DEV-IIOTC CutiPy™

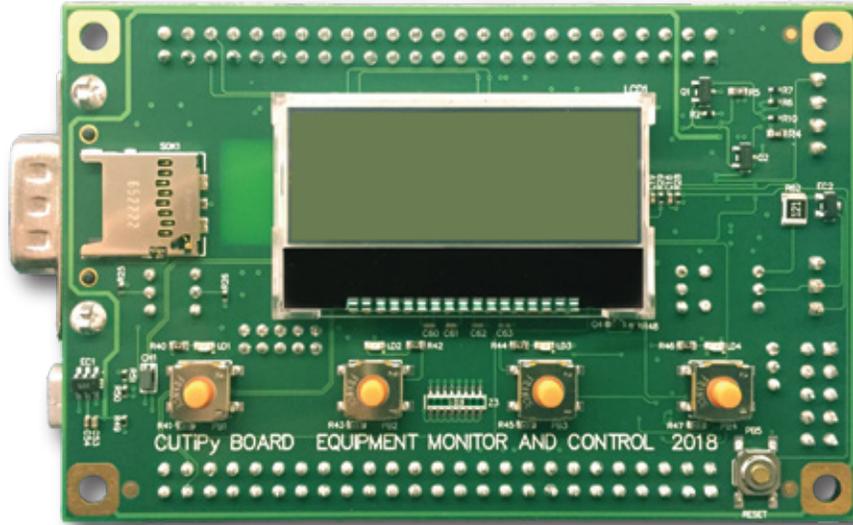Get started developing at: wiki.emacinc.com

Features

- STM32F407IGH6 ARM Cortex-M4
- 168MHz w/Math Coprocessor
- 192KB of SRAM, Up to 1MB of Flash
- RTC with battery backup & Temperature Sensor
- 16x External Dedicated GPIOs (64x fully allocated)
- 4x Serial Ports, USB, SDIO, A/D, SPI, I2C & CAN
- Wi-Fi and BLE
- MicroPython & FreeRTOS

Specifications

Processor	STM32F407IGH6 ARM Cortex-M4 w/Math Coprocessor
	168 MHz
Memory	192 KB of SRAM
	Up to 1MB of Flash
I/O	16x External Dedicated GPIOs (64x fully allocated)
	1x microSD Card Slot
	1x CAN 2.0B Port (Internal Shared w/Transceiver, External Shared w/o Transceiver)
	2x USB 2.0 Full Speed OTG Ports (1x Internal, 1x External)
	4x Serial Ports (1x RS232 Internal, 1x RS232/485 Internal, 2x TTL Shared)
	2x SPI Ports (1x Internal, 1x External)
	3x I2C hardware Ports (1x Internal, 2x External)
	24x Timer/Counters/PWM/Capture
	RTC with on-board battery backup & Temperature Sensor
	1x Reset Button and 2x Dual Color Status LEDs
	Graphic 132x32 LCD with 4x pushbuttons & 4x LEDs (Optional)
Analog	13x A/D Channels with 12-bit Resolution (3 Unique A/Ds)
	2x D/A Channels with 12-bit Resolution
Wireless	802.11 a/b/n Wi-Fi
	Bluetooth Low Energy (BLE)
Expansion	2x 50 pin Female Expansion Connectors
Software	MicroPython or FreeRTOS
Dimensions	2.25" x 3.5"
Power Req.	5Vdc
	49.5mA with 3.7 volts supplied through the battery terminal
Environment	-40° to +85° C Industrial Temperature - Power Recharging
	90% Operating Humidity non-condensing

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Ordering Information

PRODUCT #	CPU	MEMORY	SERIAL	GPIO	USB	ANALOG	WIRELESS	TEMPERATURE
DEV-IIOTC-000 using IOT-F407C-001 microPython	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM, 1MB Flash	4x, 1x RS232 1x RS485 2x TTL	16x, 8x Hi-Drive	2x OTG Full Speed	13x Channels 12-bit A/D 2x Channels 12-bit D/A	Wi-Fi, BLE, With LCD	-40° to 85° C
DEV-IIOTC-010 using IOT-F407C-011 FreeRTOS	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM, 1MB Flash	4x, 1x RS232 1x RS485 2x TTL	16x, 8x Hi-Drive	2x OTG Full Speed	13x Channels 12-bit A/D 2x Channels 12-bit D/A	Wi-Fi, BLE, With LCD	-40° to 85° C

Packing List

PRODUCT #	Accessories
PER-MIS-0005	2.4GHz wifi antenna & 20cm cable
PER-PWR-0101PR	Battery LI-ION Rechargeable 3.7V 1.2AH
CAB-40-015	USB micro to USBA debug and programming cable
CAB-35-001	DB9 to 10 pin Idc second serial port cable
PER-ADP-0031P	STLINK/V2 Programmer Bundle allows USB programming of ST32 processors (*only included in DEV-IIOTC-010)