Processor: STM32L431KCU6   **Part Number: 20-1003-STM32L431KCU6**
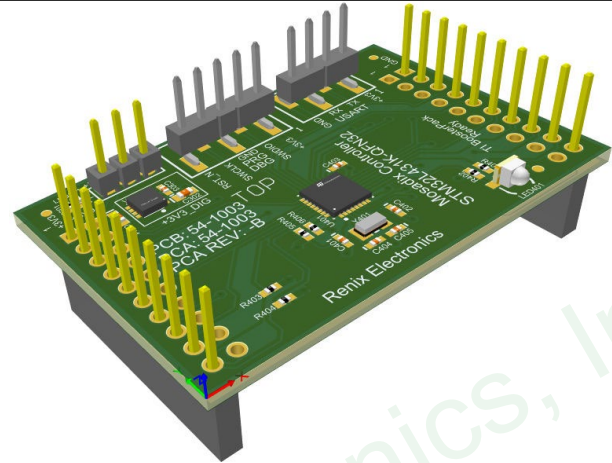
General Description

STMicroelectronics ARM 32-bit Cortex M4 Plugin Processor board is part of a Cost effective Evaluation Board family. Use Standalone or Stacked.

Stack it with one or more Interface & Sensor Boards to expand the functionality for different applications.

The interface connectors are designed to be compatible with LaunchPad Development Kits from Texas Instruments.

http://www.ti.com/ww/en/launchpad/launchpads.html

Processor Highlights

- Ultra-low-power Arm® Cortex®-M4 32-bit MCU+FPU
- 256 Kbytes of Flash memory, 64 Kbytes of SRAM
- 25 GPIO
- 11x timers: 32-bit and 16-bit, Watchdog timer 16x communication interfaces
- 2 UART - (RX/TX)
- 1 I2C (SDA, SCK)
- 1 SPI (MOSI, MISO, CLK)
- 6 channels PWM output
- 1 x 12-bit, 1.0 µs ADC (up to 16 channels)
- One 12-bit D/A converter (DAC)
- Two fast low-power analog comparators
- Capacitive sensing channels

Data sheets for the Processor can be found on STMicroelectronics's website

https://www.st.com/resource/en/datasheet/stm32l431kc.pdf

Function on Connectors

- 2 Analog Input
- 1 UART - (RX/TX) to IO Connector
- 1 UART - (RX/TX) to IO Output/Debug
- 3 GPIO
- 2 GPIO Parallel with LEDs (RED GREEN)
- 1 GPIO Used as RST
- 1 GPIO Used as CLK Output
- 1 SPI (MOSI, MISO, CLK) with SS1/SS2
- 1 I2C (SDA, SCK)
- 1 PWM Output
- 1 DAC Output

Crystal – 32.7680KHZ

Internal multispeed 100 kHz to 48 MHz oscillator, auto-trimmed by LSE (better than ±0.25 % accuracy).

Power Supply

User can supply +5V0 via P301
Onboard +3V3 1A LDO powers the Controller and I/O Power