



#### STM32F407VET6

STM32F407VET6 is designed and developed by STMicroelectronics. A high-performance microcontroller MCU. Employs industry-leading 32-bit flash memory with a floating-point unit. The application range is very wide, and it is one of the MCUs that are currently in short supply. For more original electronic components, please contact us !!!

The STM32F407VET6 features an ARM® 32-bit Cortex®-M4 CPU with FPU, Adaptive Real-Time Accelerator (ART Accelerator<sup>TM</sup>), allowing 0-wait-state execution from flash memory at frequencies up to 168 MHz. Features an Ethernet MAC and camera interface for CMOS sensors. Low power operation is divided into 3 modes sleep, stop and standby mode. Up to 24 channels and 7.2 MS PS•2×12-bit D/A converter in triple interleaved mode. In addition, the power saving mode kit is designed for low power applications. A variety of applications will be covered, including motor drives and application control, industrial applications: inverters, PLCs, scanners, HVAC, video intercoms, home audio equipment and medical equipment.

# **Product Features**

•Memory - Up to 1 MB Flash - Up to 192+4 KB SRAM including 64 KB CCM (Core Coupled Memory) Data RAM - Supports Flexible Static Memory Controller Compact Flash, SRAM, PSRAM, NOR and NAND memory LCD parallel interface, 8080/6800 mode

•Clock, reset and power management

- 1.8 V to 3.6 V application power and I/O
- POR, PDR, PVD and BOR 4- to 26 MHz crystal oscillator
- -Internal 16 MHz factory trimmed RC (1% accuracy)
- -32 kHz oscillator for RTC with calibration
- -Internal 32 kHz RC with calibration function Low power operation
- Hibernate, Stop and Standby modes

- VBAT power supply for RTC, 20×32-bit backup registers + optional 4 KB backup SRAM 3×12-bit, 2.4

MSPS A/D converter: up to 24 channels and 7.2 MS PS in triple interleaved mode  $2 \times 12$ -bit D/A converter

- •General purpose DMA: 16-stream DMA controller with FIFO and burst support
- •Up to 17 timers: up to 12 16-bit timers and 2 32-bit timers up to 168 MHz, each with up to 4 I2C/OC/PWM or pulse counters and quadrature (incremental) Encoder input

•Debug mode

- Serial Wire Debug (SWD) and JTAG interface
- Cortex-M4 Embedded Trace Macrocell<sup>TM</sup>
- •Up to 140 I/O ports with interrupt capability
- Shenzhen Zhen Rong Era Supply Chain Management Co., Ltd. Tel: <u>+86-755-83240078</u>

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-Up to 136 fast I/Os up to 84 MHz

-Up to 138 5 V tolerant I/Os

•Up to 15 communication interfaces

-Up to 3 I2C interfaces (SMBus/PMBus)

-Up to 4 USARTs/2 UARTs (10.5 Mbit/s, ISO 7816 interface, LIN, IrDA, modem control)

-Up to 3 SPI (42 Mbits/s), 2 with multiplexed full duplex I2S via internal audio PLL or external clock

 $-2 \times CAN$  interface (2.0B active)

-SDIO interface•Advanced connectivity

-USB 2.0 Full SpeedDevice/Host/OTG Controller with On-Chip PHY

-USB 2.0 Hi-Speed/Full-SpeedDevice/Host/OTG Controller with d edicated DMA, On-Chip

Full-SpeedPHY and ULPI

-10/100 Ethernet MAC with dedicated DMA: supports IEEE 1588v2 hardware, MII/RMII 8 to 14 bit parallel camera interface,

### **Product parameters**

| technical parameter | frequency                          | 168MHz      |
|---------------------|------------------------------------|-------------|
|                     | Supply voltage (DC)                | 1.80V (min) |
|                     | Operating Voltage                  | 1.8V-36.V   |
|                     | Number of pins                     | 100         |
|                     | RAM size                           | 196KB       |
|                     | number of digits                   | 32          |
|                     | FLASH memory capacity              | 512KB       |
|                     | Analog to Digital Conversion (ADC) | 3           |
|                     | Number of inputs/outputs           | 82lnput     |
|                     | Working temperature (Max)          | 85℃         |
|                     | Working temperature (Min)          | -40°C       |
|                     | Analog to Digital Conversion (DAC) | 1           |
|                     | package                            | LQFP-100    |
|                     | Packing                            | Tray        |

## **Product Image**





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# FAQ

- Q: Does your company have professional inspectors?
- A: Yes, in order to ensure product quality, we employ a number of professional engineers.

Q: How big is your warehouse?

A: The warehouse area of our company is 500m2, and we have a lot of stock.

Q: How do you ensure the safe transportation of goods?

A: We cooperate with professional multinational logistics companies to ensure the safety of cargo transportation.

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