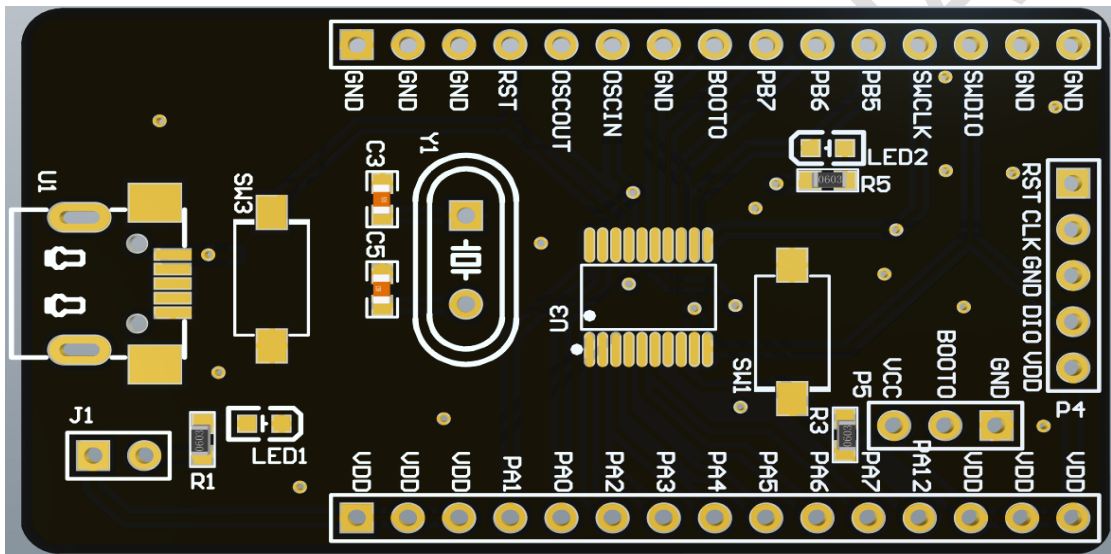


Introduction

The development board uses PY32F003 as the main controller. This development board provides a simple hardware development environment for Puya chips with 32-bit ARM® Cortex® -M0+ CPU cores. The development board uses the mini-USB interface as the power supply. Provide peripheral resources including expansion pins and SWD, Reset, Boot, User button key, Reset key, LED and other peripheral resources. This document provides detailed hardware schematics and associated applications.



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1 Function pin assignment

Table1-1 Pin assignment

Function	pin	describe	Remark
LEDs _	\	LED1	Power LED
	PB5	LED2	LEDs _
KEY	PA12	SW1	User Key
	PF2	SW3	Reset Key

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2 Getting Started Guide

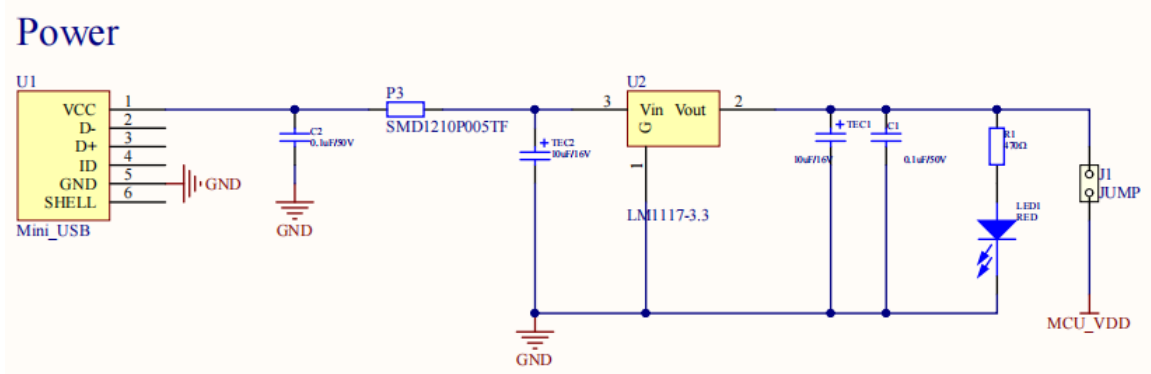
The development board uses a mini-USB to LDO to provide 3.3V power. In order to download programs to the development board, a mini-USB cable is required. Select the correct boot mode, connect the USB cable, if LED1 is lit, it means the power connection is correct. The routines are only available in the Keil version.

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3 Hardware Design Overview

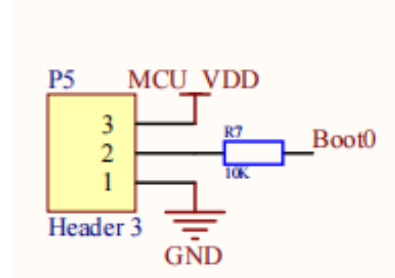
3.1 Power supply

Figure 3.1-1 Schematic diagram of power supply



3.2 Startup mode selection

Figure 3.2-1 Schematic diagram of startup mode selection



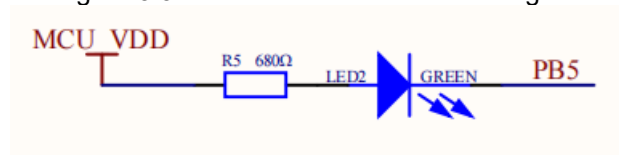
Through BOOT0 pin and boot configuration bit nBOOT1 (stored in Option bytes), three different boot modes can be selected, as shown in the following table:

Table 4.2- 1 Startup mode configuration

nBoot1 bit	BOOT0 pin	boot mode
X	0	Select Main flash as the boot area
1	1	Select System memory as the boot area
0	1	Select SRAM as the boot area

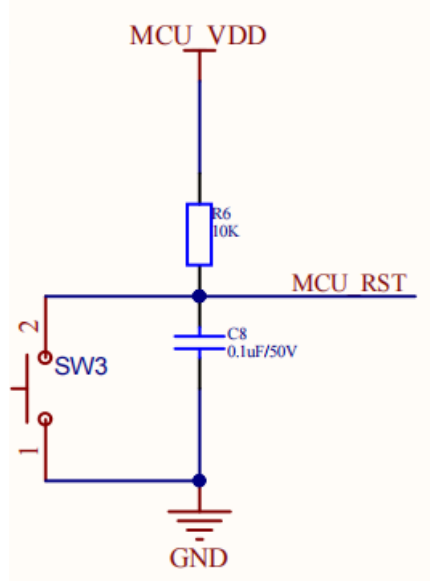
3.3 LED indicator

Figure 3 3 LED functional schematic diagram



3.4 Button

Figure 3 4 Function schematic diagram of reset button



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4 Routine usage guide

4.1 GPIO Toggle

4.1.1 DEMO purpose

This routine includes the following functions of the MCU:

- Learn to use GPIO to control LEDs
- Learn to use SysTick to generate delays

There is 1 LED on the development board. The LEDs are controlled via GPIO. This example will describe how to light up an LED.

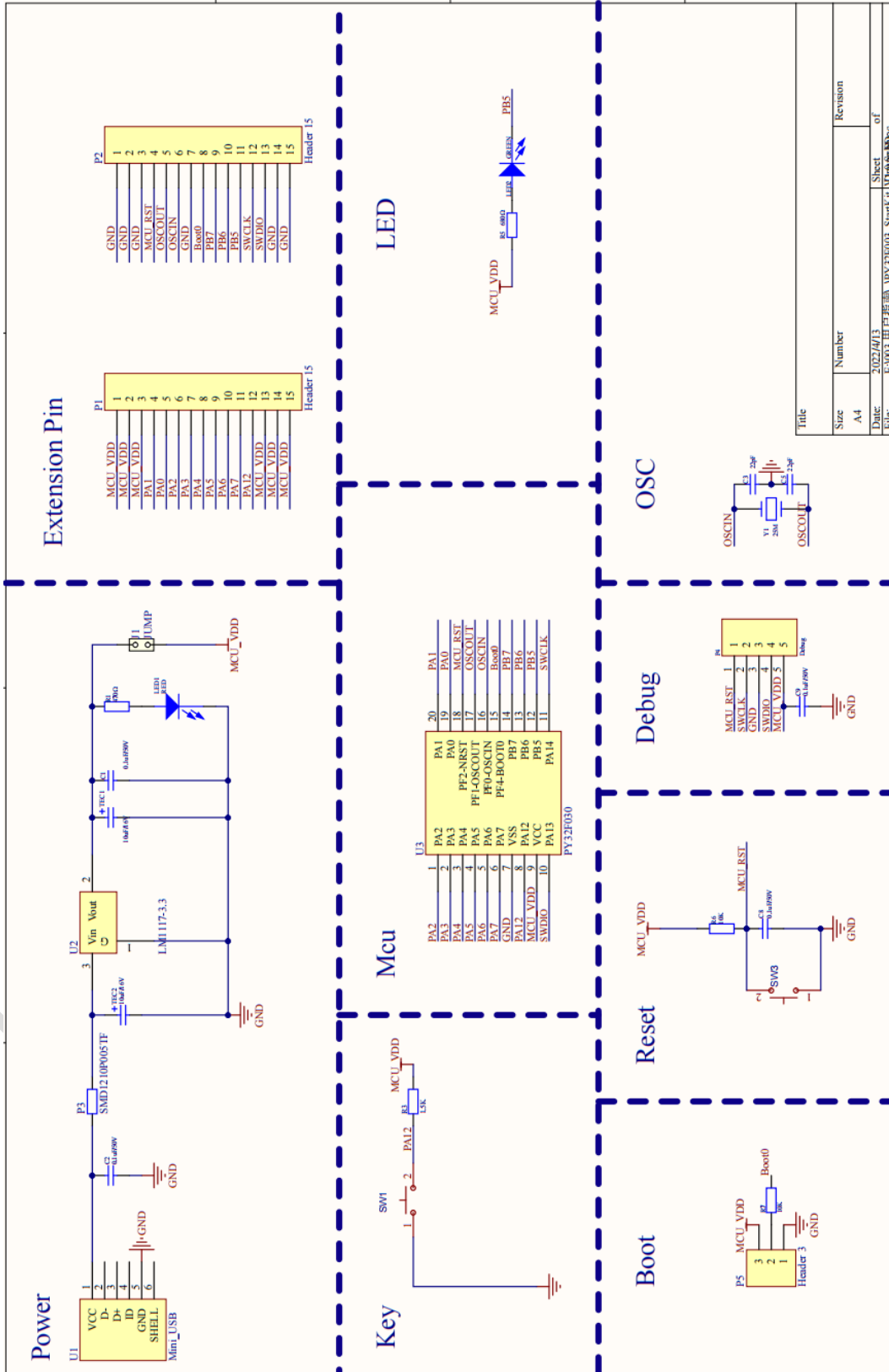
4.1.2 DEMO execution result

Download the program <GPIO_Toggle> to the development board, the LED blinks.

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5 Schematic

Figure 5-1 Schematic



Title		Revision	
Size	Number	Sheet	
A4		of	
Date:	2022/4/13	File:	
EM03 用户指南\VPY32F030_3_20220413_StartKit\VPY32F030_3_20220413_Rev01.dwg		EM03 用户指南\VPY32F030_3_20220413_StartKit\VPY32F030_3_20220413_Rev01.dwg	

6 Version history

Version	Content	Date
V1.0	Initial Release	2022.07.05



Puya Semiconductor Co., Ltd.

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