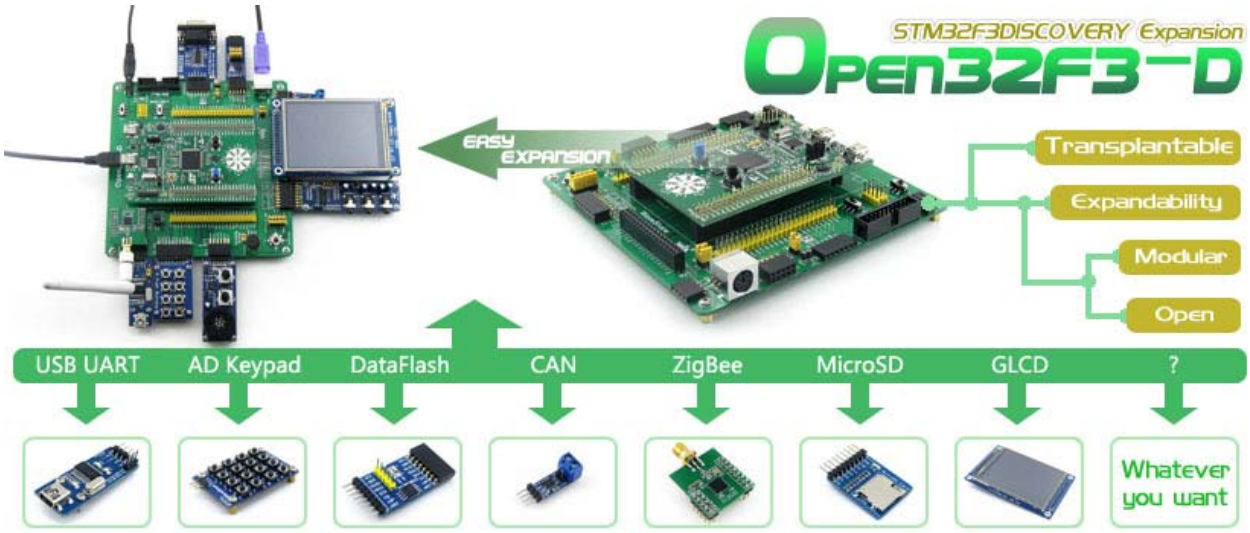
# Open32F3-D Package B

**DVD с ПО и примерами можно скачать по ссылке:**

https://mega.co.nz/#!Jc0XBSSJ!94-hAujX5jAs29t4q7VTth4PmF74IBBRwtnESeEIRN4




## Overview

Open32F3-D is an STM32 development board designed for the ST official tool **STM32F3DISCOVERY**, which features the **STM32F303VCT6** microcontroller onboard.

The Open32F3-D supports further expansion with various optional accessory boards for specific application. The modular and open design makes it the ideal for starting application development with STM32F3 series microcontrollers.

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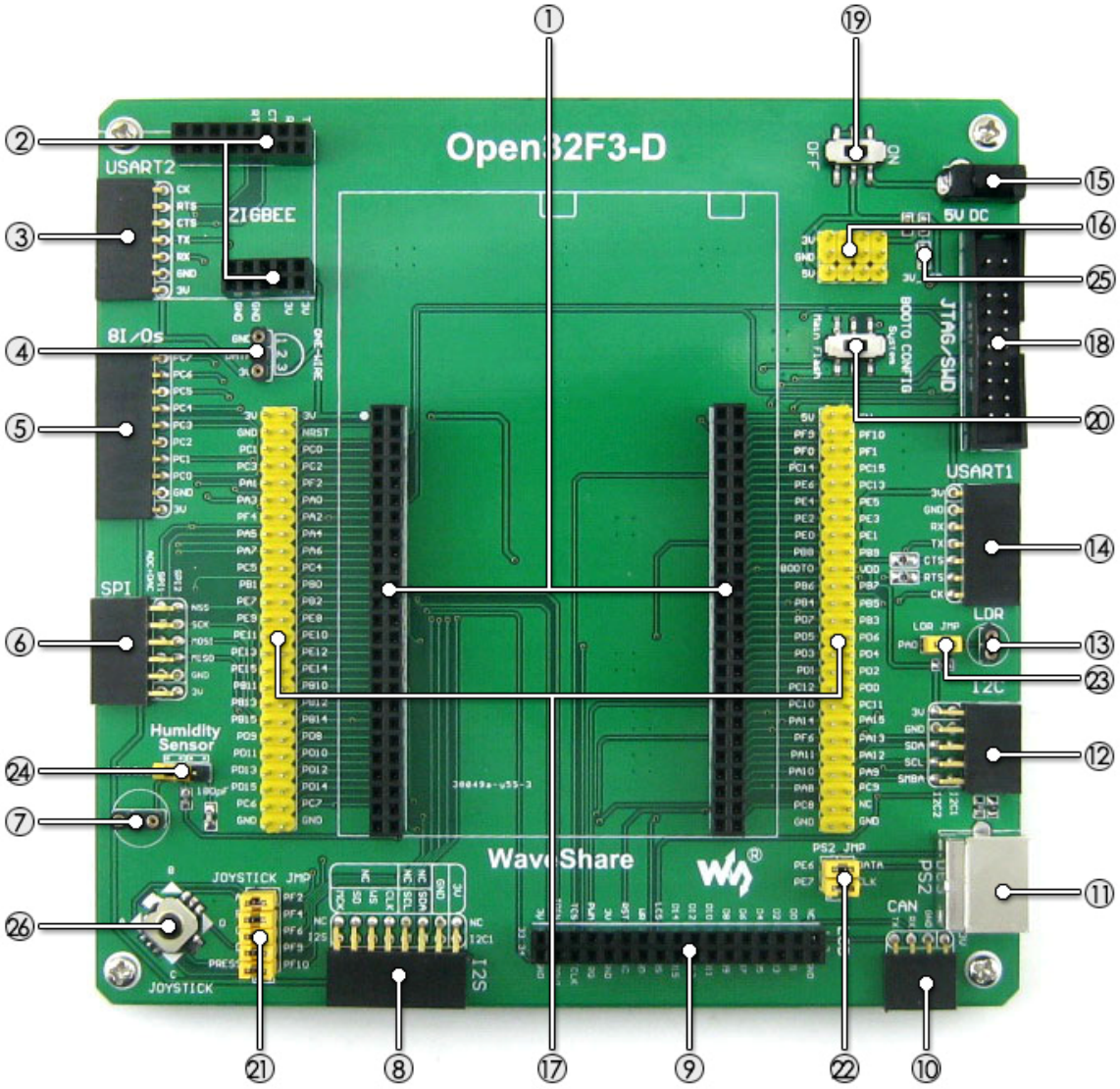
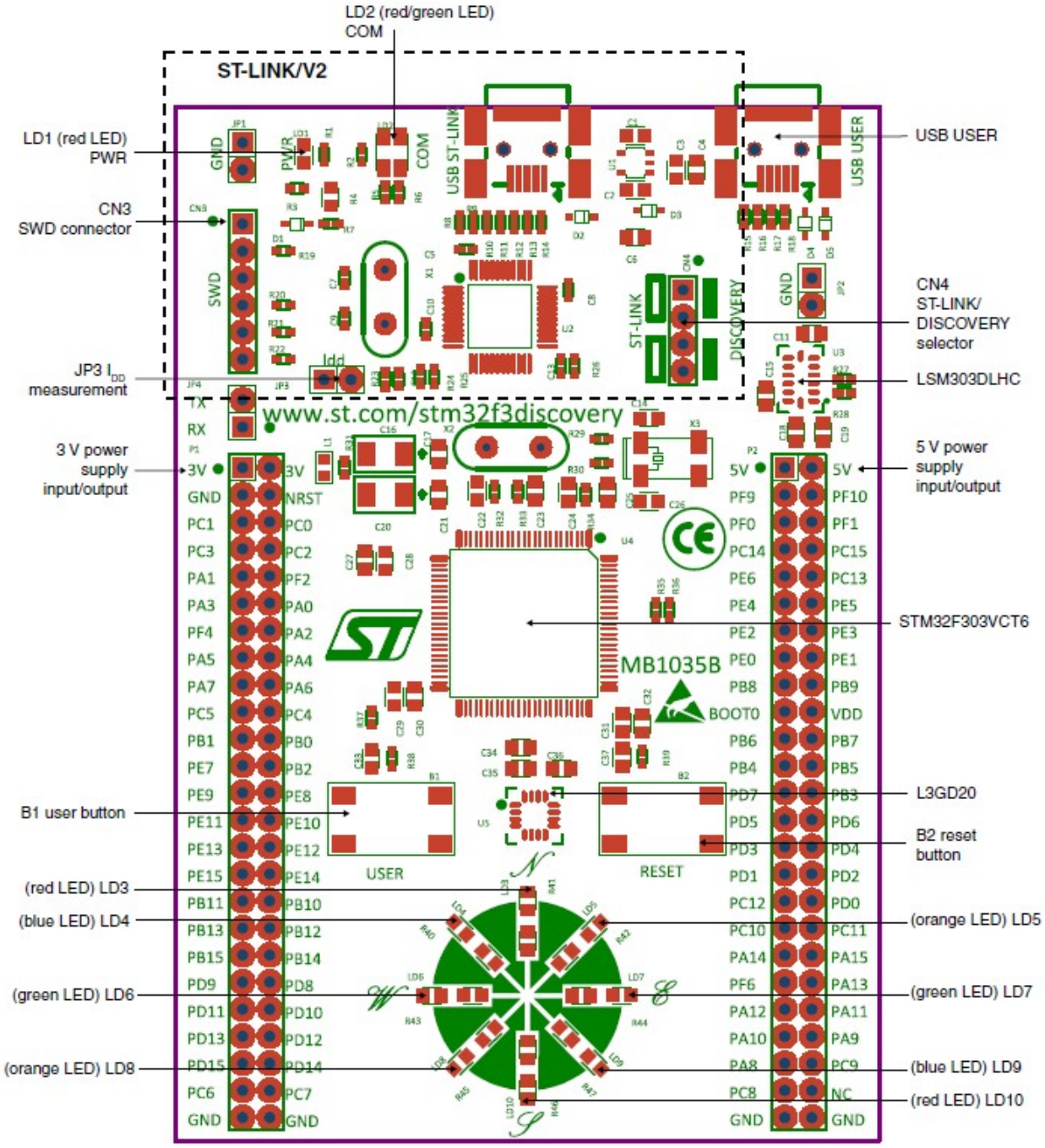
## What's on the mother board




1. STM32F3DISCOVERY socket: for easily connecting the STM32F3DISCOVERY
2. ZigBee interface: for connecting ZigBee modules such as CC2530 module.
3. USART2 interface: easily connects to RS232, RS485, USB TO 232, etc.
4. ONE-WIRE interface: easily connects to ONE-WIRE devices (TO-92 package), such as temperature sensor (DS18B20), electronic registration number (DS2401), etc.
5. 8I/Os interface: for connecting accessory boards such buttons, motors, etc.
6. SPI1 / SPI2 + DAC + ADC interfaces:
    - easily connects to SPI peripherals such as DataFlash (AT45DBxx), SD card, MP3 module, etc.
    - easily connects to AD/DA modules
7. Humidity sensor socket: for connecting humidity sensor such as HS1101LF, etc.
8. I2S / I2C1 interface: easily connects to I2S peripherals such as audio module, etc.
9. LCD connector: for connecting touch screen LCD
10. CAN interface: communicates with accessory boards which feature the CAN device conveniently
11. PS/2 interface: easily connects to PS/2 keyboard and/or mouse
12. I2C1 / I2C2 interface: easily connects to I2C peripherals such as I/O expander (PCF8574), FRAM (FM24CLxx), etc.
13. Resistive sensor socket: for connecting resistive sensor such as photoresistor, etc.
14. USART1 interface: easily connects to RS232, RS485, USB TO 232, etc.

15. 5V DC jack
16. 5V/3.3V power input/output: usually used as power output, also common-grounding with other user board
17. MCU pins connector: all the MCU I/O ports are accessible on expansion connectors for further expansion
18. STM32-JTAG/SWD interface: for STM32 debugging/programming
19. ZigBee-JTAG interface: for ZigBee debugging/programming
20. Power switch
21. Boot mode switch: for configuring BOOT0 pin
22. Joystick jumper
    - short the jumper to connect the joystick to default I/Os used in example code
    - open the jumper to connect the joystick to custom I/Os via jumper wires
23. PS/2 interface jumper
    - short the jumper to connect the PS/2 devices to default I/Os used in example code
    - open the jumper to connect the PS/2 devices to custom I/Os via jumper wires
24. LDR jumper
    - short the jumper to use resistive sensor, certain I/Os are required
    - open the jumper to disconnect from the I/Os
25. Humidity jumper
    - connect the left two pins to retrieve data from capacitive sensor
    - connect the right two pins to retrieve data from 180p capacitor (for testing)
26. Power indicator
27. Joystick: five positions
28. ZigBee reset

## What's on the STM32F3DISCOVERY




- STM32F303VCT6 microcontroller featuring 256 KB Flash, 48 KB RAM in an LQFP100 package
- On-board ST-LINK/V2 with selection mode switch to use the kit as a standalone ST-LINK/V2 (with SWD connector for programming and debugging)
- Board power supply: through USB bus or from an external 3 V or 5 V supply voltage
- External application power supply: 3 V and 5 V
- L3GD20, ST MEMs motion sensor, 3-axis digital output gyroscope
- LSM303DLHC, ST MEMs system-in-package featuring a 3D digital linear acceleration sensor and a 3D digital magnetic sensor
- Ten LEDs:
    - LD1 (red) for 3.3 V power on
    - LD2 (red/green) for USB communication

    - Eight user LEDS, LD3/10 (red), LD4/9 (blue), LD5/8 (orange) and LD6/7 (green)
- Two pushbuttons (user and reset)
- USB USER with Mini-B connector
- Extension header for all LQFP100 I/Os for quick connection to prototyping board and easy probing

Note:
The STM32F3DISCOVERY integrates ST-LINK/V2 for programming/debugging (SWD only).

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## JTAG/SWD interfaces

The figure 1, and 2 show the header pinouts of JTAG/SWD interface

**Figure 1.** JTAG Header Pinout

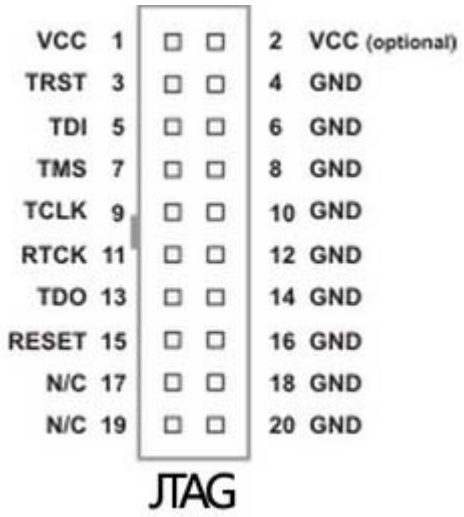


**Figure 2.** SWD Header Pinout