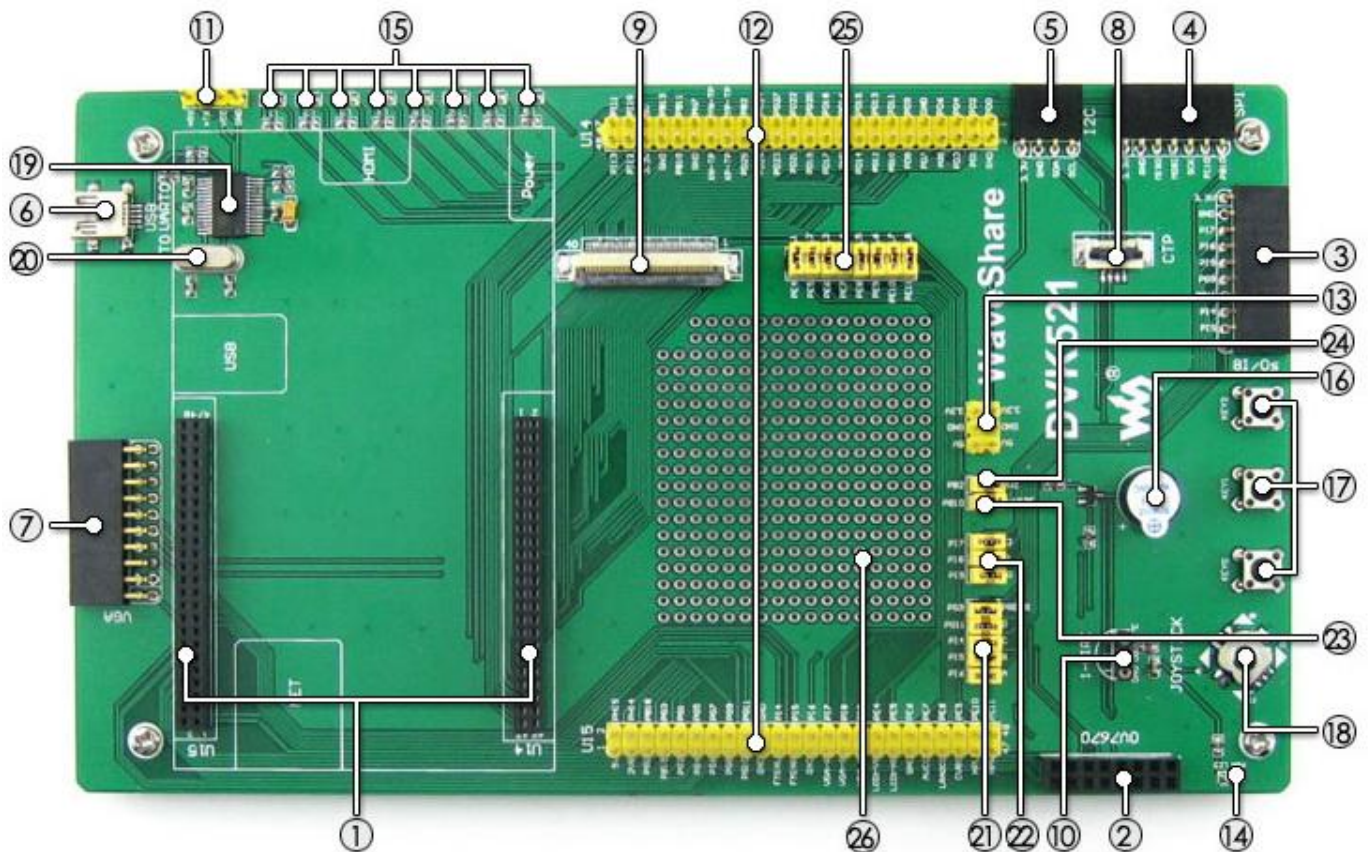
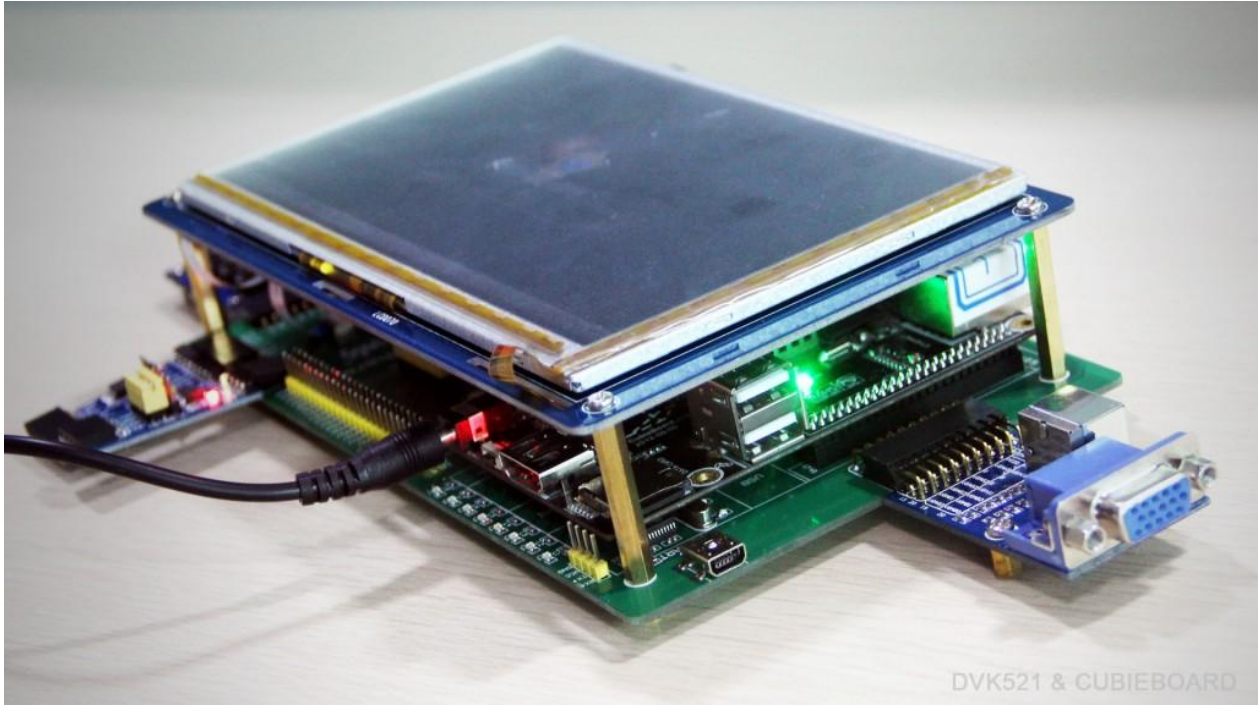


# DVK521 Cubieboard 1/2

## Overview

DVK521 is an expansion board designed for Cubieboard, integrates various components and interfaces for connecting external accessory boards. It's ideal for Cubieboard evaluation and development.



1. Cubieboard socket
2. OV7670 interface: for connecting OV7670 Camera Module
3. 8I/Os interface: easily connects to modules controlled by I/Os, such as 8 Push Buttons
4. SPI interface: easily connects to SPI modules such as AT45DBXX Dataflash, etc.
5. I2C interface: easily connects to I2C modules such as PCF8574 Expansion Module, PCF8563 RTC Module, etc.
6. USB interface: USB TO UART, convenient for debugging
7. VGA interface: for connecting VGA display Module
8. Capacitive touch screen socket: for connecting capacitive touch screen using I2C interface
9. 7inch LCD interface: for connecting 7inch LCD
10. ONE-WIRE interface: easily connects to ONE-WIRE devices (TO-92 package), such as temperature sensor (DS18B20), electronic registration number (DS2401), etc.
11. UART interface (PL2303TA): connects to the UART interface of Cubieboard
12. Cubieboard Ext Ports
13. 5V/3.3 V power input/output: usually used as power output, also common-grounding with other user board
14. Power indicator
15. User LEDs
16. Buzzer
17. User Keys
18. Joystick: five positions
19. PL2303TA: onboard USB TO UART convertor
20. 12M crystal: for PL2303TA
21. Joystick jumper
22. User Keysjumper
23. ONE-WIRE jumper
24. Buzzer jumper
25. User LEDs jumper
26. Prototyping area: can be used to place user components for experiments

### For jumpers above:

- short the jumper to connect to I/Os used in example code
- open the jumper to connect to other custom pins via jumper wires



DVK521 Cubieboard expansion board



Connecting with touch screen LCD



Connecting with Cubieboard



Connecting with Cubieboard and accessory boards



Connecting to any accessory board you need

## Development Resources

The User Guide CD includes development resources listed as follow:

- User manual
- Development environment setup guide
- Kernel porting and configuration guide
- Drivers porting and configuration guide
- Schematic (PDF)
- Demo code drivers and API testing source code
  - Linux kernel driver source code, and the high-level API source code based on Linux
- Pre-configured Cubieboard image
  - ubuntu based on ARM chips, just burn it into SD card, it's ready to run
- Related documentations and software

## Examples

| Kernel/Peripheral          |
|----------------------------|
| AT24CXX EEPROM             |
| FM24CXX FRAM               |
| AT45DBXX DATAFLASH         |
| DS18B20 Temperature sensor |
| PL2303 USB TO UART         |
| 7inch multi-color LCD      |
| Capacitive touch screen    |
| OV7670 Camera              |
| VGA                        |
| Buzzer                     |
| Joystick                   |
| User keys                  |
| LED                        |

## Package Contains

1. 4-pin 2-pin wires pack x 1



2. USB type A plug to mini-B plug cable x 1



3. Ethernet Cable x 1



4. 40-pin FFC x 1



5. 4-pin FFC x 1



6. 1/4 inch LCD screws pack x 1



7. DVK521 x 1



8. 7inch Capacitive Touch LCD x 1



9. OV7670 Camera Board x 1



10. VGA PS2 Board x 1



11. AT45DBXX DataFlash Board x 1



12. FM24CLXX FRAM Board x 1



13. 8 Push Buttons x 1



14. DS18B20 x 1



For Some documents and guides, please visit below website:

<http://docs.cubieboard.org/tutorials/dvk521/start>

<http://www.waveshare.net/shop/Cubieboard-Package-B.htm>