

Features

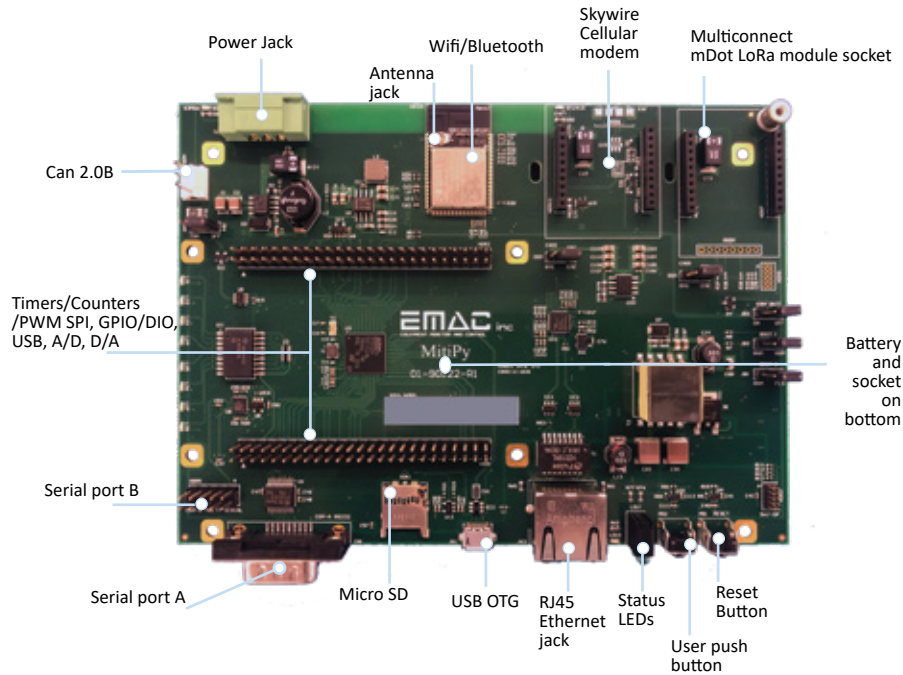
- STM32F407IGH6 ARM Cortex-M4 168MHz w/Math
- 192KB of SRAM and 1M of Flash
- 16x External Dedicated GPIOs (64x fully allocated)
- 1x 10/100 BaseT Ethernet & POE (Optional)
- 4x Serial Ports, USB, SDIO, A/D, SPI, I2C & CAN
- Wi-Fi, BT, Cell Modem, LORA, 2x XBee sockets
- MicroPython & FreeRTOS



Specifications

Processor	STM32F407IGH6 ARM Cortex-M4 with Math Coprocessor 168 MHz
Memory	192 KB of SRAM 1MB of Flash
I/O	16x External Dedicated GPIOs (8x Hi-Drive; 64x fully allocated) 1x microSD Card Slot 2x CAN 2.0B Port (1x with CAN Transceiver, 1x Shared w/o Transceiver on I/O Connector) 2x USB 2.0 Full Speed OTG Ports (1x mini USB Connector, 1x I/O Connector) 4x Serial Ports (1x RS232 DB9, 1x RS232/485 10-pin header, 2x TTL on I/O Connector) 2x SPI Ports 3x I2C hardware Ports 24x Timer/Counters/PWM/Capture/GPIOs RTC with on-board battery backup 1x Reset Button Temperature Sensor
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 with on-board & external antenna provision Bluetooth Low Energy (BLE) 5.0 Skywire Cellular Modem Module Socket (Cellular Modem Optional)
Expansion	2x 50 pin Female Expansion Connectors, XBee socket for LORA or other xBee multiconnect module Socket Connectivity
Software	MicroPython & FreeRTOS
Dimensions	4.0" x 6.0"
Power Req.	8Vdc to 32Vdc or POE Typical Running Current Consumption (TBD)
Environment	-40° to +85° C Industrial Temperature 90% Operating Humidity non-condensing





Ordering Information

PRODUCT #	CPU	MEMORY	SERIAL	GPIO	USB	ANALOG	CONNECTIVITY	TEMPERATURE
IOT-F407M-007 MicroPython	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM 1MB of 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	1x 10/100 BaseT Ethernet No Radios	-40° to +85° C
IOT-F407M-000 MicroPython	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM 1MB of 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	1x 10/100 BaseT Ethernet Wi-Fi, BLE	-40° to +85° C
IOT-F407M-001 MicroPython	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM 1MB of 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	1x 10/100 BaseT Ethernet POE Wi-Fi, BLE	-40° to +85° C
IOT-F407M-017 FreeRTOS	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM 1MB of 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	1x 10/100 BaseT Ethernet No Radios	-40° to +85° C
IOT-F407M-010 FreeRTOS	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM 1MB of 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	1x 10/100 BaseT Ethernet Wi-Fi, BLE	-40° to +85° C
IOT-F407M-011 FreeRTOS	STM32F407IGH6 ARM Cortex-M4 168 MHz	192 KB SRAM 1MB of 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	1x 10/100 BaseT Ethernet POE Wi-Fi, BLE	-40° to +85° C

Optional Accessories

PRODUCT #	Accessories
PER-MIS-0005	2.4GHz wifi antenna & 20cm cable
PER-ADP-00031P	STLINK/V2 Programmer Bundle allows USB programming of ST32 processors (*required for FreeRTOS programming)
CAB-40-015	USB micro to USBA debug and programming cable
CAB-35-001	DB9 to 10 pin Idc second serial port cable

