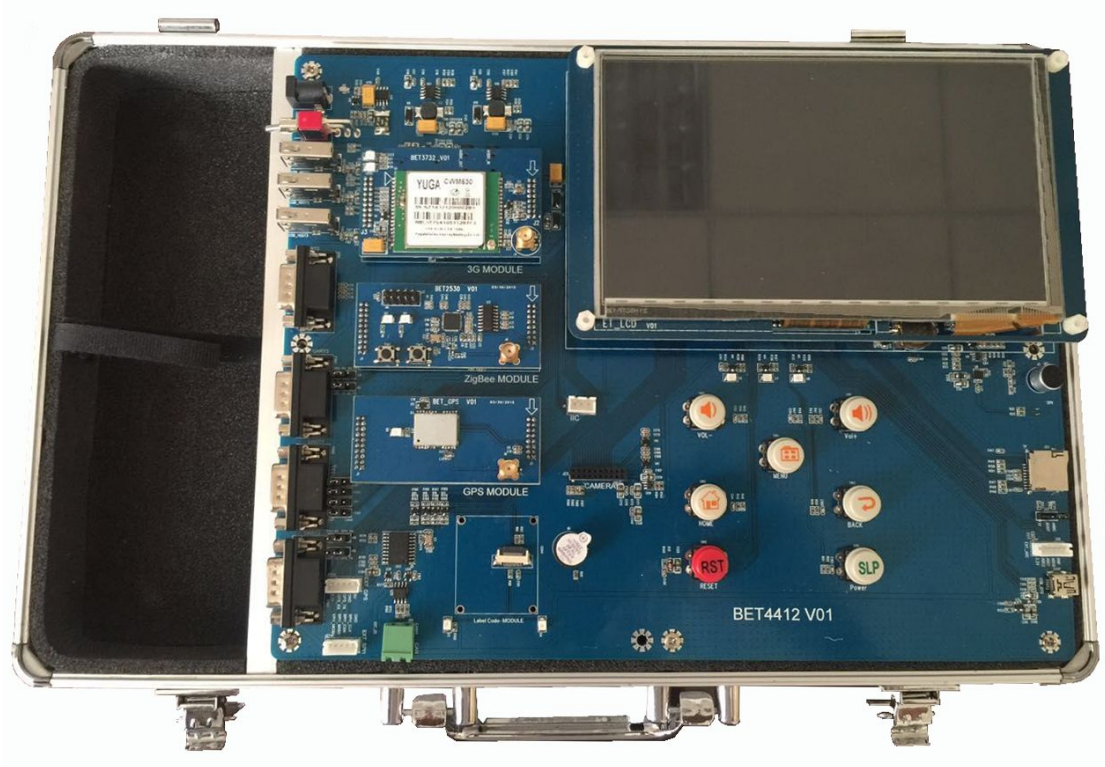


**The University Teaching and Scientific Research Experimental
Equipment /Education platform for IOT (the internet of things)
BET4412**



BET4412 IOT education platform is a very powerful high-end quad core box with ARM Cortex-A9. It adopts the newest Samsung Exynos4412 processor which presents Exynos series chips' powerful performance. With plenty of peripherals interface and rich open source software, it becomes the best scientific research equipment for the laboratory of colleges/ universities, scientific research institutions and ARM embedded training center...etc.

BET4412 IOT experiment box adopts Samsung Exynos4412 main chip, quad core Cortex-A9, 1.5 GHz, 1GB DDR3 (support 2GB) and 4/8/16GB iNand memory chips, with very good stability and reliability. It has these interfaces: Standard UART, USB, SD Card, Camera. And it also comes with external modules: GPS, VGA, 3G communication module (the latest version can support 4G module), ZigBee module, wireless module, WIFI module, BT module and gsensor module, etc. It supports HDMI 1.4 (1080p / 60Hz) Display and more capacitive multi-Touch Display at the same time.

BET4412 IOT experiment box works with ARM embedded platform, camera, all kinds of sensors to develop intelligent virtual instrument, navigation and positioning,

intelligent mobile phone, games and entertainment, personal photography, data acquisition and transmission, industrial control, medical equipment, advertising media, etc. It is suitable for ARM embedded, electronics, mobile communications, the Internet of things (including mobile), automotive electronic professional teaching and research. This platform has developed a series of solutions, such as: smart home, plant and animal raising, in-car communications and entertainment, with the functions of the local operation and remote monitoring expansion.

Software supported :

Uboot 2010

Linux 3.5

Android 4.2.2

Steps :

1.U-Boot transplant

- 1.1 U-Boot introduction
- 1.2 U-Boot's analysis and transplant
- 1.3 add U-Boot command
- 1.4 U-Boot Common commands introduction
- 1.5 U-Boot environment variable

2. Linux Kernel transplant

- 2.1 Linux Kernel introduction
- 2.2 Linux Kernel transplant and develop environment Ubuntu building
- 2.3 Linux Kernel transplant
- 2.4 Linux Kernel adjustment method

3. Android system architecture introduction and development environment setting up

- 3.1 Android system introduction

3.2 Android Application Development environment Eclipse setting up

3.3 Hello World

4. Android NDK development

4.1 Android NDK introduction

4.2 Android NDK environment setting up

4.3 Android NDK development

5. Android system transplant

5.1 Android original code download and development environment set up

5.2 Android file system compilation

5.3 Android file system Programmer

6. Android application design example

6.1 Android LED test

6.2 Android key test

6.3 Android Backlight test

6.4 Android UART communication test

6.5 Android Audio play and record test

6.6 Android ethernet communication test

Suitable for those majors :

Computer, automation, communication, electronic engineering, logistics management, the internet of things, etc