

#### **SOLIDRUN LTD**

# CuBox-i series

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http://www.solid-run.com/

# Quick User's Guide

## Contents of package

- One CuBox-i Miniature Computer.
- Optionally, one microSD card inserted in the CuBox-i with Android OS installed.
- Optionally, one power supply adapter (input: 110V-220V AC; output 5V DC)
- One Warranty note.
- One User Manual

Models covered by this User Manual:

I1-300-D, I1W-300-D, I2-300-D, I2W-300-D, I2eX-300-D, I2eXw-300-D and I4P-300-D

# Setting up the system

- 1. The CuBox-i boots from the microSD. If you purchased a microSD from SolidRun then skip to step #3.
- 2. When using your own micro SD device, we recommend a 4GB micro SD class4 or higher.
- 3. Skip to step #7 if you are using a SolidRun supplied power adapter.
- 4. Power Adapter: you may choose your own power adapter, make sure to use a power adapter with the following specification:
  - Regulated 5V supply with 2A source capacity (3A for I4P-300-D model).
  - 2.1mm internal diameter and 5.5mm external diameter. At least 10.5mm long.
  - Use only limited power source (LPS) power adapter with adequate protections.
     Power adapter should meet local safety regulations.
  - DO NOT USE 9V or 12V adapters or any other adapters with output voltage higher than 5V. These adapters will damage the CuBox-i and possibly other connected USB devices
- 5. <u>T</u>o run applications or distributions on your CuBox-i, you must install them on the microSD card. Visit this link for more details: <a href="http://cubox-i.com/install-os-on-micro-sd-flash-card/">http://cubox-i.com/install-os-on-micro-sd-flash-card/</a>
- 6. Once you have your CuBox-i, microSD and power adapter ready, insert the micro SD in the microSD slot with the microSD pins facing up.
- 7. Internet: If you have purchased I1-300-D, I1W-300-D, I2-300-D, I2W-300-D- first connect an Ethernet cable to your CuBox-i device. Models I2eX-300-D, I2eXw-300-D and I4P-300-D, can be connected via wireless or wired connection.
- 8. Connect the CuBox-i to a display screen via an HDMI cable.
- 9. Connect your power adapter to the DC jack, and then connect the adapter to mains supply.

**A red LED in the front should light**, indicating that the system is booting. The system should be up and running in few moments, and Android graphical interface should be displayed on the monitor:





Figure 1 Default Operating System

It is recommended to visit the "Getting Started" page in order to learn how to use alternative operating systems and/or upgrade to recent ones:

http://cubox-i.com/getting-started/

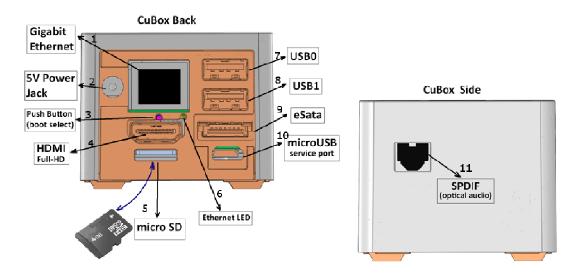
### **PRODUCT INFORMATION**

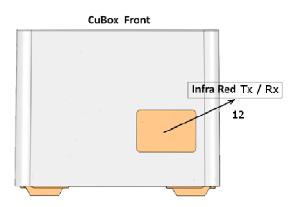
# 1. Overview

CuBox-i family of products are low cost, highly energy efficient and small form-factor open source based miniature computer that can be used for different applications such as smart TV box, media center, gaming machine, set-top-box, NAS (Network Attached Storage) Server, digital signage and many other applications.

# 2. Interfaces







note: The indicator LED shares the IR receiver window.

Id	Interface	Description	I1-300-D, I1W-300-D, I2-300-D, I2W-300-D	I2eX-300-D, I2eXw-300-D, I4P-300-D
1	Ethernet	Connect to your Ethernet switch or router for local wired networking (LAN).	Fast Ethernet	Gigabit Ethernet
2	DC Jack	Power inputs. User must connect a 5V limited power supply. See below safety notices for further safety instructions.	Use 5V/2A	Use 5V/3A for I4P-300-D model
3	Push Button	This is a user defined push button. User application defines its functionality.	Supported	Supported
4	HDMI	Full HD HDMI output. Connect to your TV set.	Supported	Supported
5	MicroSD	MicroSD MUST be installed with proper operating system and application for proper operation of the device.	Supported	Supported
6	Ethernet indication LED	Off: Indicates No link was established Always on: Indicates link is established	Supported	Supported



		Blinking:		
7 USB0		First powered USB port. Connect your USB device such as Keyboard, Mouse, HD, etc Do	Supported	Supported
		not overload with more than 0.5A current consumption.		
8	USB1	First powered USB port. Connect your USB device such as Keyboard, Mouse, HD, etc Do not overload with more than 0.5A current consumption.	Supported	Supported
9	eSATA	External SATA Hard Drive connection.	Not supported	Supported
10	MicroUSB	MicroUSB for serial port connection. Use this port for service and debug if you are using the device for lab and development.	Not supported	Supported
11	SPDIF Output	SPDIF Optical Output. Mechanical dimensions of the optical output connector are small due to device size. It is recommended to purchase and use the SPDIF cable available from SolidRun and distributors, or an equivalent cable.	Supported	Supported
12/a	Infra RED Rx	Infra Red receiver for remote control support. Running application must support this functionality.	Supported	Supported
12/b	Infra RED Rx	Infra Red transmitter for controlling devices in vicinity such as TV set, STB box, etc Running application must support this functionality.	Not Supported	Supported

# 3. System Specifications Hardware:

Below is a table summarizing CuBox-i features for all models.

Model	I1-300-D	I2-300-D	I2eX-300-D	I4P-300-D
	I1W-300-D	I2W-300-D	I2eXw-300-D	
Commercial name	CuBox-i1	CuBox-i2	CuBox-i2eX	CuBox-i4Pro
	CuBox-i1w	CuBox-i2w	CuBox-i2eXw	
Chipset	i.MX6 Solo	i.MX6 Dual	i.MX6 Dual	i.MX6 Quad
		Lite		
Core Count	1 @ 1 GHz	2 @ 1 GHz	2 @ 1 GHz	4 @ 1 GHz
Memory Size	512MByte DDR3	1GByte DDR3	1GByte DDR3	2GByte DDR3
Memory Config	32 bit @	64 bit @	64 bit @	64 bit @
	800Mbps	800Mbps	1066Mbps	1066Mbps
3D GPU	GC880	GC880	GC2000	GC2000



3D GPU Type	OpenGL ES	OpenGL ES	OpenGL ES	OpenGL ES
	1.1/2.0	1.1/2.0	1.1/2.0,OpenCL	1.1/2.0,OpenCL
			1.1E	1.1E
HW Video Dec/Enc	Multi Format	Multi Format	Multi Format	Multi Format
HDMI 1080p	1.4, 3D support	1.4, 3D support	1.4, 3D support	1.4, 3D support
Ethernet	10/100 Mbps	10/100 Mbps	10/100/1000 Mbps (*)	10/100/1000 Mbps (*)
USB 2.0 Host	2 x Hosts	2 x Hosts	2 x Hosts	2 x Hosts
WiFi 11n/BlueTooth	Х	Optional	Optional	V
Micro SD Interface	V	V	V	V
eSata II 3Gbps	Х	Х	V	V
RTC With Backup Battery	Х	Х	V	V
Optical S/PDIFAudio Out	V	V	V	V
Micro USB to RS-232	Х	Х	V	V
InfraRed for Remote Control	Receiver	Receiver	Receiver & Transmitter	Receiver & Transmitter

# Software:

Android (Default)

# Optional installations :

- UBUNTU
- XBMC
- freeBSD
- Debian
- GeexBox
- And much more ...

# 4. Operating environment

Operating temperature: 0°C to 40°C Relative humidity: 5% to 90%



#### **COMPLIANCE AND SAFETY INFORMATION**

#### 1. For USA - Federal Communication Commission Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection. This equipment generates, uses, and can emit radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### 2. For EU - CE compliance

This device complies with the EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC.

**Note**: Shielded Ethernet cable must be used in order to comply with emission limits.

#### 3. Safety notice

- a) This device is to be used with Certified Power adaptor with output rated 5VDC, 3A for I4P-300-D model and 5VDC, 2A for all other models. Power adapter must meet Limited power source (LPS) requirements.
- b) Power adapter must meet local safety standards and requirements based on product intended use.
- c) Power adapter must meet Operating environment conditions as specified in section 4 above.

#### 4. Disposal

Follow local regulations regarding disposal of the product. Dispose of your product in accordance with local regulations. In some areas, the disposal of these items in household or business trash may be prohibited. Help us protect the environment - recycle!

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