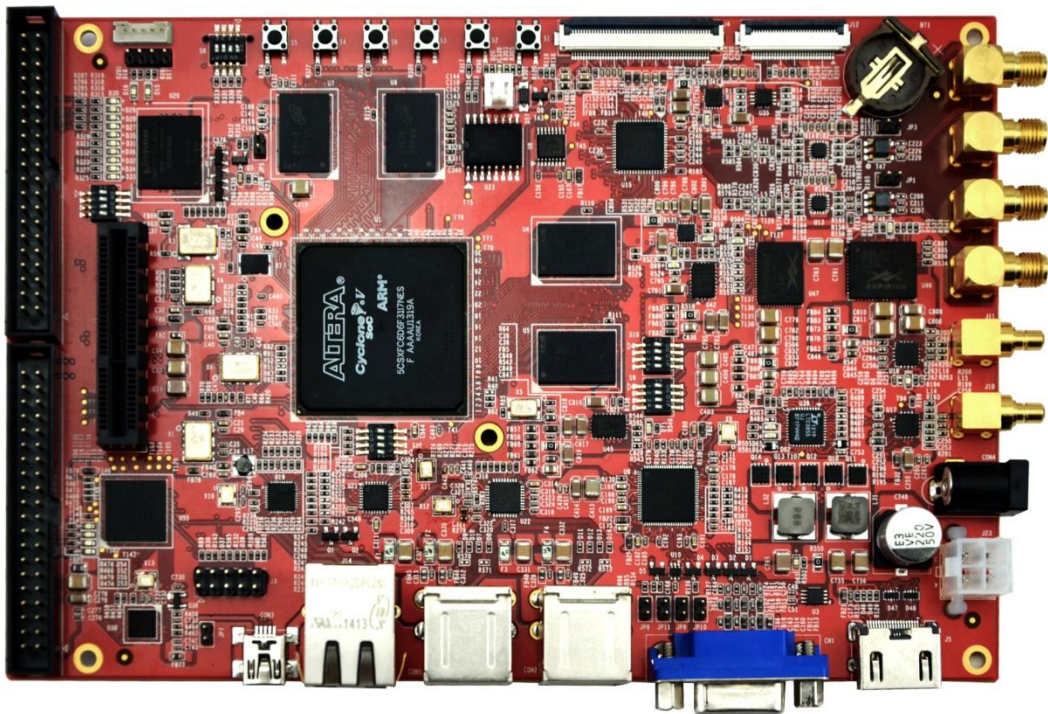


# Lark Board Quick Start Guide

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**FCC NOTICE:** This kit is designed to allow:

(1) Product developers to evaluate electronic components, circuitry, or software associated with the kit to determine whether to incorporate such items in a finished product and

(2) Software developers to write software applications for use with the end product.

This kit is not a finished product and when assembled may not be resold or otherwise marketed unless all required FCC equipment authorizations are first obtained.

Operation is subject to the condition that this product not cause harmful interference to licensed radio stations and that this product accept harmful interference. For evaluation only; not FCC approved for resale

**European Union Notice:** this kit is a custom built evaluation kit destined for professionals to be used solely at research and development facilities for such purposes.



For evaluation only; not FCC approved for resale

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# Product Overview

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## 1. Packing List

- Lark Boardx1
- USB cable for FPGA programming and controlx1
- 19V DC power adapterx1
- 8GB TF cardx1
- 4.3-inch LCD or 7-inch LCDx1 (Optional)

## 2. Factory Default Conditions

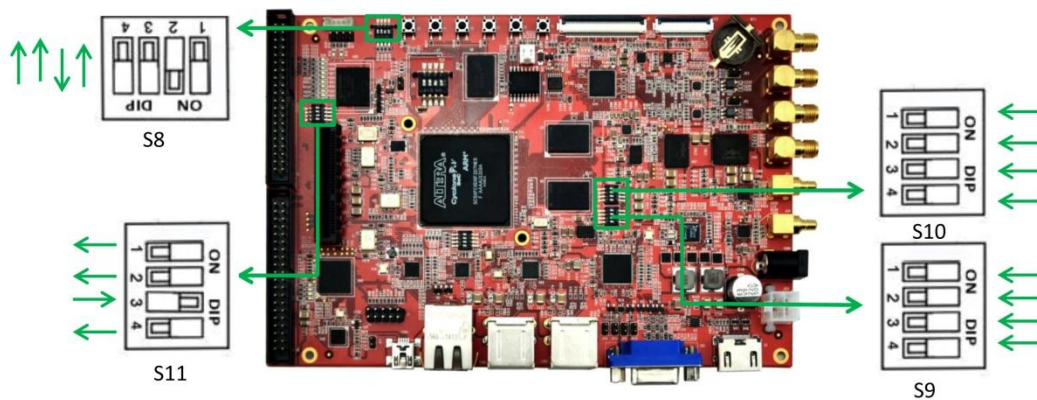
- A Linux system is already programmed in the on-board eMMC and supports HDMI/VGA display by default; If another display mode is required, please refer to the Display Mode Configurations in user manual.
- Lark Board has no CR1220 battery installed on board; Please purchase it if necessary.
- The TF card that comes with the Lark Board has the CD contents, but cannot ensure it is the latest version, please get the latest version from <http://www.embest-tech.com/product/pinggubanxie/lark-board-evaluation-board.html>.

# Quick Use of Lark Board

Lark Board has been installed with Yocto image by default so that the board could be booting and running immediately. This chapter will introduce how to realize a quick use of Lark Board through simple hardware connections and software configurations. Please follow the quick steps listed below.

## 1. Check the DIP Switches status

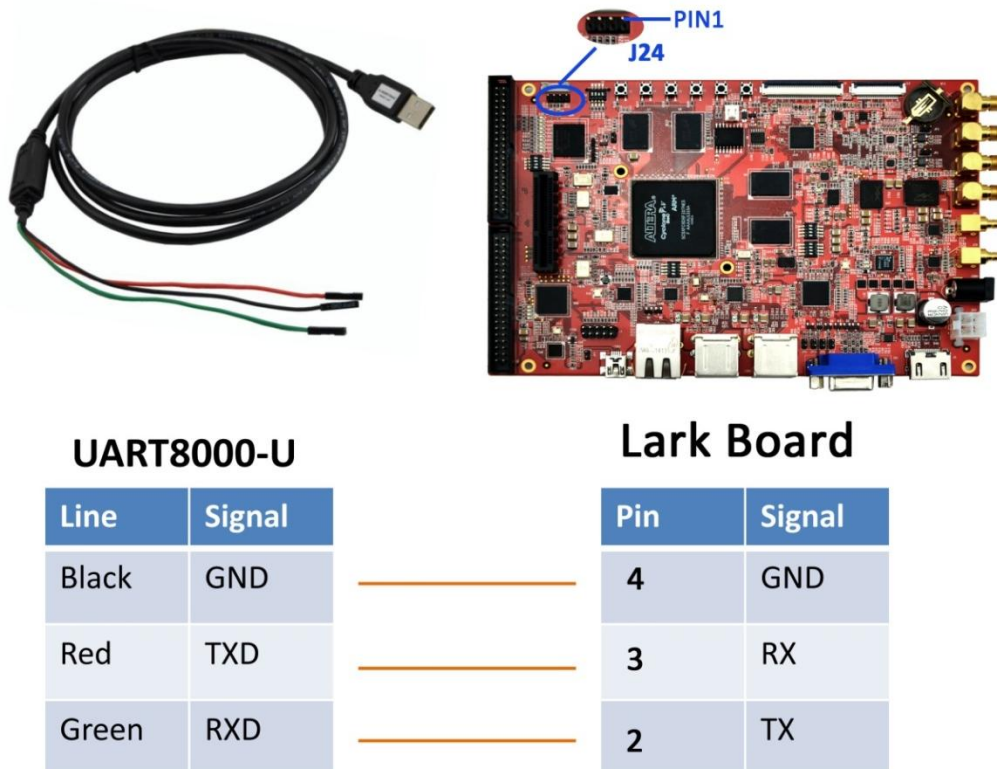
Set the DIP switches as shown in the following figure;



**Figure 1** DIP switch settings

## 2. The Hardware connection of Debug serial port

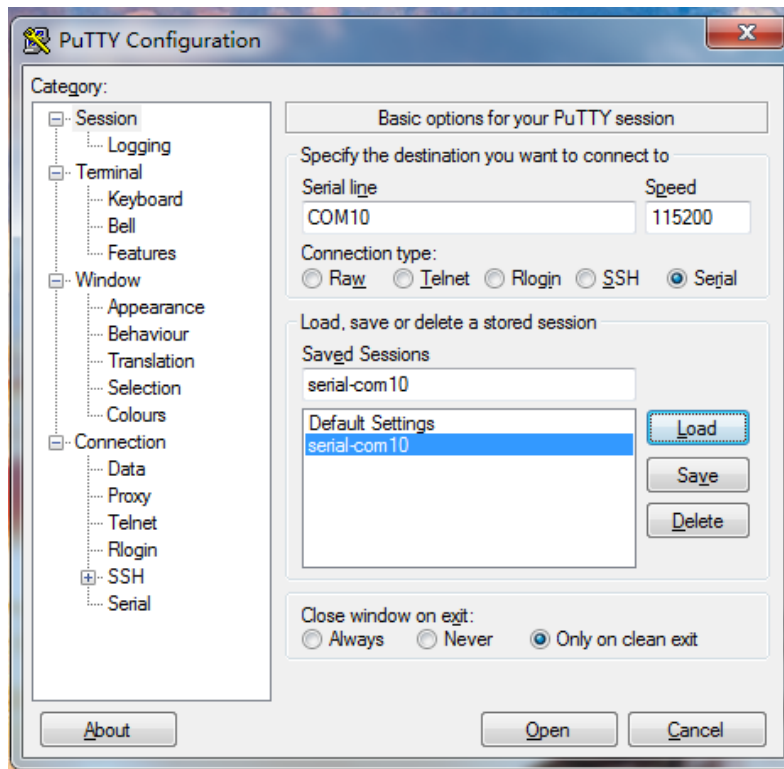
Connect a USB-To-TTL conversion cable (for example UART8000-U; needs to be purchased separately) to the serial port of Lark Board as shown below:



**Figure 2** Hardware connections

### 3. The Configuration of the serial port

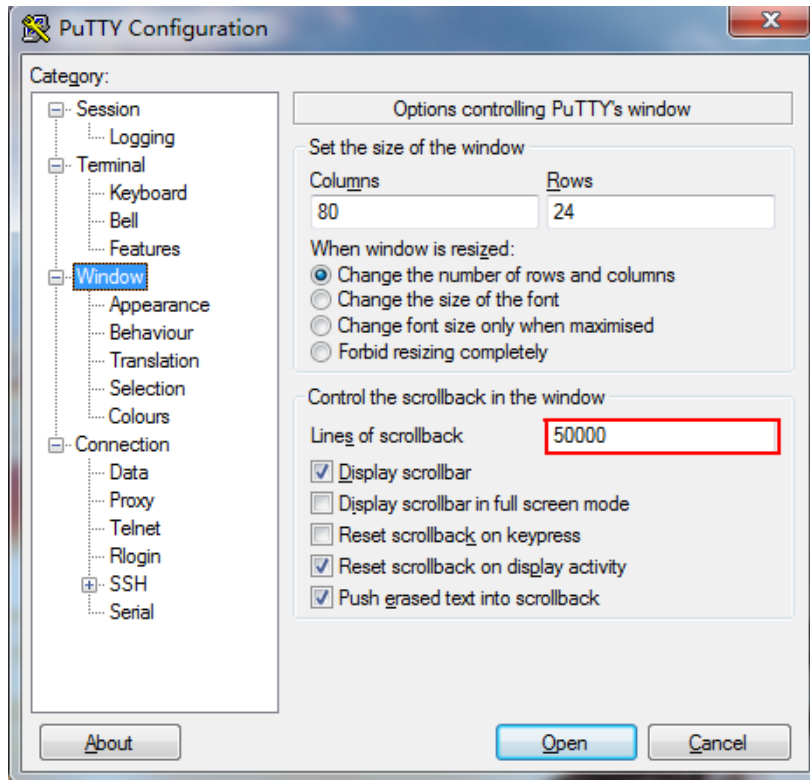
- 1) Connect the UART8000-U to the USB Host on PC, then power on the board; After Lark Board boots up, it will obtain a port number, for example com10, allocated automatically by PC to the board,;
- 2) PuTTY will be taken as the example of serial communication software to explain how to configure parameters. Firstly, download PuTTY from <http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>, then install and run it on a PC;
- 3) In the pop-up configuration window, please select **Serial** radio box under **Connection type**; enter the serial port number (COM10 for example) allocated by the PC in **Serial line** text box and **115200** in **Speed** text box; (you can enter a name, for example serial-com10, for the current session in **Saved Sessions** text box and then click Save to save the configurations under the name you entered)



**Figure 3** Enter port number

- 4) Click **Window** entry on the left part of configuration window and change the **Lines of scrollbar** to 50000 on the right part as shown below; This would prevent printed texts from being overlapped with each other because of inadequate printing lines allowed in PuTTY terminal window;






**Figure 4** Window configuration

- 5) Click **Serial** entry on the left part of the window and configure serial lines as shown below; When configuration is done, click **Open** to enter PuTTY terminal window;

## 4. Lark Board Boot-up

Complete the above configurations, connect a HDMI/VGA monitor to Lark Board, and then power on the board, Lark Board will boot the system from eMMC

**Note:**

 Disconnect TF card to Lark bard when booting from eMMC



# Technical Support and Warranty

## Technical Support



Embest Technology provides its product with one-year free technical support including:

- Providing software and hardware resources related to the embedded products of Embest Technology;
- Helping customers properly compile and run the source code provided by Embest Technology;
- Providing technical support service if the embedded hardware products do not function properly under the circumstances that customers operate according to the instructions in the documents provided by Embest Technology;
- Helping customers troubleshoot the products.



The following conditions will not be covered by our technical support service. We will take appropriate measures accordingly:

- Customers encounter issues related to software or hardware during their development process;
- Customers encounter issues caused by any unauthorized alter to the embedded operating system;
- Customers encounter issues related to their own applications;
- Customers encounter issues caused by any unauthorized alter to the source code provided by Embest Technology;


## Warranty Conditions

- 1) 12-month free warranty on the PCB under normal conditions of use since the sales

of the product;

- 2) The following conditions are not covered by free services; Embest Technology will charge accordingly:
- Customers fail to provide valid purchase vouchers or the product identification tag is damaged, unreadable, altered or inconsistent with the products.
  - Products are damaged caused by operations inconsistent with the user manual;
  - Products are damaged in appearance or function caused by natural disasters (flood, fire, earthquake, lightning strike or typhoon) or natural aging of components or other force majeure;
  - Products are damaged in appearance or function caused by power failure, external forces, water, animals or foreign materials;
  - Products malfunction caused by disassembly or alter of components by customers or, products disassembled or repaired by persons or organizations unauthorized by Embest Technology, or altered in factory specifications, or configured or expanded with the components that are not provided or recognized by Embest Technology and the resulted damage in appearance or function;
  - Product failures caused by the software or system installed by customers or inappropriate settings of software or computer viruses;
  - Products purchased from unauthorized sales;
  - Warranty (including verbal and written) that is not made by Embest Technology and not included in the scope of our warranty should be fulfilled by the party who committed. Embest Technology has no any responsibility;
- 3) Within the period of warranty, the freight for sending products from customers to Embest Technology should be paid by customers; the freight from Embest to customers should be paid by us. The freight in any direction occurs after warranty period should be paid by customers.
- 4) Please contact technical support if there is any repair request.

**Note:**

 Embest Technology will not take any responsibility on the products sent back without the permission of the company.

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