LIME2-SERVER

User Manual

Rev.1.1 April 2020

olimex.com

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What is LIME2-SERVER

LIME2-SERVER is low power ARM based server which has everything to run 24/7 and provide you with your own storage and cloud service.

You can run [OpenElec-KODI](#) image, [Debian](#) or [Ubuntu](#) Linux distribution with latest mainline kernel and on top of them you can run services like [NextCloud](#), [TOR](#) server, [Home Assistant](#), [Yunohost](#) thus being independent from cloud service suppliers and keeping your content in your hands.

The power consumption of LIME2-SERVER depend on it's load and can vary from 2 to 5W.

LIME2-SERVER comes pre-assembled and can be ordered with Hard disk of 500GB, 1000GB or 2000GB or with Solid State Disk with 512GB.

LIME2-SERVER has build-in UPS (Uninterruptible power supply) with Lithium Ion Battery and will continue to work for hours even if the external power supply is interrupted for some reason.

LIME2-SERVER package content

The LIME2-SERVER contains:

- A20-OLinuXino-LIME2 OSHW Linux computer

- BATTERY-LIPO1400mAh for power backup even if there is no external power supply

- 32 GB micro SD card

- 500GB/1000GB/2000GB HDD or 512GB SSD connected to SATA interface

- BOX-LIME-BLACK metal enclosure

- BAY-HDD/SSD metal enclosure with LIME2 SATA bridge board

- 1000MB Ethernet cable 1.2 meters

- 5V 2A Power adapter

LIME2-SERVER and BAY-HDD/SDD assembly guide

LIME2-SERVER comes completely assembled and tested, the next images are just for informational

purpose.

First step is to assembly top of BAY-HDD/SDD box with bottom part of BOX-LIME-BLACK:
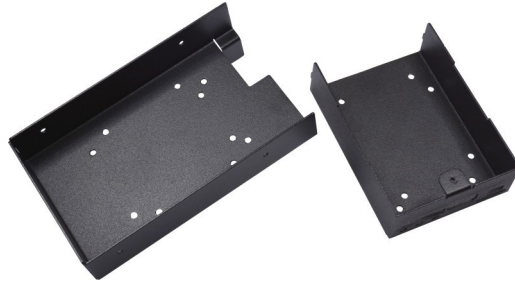
For this purpose four M3x4 screws and M3x6 hex nuts are used:

Then A20-OLinuXino-LIME2 board is placed and fixed with 4 M3x4 screws:

For the next step you need the HDD/SSD drive and the LIME2-SATA PCB which are part of LIME2-SERVER kit:
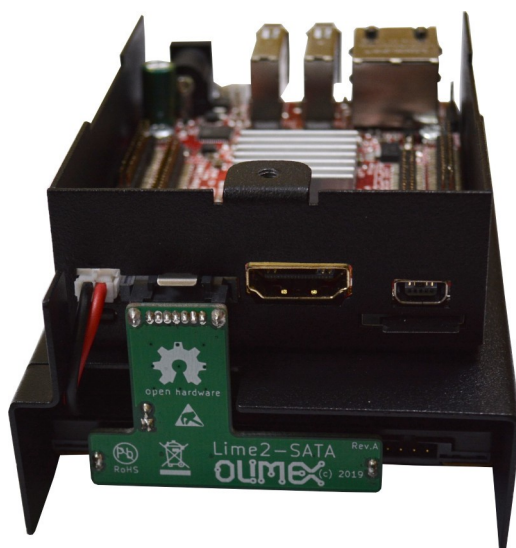

Attach the drive with four M3x4 mm screws at the sides:

Then snap the LIME2-SATA PCB and connect the power cable to JST2.0 connector:

then close the bottom metal cover and use HDD mout holes to attach with M3x10 screws:

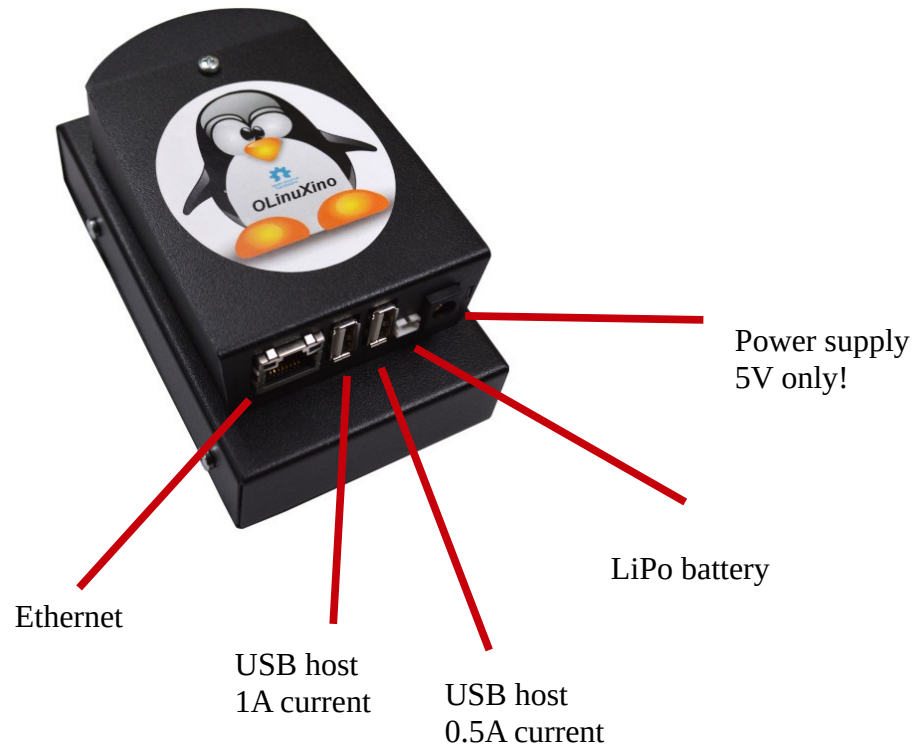and finally place the OLinuXno label on top:

LIME2-SERVER variants

We offer:

- LIME2-SERVER-NO-HDD if you have your own 2.5" HDD or SSD

- LIME2-SERVER-500GB-HDD with mechanical 2.5" 500GB drive

- LIME2-SERVER-1000GB-HDD with mechanical 2.5" 1000GB drive

- LIME2-SERVER-2000GB-HDD with mechanical 2.5" 2000GB drive

- LIME2-SERVER-512GB-SSD with solid state 2.5" 512GB drive

LIME2-SERVER connectors description

Power supply
5V only!

LiPo battery

Ethernet

USB host
1A current

USB host
0.5A current

HDMI

USB-OTG

32GB
microSD card

LIME2-SERVER battery installation

When you receive your LIME2-SERVER the LiPo battery will not be connected.

Unscrew the upper cover and connect the battery as shown on the picture below then re-attach the cover:

LIME2-SERVER software installation

Installing Ubuntu or Debian

Where to get the images? You can download our latest images from our [ftp repository](#).

Ubuntu 18.04 LTS Bionic and Debian 10 Buster are what we have.

Then you need [balenaEtcher](#) to write the image to micro SD card class 10. Download it and run. Point the source of the image and the SD card.

Insert the card in LIME2-SERVER and apply power supply.

You can login with HDMI/keyboard or SSH via USB-OTG.

Either connect USB keyboard and HDMI monitor either use USB cable to connect to USB-OTG connector and connect to the board.

Check which serial port is created with:

```
ls /dev/tty*
```

the port must be ttyACMx

connect to the board via this serial port

```
cu -l /dev/ttyACM0
```
Initial login is root 1234 after which you will be forced to change your password.

Installing KODI

Download the KODI image from our [ftp server](). Use [balenaEtcher]() to write the image to micro SD card class 10.

Insert the SD card and boot.

Installing NextCloud

Download [Armbian_5.92.4_Olinuxino-a20_Ubuntu_bionic_next_5.2.21_desktop.7z](#) and write it with [balenaEtcher](#) to blank micro-SD card.

Insert the card and boot.

Use Ethernet cable or WiFi dongle to connect to Internet.

Use USB cable to connect to USB-OTG connector and connect to the board.

Check which serial port is created with:

```
ls /dev/tty*
```

the port must be ttyACMx

connect to the board via this serial port

```
cu -l /dev/ttyACM0
```

Initial login is root 1234 after which you will be forced to change your password.

Get the install script from our ftp with:

```
wget ftp://staging.olimex.com/Allwinner_Images/A20-OLinuXino/5.%20NextCloud/
install_NextCloud.sh
```

then run the script:

```
chmod +x install_NextCloud.sh
```

```
./install_NextCloud.sh
```

at the end the scrip will run NextCloud server and will display the IP of the server.

Installing Yunohost

work in progress

Installing Home assistant

work in progress

Installing TOR

work in progress

LIME2-SERVER power consumption

A20-OLinuXino-LIME2 alone powe consumption at normal work is 0.3-0.5A.

If devices are connected to the USB ports this consumption should be taken into consideration. If you do not know power consumption of USB devices you can measure with USB-POWER-METER.

Note that USB1 host can source up to 1A, while USB2 host is restricted to 0.5A only. If you connect MOD-USB3G you should connect it to USB1.

The different HDD/SSD can use up to 1A power supply current in active state.

LIME2-SERVER comes with 5V / 2A power adapter which is sufficient for running the server with HDD.

Revision History

Revision 1.0 March 2020

Revision 1.1 April 2020