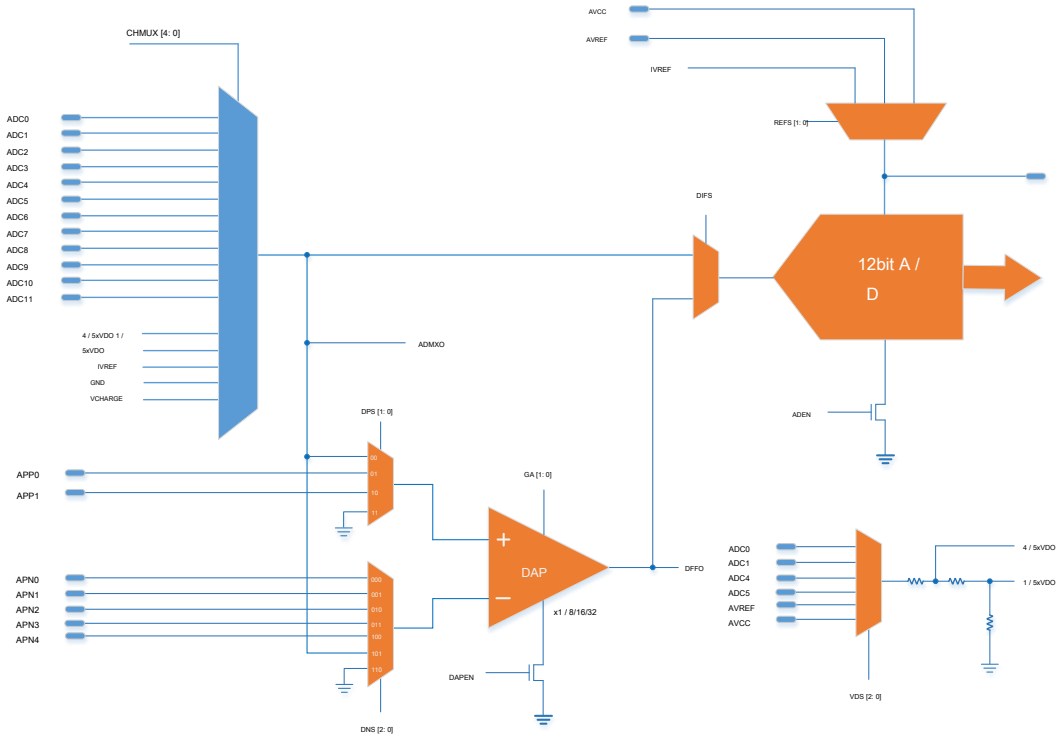
12 Bit analog to digital converter (ADC)

- **12 Bit resolution, DNL for ± 1LSB , INL for ± 1.5LSB**
- **The highest resolution at sample rates up 500KSPS**
- **12 Single-ended input channels multiplexed**
- Multiple input channel programmable gain differential amplifier
- **Input voltage range 0-VCC**
- **internal 1.024V / 2.048V / 4.096V The reference voltage**
- **stand by AVCC And an external reference voltage input**
- **Internal multiple-input 1/5 , 4/5 Dividing circuit**
- Offset calibration support positive and negative directions
- Converted automatically trigger mode based on the interrupt source
- Upper support overflow / automatic channel monitor
- Conversion results support optional alignment mode
- Conversion End Interrupt Request

Outline



ADC Structure chart

ADC is a 12 Bit successive approximation ADC . ADC And a 17 Channel Analog Multiplexer is connected to the port from outside the chip can 12 Analog inputs and 5 Internal voltage supply channel for sample conversion. ADC The internal integration of a programmable gain x1 / x8 / x16 / x32 The differential operational amplifier, the amplifier may be an external input port or

ADC Output of the multiplexer. Differential op amp as a result of ADC Analog input.

ADC Internal sources include analog input from a ADC Multiple internal divider input; internal reference voltage source; internal analog ground reference and the analog output from the touch key module. Internal multiplexed input while the output voltage divider 4/5 , 1/5 Two-way