

Marvell WiFi is a sdio wifi driver software running on the RT-Thread real-time operating system.

Hardware Requirements

ROM: 512KB or above RAM: 128KB or above

WiFi Chips Support

- 1.88w8782
- 2.88w8801



guangliangliao



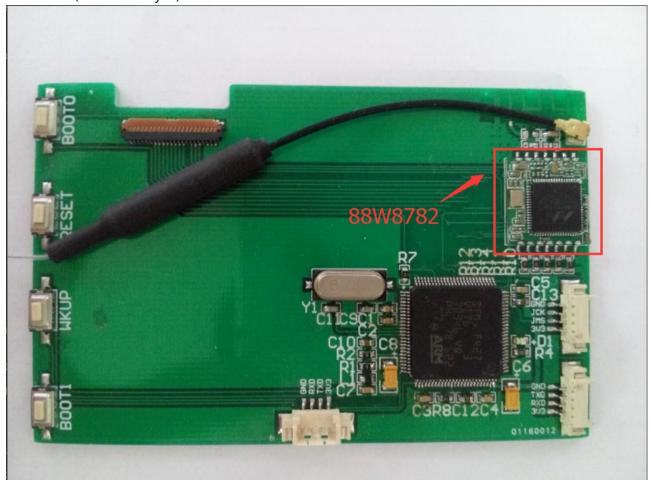
eYoung8475 linyiyang

Languages

• **C** 99.3%

Other 0.7%

3. 88w8797 (not tested yet)





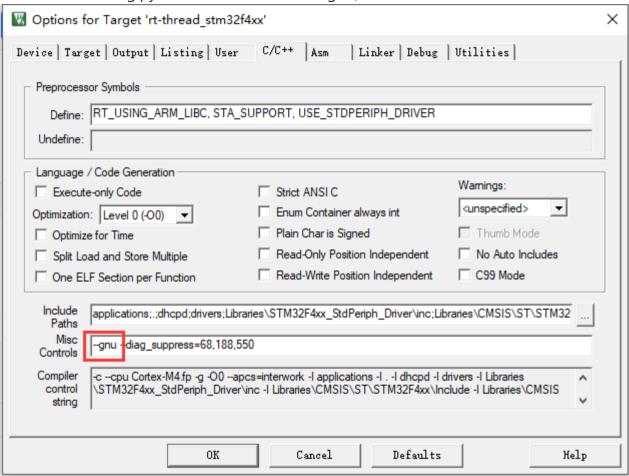
Features

- 1. STA, UAP mode (can coexist, but no routing)
- 2. Authentication method: OPEN/WPA-PSK/WPA2-PSK
- 3. Automatically reconnect
- 4. low power mode
- 5. High speed (stm32f407 driver can reach 2MB/s)

Compiler

- 1. You can use GCC to compile
- 2. Or add it to the MDK5 project and compile

(Note: Since the driver contains a lot of gcc features, please add --gnu to Misc Controls under the compiler C/C++ options): If you want to compile through scons, please specify toolchains as armcc in rtconfig.py and add it in CFLAGS --gnu):



```
elif PLATFORM == 'armcc':
   CC = 'armcc'
   AS = 'armasm'
   AR = 'armar'
   LINK = 'armlink'
   TARGET EXT = 'axf'
   DEVICE = ' --cpu=cortex-m4.fp'
   CFLAGS = DEVICE + ' --apcs=interwork -DUSE_STDPERIPH_DRIVER -DSTM32F40_41xxx --gnu
   LFLAGS = DEVICE + ' --info sizes --info totals --info unused --info veneers --list rtthread-stm32.map --scatter stm32 rom.sct'
   CFLAGS += ' -I' + EXEC PATH + '/ARM/RV31/INC'
   LFLAGS += ' --libpath ' + EXEC PATH + '/ARM/RV31/LIB'
   EXEC PATH += '/arm/bin40/'
   if BUILD == 'debug':
       CFLAGS += ' -g -00'
       AFLAGS += ' -g'
       CFLAGS += ' -02'
   POST ACTION = 'fromelf --bin $TARGET --output rtthread.bin \nfromelf -z $TARGET'
```

Components Dependence

- 1. sdio driver framework (RT_USING_SDIO)
- 2. Lwip protocol stack (RT_USING_LWIP)
- 3. dfs virtual file system (RT_USING_DFS)
- 4. libc library (RT_USING_LIBC)
- 5. rt_hw_us_delay (please implement it yourself in bsp)
- 6. sdio host driver (please implement it yourself in bsp)
- 7. dhcpd protocol (LWIP_USING_DHCPD optional, used in UAP mode)

Adding Method

Use the env tool officially provided by RT-Thread to obtain the package and generate the project

Or manually download the package and add it to the existing project directory, enable the following macros in rt_config.h, and use the scons tool to regenerate the mdk project:

#define PKG_USING_WLANMARVELL
#define MARVELLWIFI_USING_STA

Initialize

Step one: Hard reset the wifi chip, which can be achieved by connecting to the MCU reset circuit or through GPIO control.

Step 2: If you use component initialization, you only need to enable the following macro:

#define RT_USING_COMPONENTS_INIT

Otherwise, please manually initialize other components on which this driver depends before calling

mwifi_system_init();

Note, before using it for the first time, please create a new directory in the target board file system: '/mrvl', and put the firmware in the Fwlmage folder in the package into this directory.

名称	修改日期	类型	大小
fw_version.txt	2017/6/29 15:18	文本文档	1 KB
sd8782_uapsta.bin	2014/5/7 3:00	BIN 文件	249 KB
sd8801_uapsta.bin	2017/6/29 15:14	BIN 文件	252 KB