Instructions for using the routines based on the **W600** chip

RT-THREAD Documentation Center

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The W60X SDK designed and developed by the RT-Thread team includes common components and a rich set of software packages for IoT applications. Both W601 and W600 chips integrate Cortex-M3 cores and support multi-function interface SoC chips.

For the convenience of users, RT-Thread summarizes the routines that can support the W600 chip and Explain with key points.

1. Routines supporting **W600** chip

Routines	Remark
01_basic_led_blink	Need to change pin number
02_basic_key	Need to change the pin number and connect to external buttons
03_basic_rgb_led	Need to change pin number
10_component_fal	Distinguish between 1M and 2M versions (1M version cannot find download partition)
11_component_kv	none
13_component_ulog	none
16_iot_wifi_manager	none
17_iot_web_config_wifi None	
20_iot_at_server	Need to configure the serial port pin
21_iot_mqtt	none
22_iot_http_client	none
24_iot_websocket	none
25_iot_cjson	none
26_iot_mbedtls	none
27_iot_hw_crypto	none
28_iot_ota_ymodem	Applicable to 2M version, not support 1M version
29_iot_ota_http	Applicable to 2M version, not support 1M version
30_iot_netutils	Support Ping tool, NTP tool, Iperf tool (ignore file system errors)
31_iot_cloud_rtt	Applicable to 2M version, the firmware upgrade function of 1M version is limited
32_iot_cloud_onenet	Change the data reporting data and delete the light intensity collection program
33_iot_cloud_ali_iotkit None	
34_iot_cloud_ms_azure None	
35_iot_cloud_tencent	none

2 Modify the configuration

For supported routines, you need to change the routine configuration and select the hardware version; for routines related to specific hardware, you need to modify the hardware pin configuration.

Set.

2.1 Routine Configuration

In the supporting routines, there is a rtconfig.h file in each project directory (for example: the 01_basic_led_blink routine is located in /examples/01_basic_led_blink/rtconfig.h). Change SOC_W601_A8xx to SOC_W600_A8xx in the file. This name is only used to distinguish different packages.

2.2 Hardware pin configuration

The pin configuration is in the file /drivers/pin_config.h , which mainly targets the modification of the pins. For example, the pins of the RGB lamp are changed as follows according to the schematic diagram:

W60X	W600
#define PIN_LED_R 30	#define PIN_LED_R 21
#define PIN_LED_G 31	#define PIN_LED_G 22
#define PIN_LED_B 32	#define PIN_LED_B 23

3 Compile and download

Use MDK, IAR or GCC to compile the project in the example and generate firmware rtthread_layout_2M.FLS and rtthread_layout_1M.FLS , etc.

For the first download, you must refer to the document "UM3105-RT-Thread-W60X-SDK-Burn W60X chip firmware through the serial port.pdf". The downloaded firmware contains bootloader and partition information. For subsequent downloads, you can directly use the SWD download method to download and debug the application code. For details, please refer to "WM_W60X_SWD Debug Configuration Guide_V1.5.pdf"

4. Run

After the W600 development board firmware is successfully downloaded, it can be run after reset. For the running phenomenon and process, refer to the README.md in each example. The startup log is different, but everything else is roughly the same.

5. Things to note

- For the routine introduction, refer to README.md in the corresponding routine .
- For the W600 download process, refer to "UM3105-RT-Thread-W60X-SDK-Burn W60X chip firmware through the serial port.pdf"