

XCore407I, STM32F4 Core Board



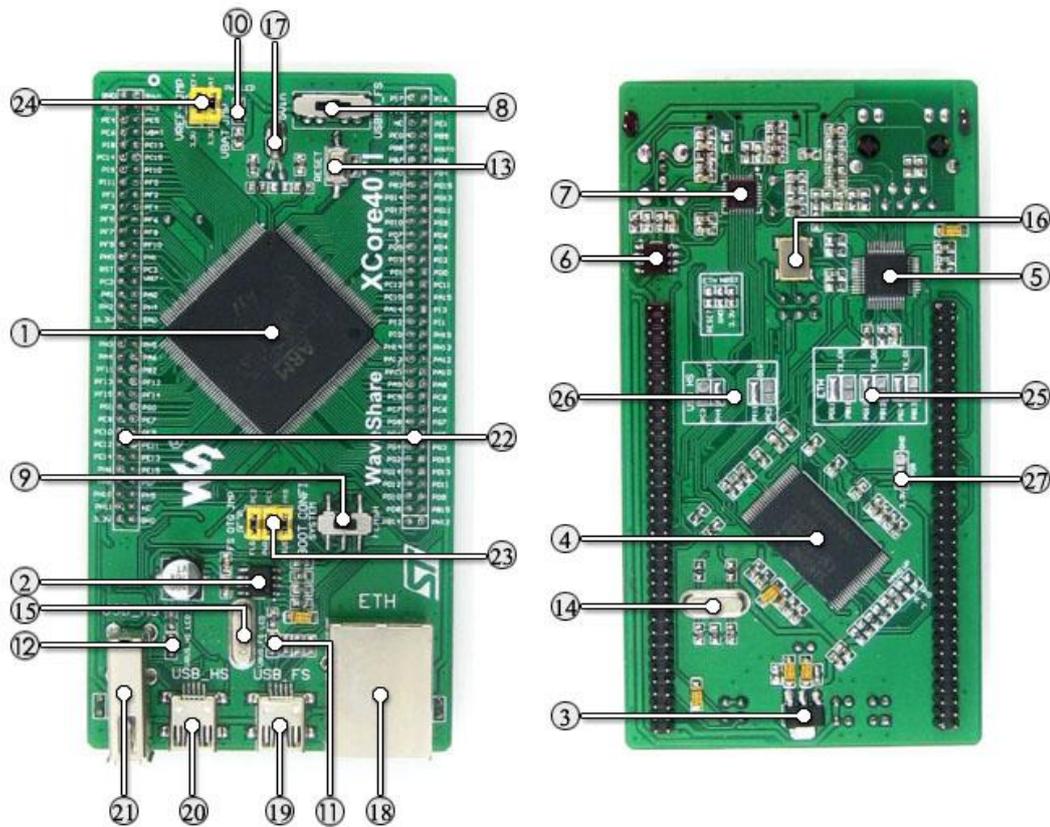
Overview

XCore407I is an STM32 MCU core board that features the **STM32F407IGT6** on board.

- Clock circuit, USB power management
- Onboard devices: USB HS PHY、 Ethernet PHY、 1G Bit NandFlash
- Connectors : USB HS (mini / type A), USB FS (mini), Ethernet (RJ45)
- All the idle I/O ports are accessible on the pin headers
- 2.0mm pin header pitch, smaller size, easier to integrate into user system

Note : please consider the [EVK407I](#), which supports easily programing/debugging.

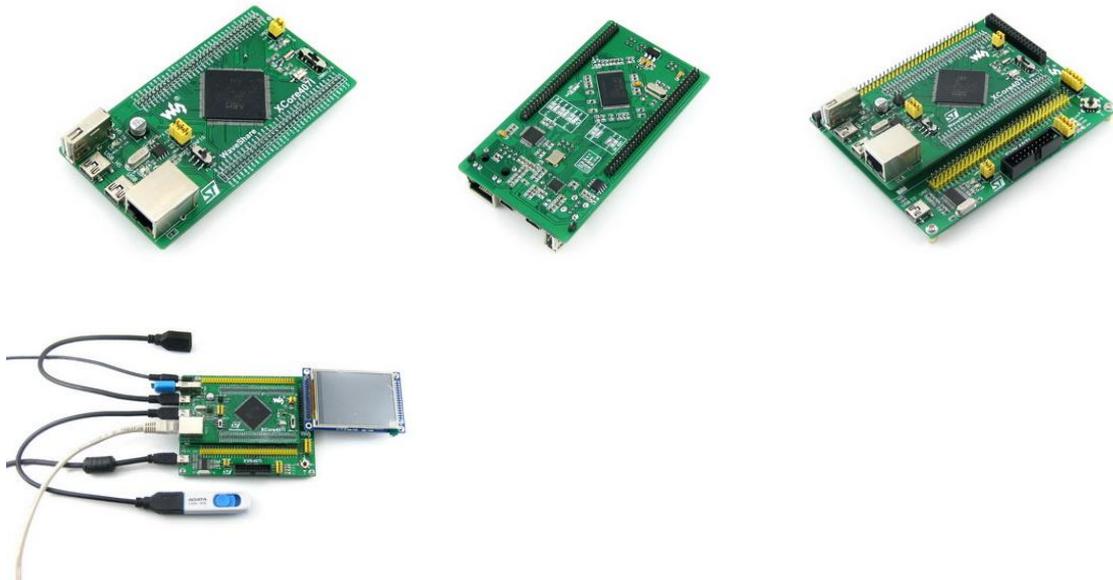
What's On Board



1. STM32F407IGT6: the high performance STM32 MCU which features:
 - **Core:** Cortex-M4 32-bit RISC
 - **Feature:** a full set of single-cycle DSP instructions
 - **Operating Frequency:** 168MHz, 210 DMIPS/1.25 DMIPS/MHz
 - **Operating Voltage:** 1.8V-3.6V
 - **Package:** LQFP176
 - **Memories:** 1024kB Flash, 192+4kB SRAM
 - **MCU communication Interfaces:**
 - 3 x SPI, 4 x USART, 2 x UART, 2 x I2S, 3 x I2C
 - 1 x FSMC, 1 x SDIO, 2 x CAN
 - 1 x USB 2.0 high-speed/full-speed device/host/OTG controller with dedicated DMA, ULPI and on-chip full-speed PHY
 - 1 x 10/100 Ethernet MAC
 - 1 x 8 to 14-bit parallel camera interface
 - **AD & DA converters:** 3 x AD (12-bit, 1 μ s, shares 24 channels); 2 x DA (12-bit)
 - **Debugging/Programming:** supports JTAG/SWD (serial wire debug) interfaces, supports IAP
2. MIC2075-2, onboard USB FS power management device
3. AMS1117-3.3, 3.3V voltage regulator
4. K9F1G08U0D, 1G Bit NandFlash
5. DP83848, Ethernet PHY
6. MIC2075-1, onboard USB HS power management device
7. USB3300, USB HS PHY
8. Power supply switch, powered from 5Vin or USB connection
9. Boot mode switch, for configuring BOOT0 pin

10. Power indicator
11. USB FS LED
12. USB HS LED
13. Reset button
14. 8M crystal, MCU clock, enables the MCU run at higher speed by frequency multiplication
15. 24M crystal, USB3300 clock
16. 50M crystal, DP83848 clock
17. 32.768K crystal, for internal RTC with calibration
18. Ethernet connector
19. USB FS mini connector
20. USB HS mini connector
21. USB HS type A connector
22. MCU pins expander, VCC, GND and all the idle I/O ports are accessible on expansion connectors for further expansion
23. USB OTG/HOST jumper
24. VREF/VBAT jumper
25. Ethernet I/O selection solder joint
26. USB HS I/O selection solder joint
27. PDR selection solder joint: 1.8-3.6V, -40~105°C OR 1.7-3.6V, 0~70°C

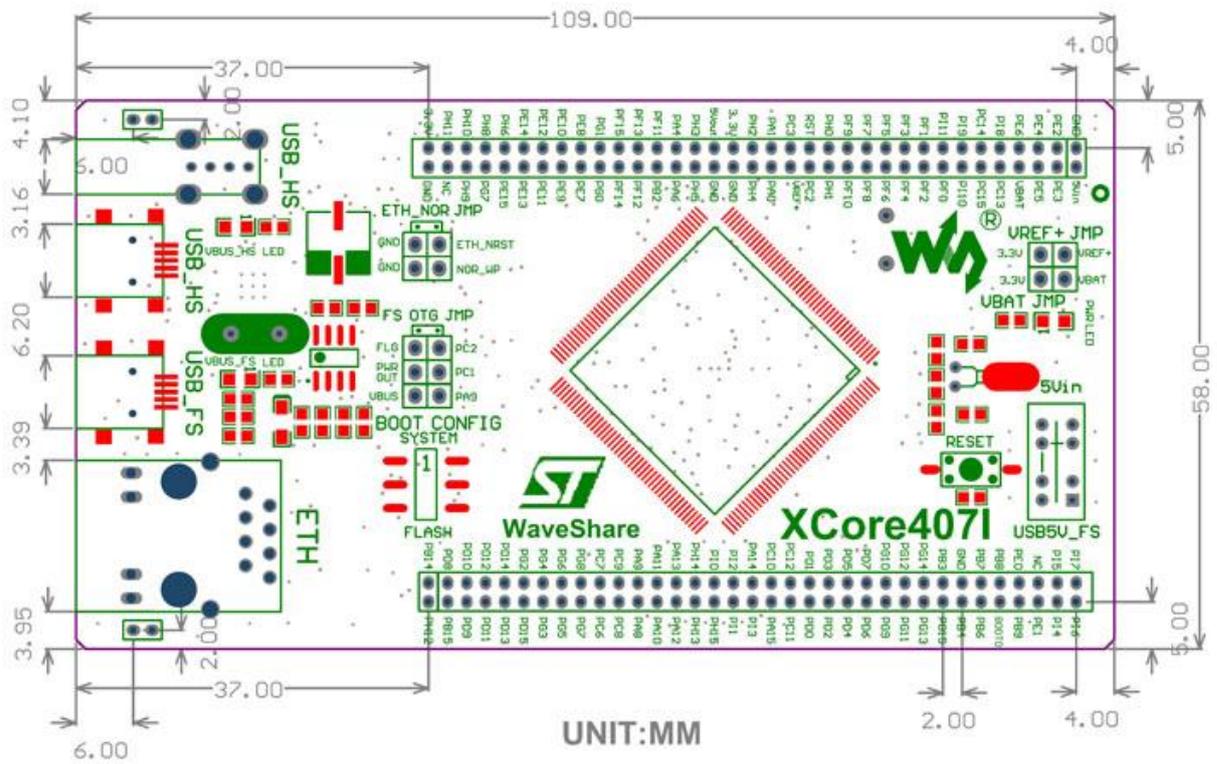
Photos



Note:

XCore407I does NOT integrate programing/debugging interface.
Mother board and accessories in the photos are NOT included in the price.

Dimensions



Development Resources

- Related software (KEIL etc.)
- Examples in C
- Schematic (PDF)
- Development documentations

Wiki: www.waveshare.com/wiki/XCore4071