

PY32L020F1xP-START

User Guide



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1. Introduction

The PY32L020F1xP-START development board integrates a PY-LINK emulator. For detailed usage instructions of PY-LINK, please refer to the document "PYLink_UserManual_zh-CN.pdf". The START board uses the PY32L020 as the main controller. This development board, equipped with a 32-bit ARM® Cortex®-M0+ CPU core from Puya, provides a simple hardware development environment. The board is powered via the USB interface of PY-LINK. It offers peripheral resources including extension pins, as well as SWD, Reset, User button key, Reset key, LED, and more. This document provides detailed hardware schematics and related application examples.

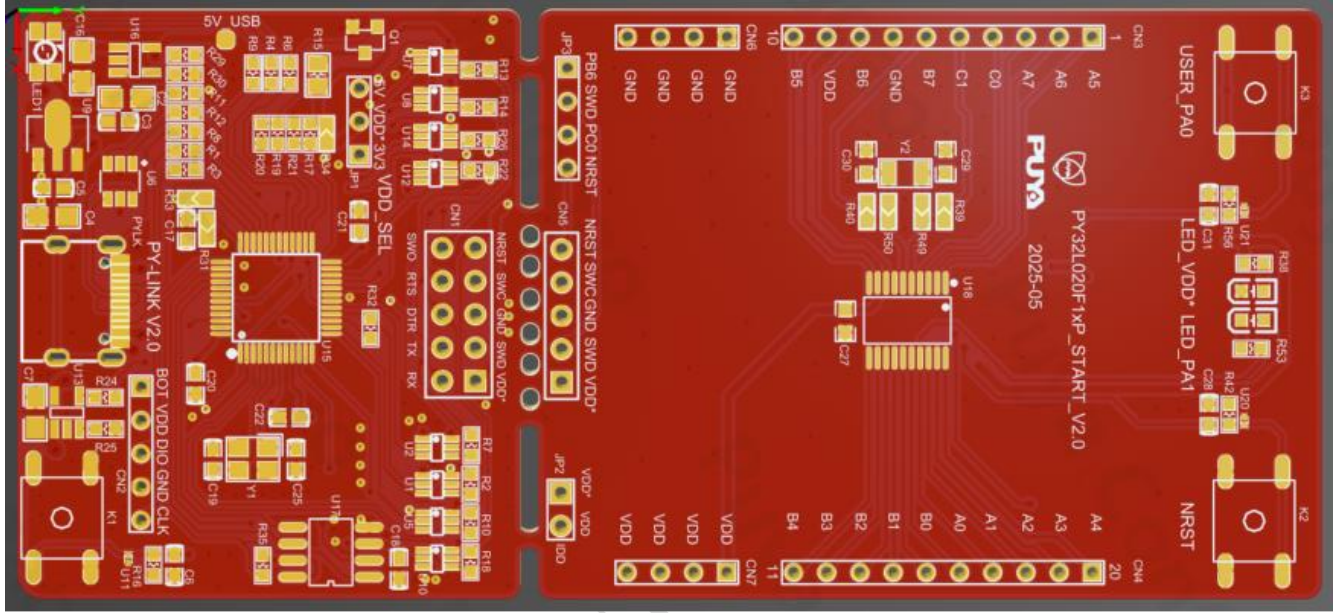


Figure 1-1 PCB 3D renderings

2. Functional pin assignment

Table 2-1 Pin Assignment

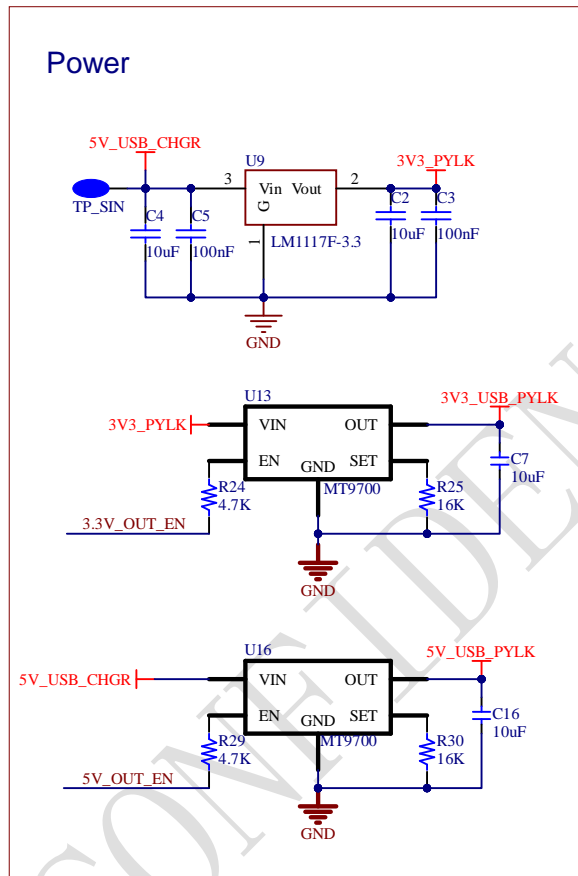
Function	Pin	Description	Note
LED	\	LED1	PY-LINK LED
	\	LED2	VDD*
	PA1	LED3	User LED
KEY	\	K1	PY-LINK Key
	PA0	K2	User Key
	PC0	K3	Reset Key

3. Getting Started Guide

The development board is powered via a Type-C USB connection. To download programs to the board, a Type-C USB cable is required. Select the correct boot mode, connect the USB cable, and if LED1 lights up, it indicates a proper power connection.

4. Overview of Hardware Design

4.1 Power supply



TVDD_Selection

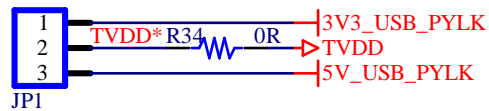


Figure 4-1 Power supply schematic

4.2 LED indicator light

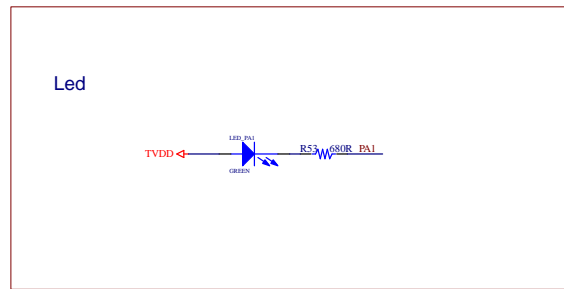


Figure 4-2 LED Functional schematic

4.3 Reset Key

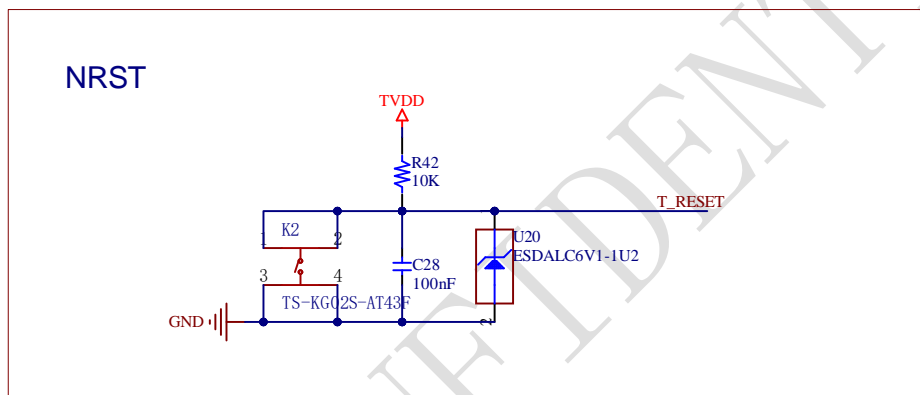


Figure 4-3 Reset key function schematic

4.4 User Key

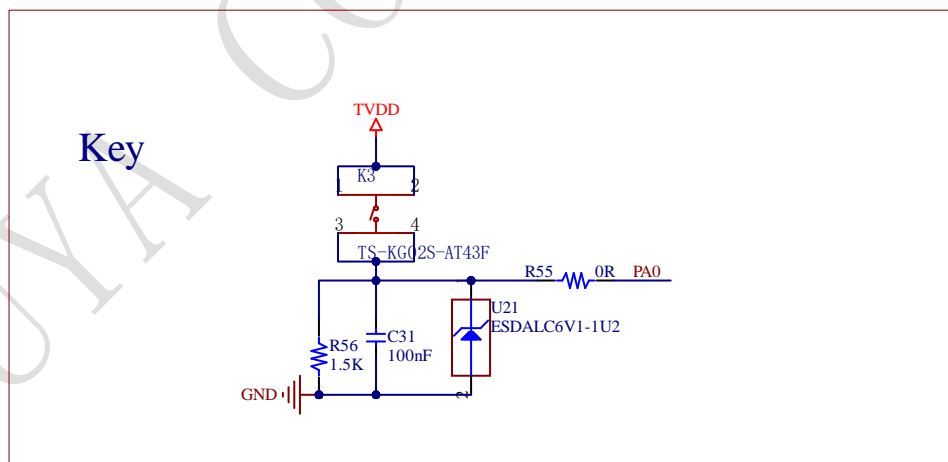


Figure 4-4 User key function schematic

5. Guide to Using the Example

5.1 GPIO Toggle

5.1.1 Purpose of the Example

This sample program includes the following functions of the MCU:

- Learn to control LEDs using GPIOs
- Learn to use SysTick to generate time delays

There is one LED on the development board, the LED is controlled by GPIO. This sample program will tell how to light up the LED.

5.1.2 Execution Results

Download the program <GPIO_Toggle> to the development board and you will see the LED blinking.

6. Schematic

6.1 PY_LINK Schematic

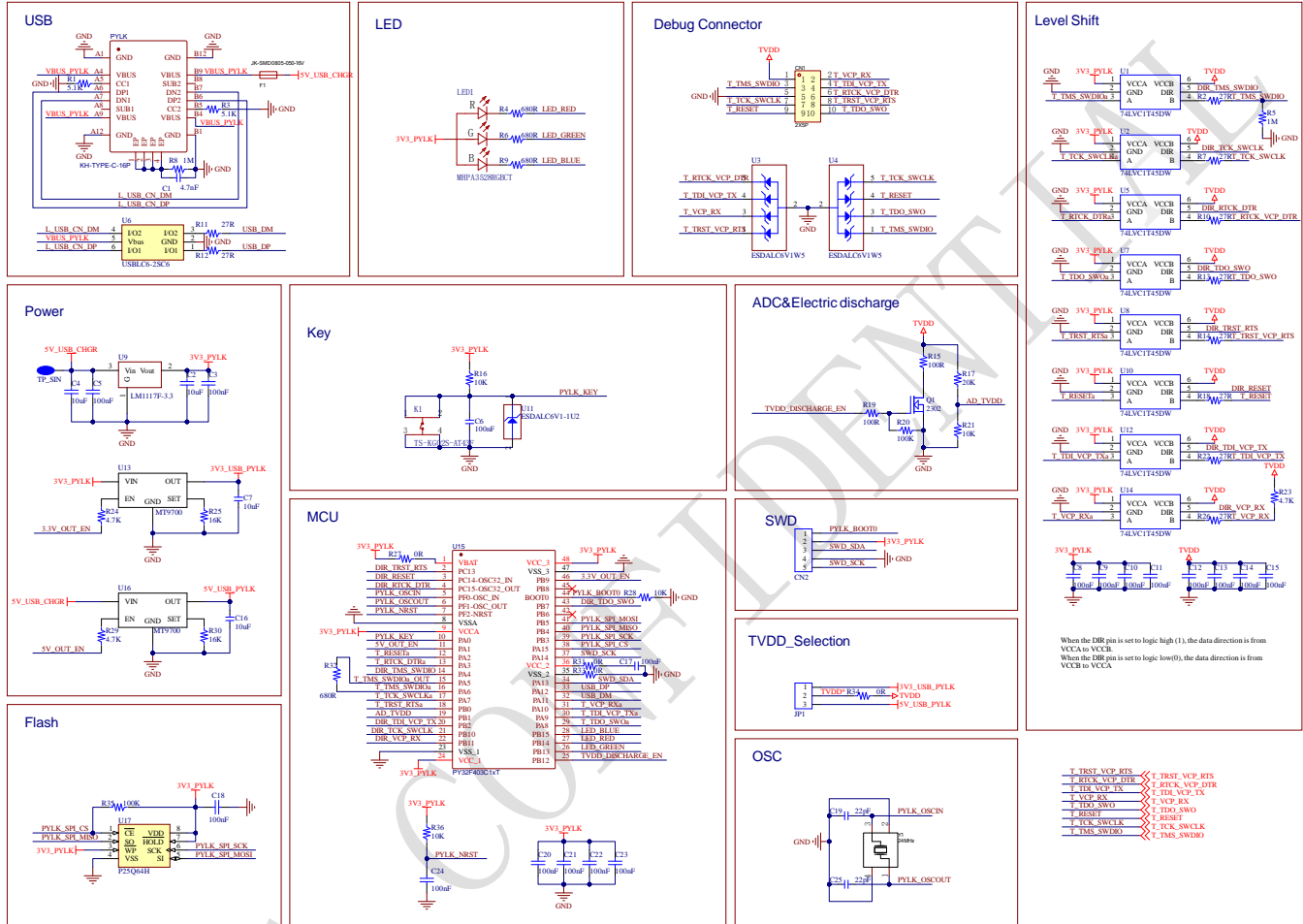


Figure 6-1 PY_LINK Schematic

6.2 MCU Schematic

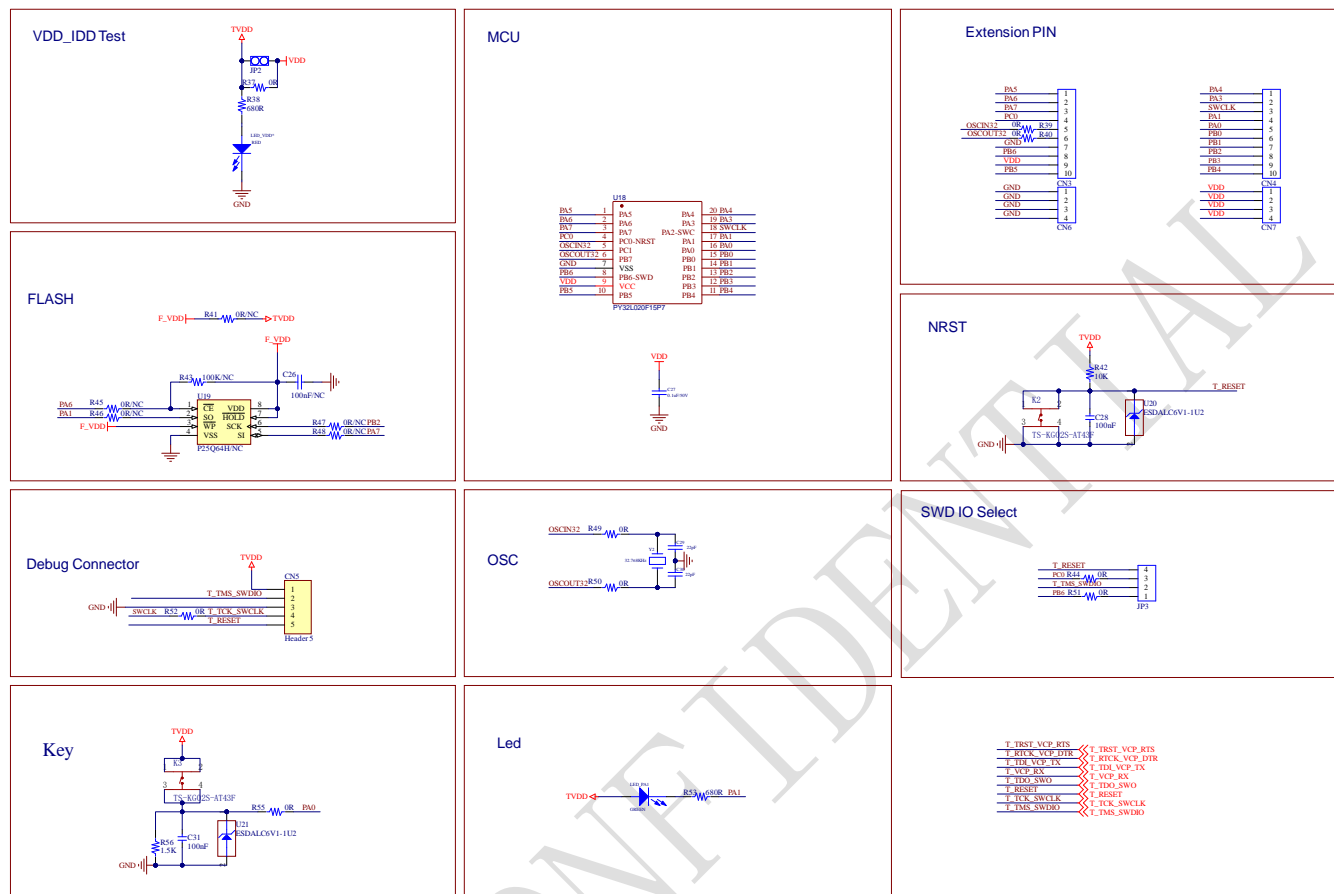


Figure 6-2 MCU Schematic

7. Updated History

Version	Content	Date
V1.0	Initial version	2025/06/10



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