

REALTEK

Porting RTL8189FTV WIFI Driver into MSC8328P SDK Guide

(CONFIDENTIAL: External)

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REVISION HISTORY

Revision	Release Date	Summary	Writer
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1. Porting 前的准备工作

为保证后续工作更加有效率，Porting WiFi Driver之前请先确认如下事项：

- (1) 确认MSC8328P SDK的版本：M200_Code_R4210_20170313；
- (2) 确认使用的编译器：ADS1.2 with patch b848；
- (3) 确认原始的SDK build出来的image可以正常开机工作；
- (4) 确认使用的Realtek WiFi模块：RTL8189FTV。

2. 文档中的习惯表达

本文档中所有code的修改和添加都遵循如下格式：

- (1) 所有修改和添加的code都使用方框框起来；
- (2) 方框中的code会使用没有颜色的SDK中原有code给出修改位置的信息；
- (3) 所有修改的code均使用**灰色背景红色加粗字体**突出显示，所有添加的code均使用**灰色背景蓝色加粗字体**突出显示。

3. Porting WiFi Driver

3.1. 修改的文件

- (1) M200_Code_R4210_20170313\ahc\src\misc\UartCommandSets01.c

```
void UartCmd_V4l(char* szParam)
{
    #if 0//Andy Liu TBD
        void dbg_dump_v4l(MMP_M_STREAMCB_CODEEC codec);
        dbg_dump_v4l(0/*JPEG*/);//take szParam as parameter later
    #endif
}

#if(WIFI_DRIVER_TYPE == WIFI_DRIVER_RTK)
void rtk_wifi_iwpriv(char *szParam);
#endif
```

```
#endif

//*****

// CarDV TY Miao

void UartCmd_TV_Test( char* szParam )
```

```
#if (WIFI_PORT == 1)
    { "net", "", "perform NETWORK commands", UartCmd_NETCommands},
    { "wifi", "", "perform WIFI commands", UartCmd_WifiCommands},
    { "v4l", "", "v4l debugging", UartCmd_V4l},
    #if(WIFI_DRIVER_TYPE == WIFI_DRIVER_RTK)
        { "iwpriv", "", "rtk mp commands", rtk_wifi_iwpriv},
    #endif
#endif
#endif
    { "cpa", "", "Copy All", UartCmd_CopyAll },
    { "ldws", "", "LDWS switch", UartCmd_LDWS_Enable },
```

(2) M200_Code_R4210_20170313\core\src\dvr\net\wifi\Interface\wlan.c

```
#if(WIFI_DRIVER_TYPE == WIFI_DRIVER_BCM)
#include "gb9662if.c"
#include "wlan_BCM.c"
#elif(WIFI_DRIVER_TYPE == WIFI_DRIVER_MTK)
#include "gb9662if.c"
#include "wlan_MTK.c"
    #elif(WIFI_DRIVER_TYPE == WIFI_DRIVER_RTK)
        #include "gb9662if.c"
        #include "wlan_RTK.c"
#endif
```

(3) M200_Code_R4210_20170313\core\src\dvr\net\wifi\Interface\wlan.h

```
#if(WIFI_DRIVER_TYPE == WIFI_DRIVER_BCM)
#include "wlan_BCM.h"
```

```
#elif(WIFI_DRIVER_TYPE == WIFI_DRIVER_MTK)
#include "wlan_MTK.h"
#elif(WIFI_DRIVER_TYPE == WIFI_DRIVER_RTK)
#include "wlan_RTK.h"
#endif
```

(4) M200_Code_R4210_20170313\project\Dvr_CarDV_SDK\cfg\net\net_cfg.h

```
#define WIFI_DRIVER_BCM      1
#define WIFI_DRIVER_MTK      2
#define WIFI_DRIVER_RTK      3

#define WIFI_DRIVER_TYPE      WIFI_DRIVER_RTK

#define WIFI_RESET_GPIO      MMP_GPIO53
#define WIFI_EINT_GPIO        MMP_GPIO42
#define WIFI_ENABLE_GPIO      MMP_GPIO43
```

3.2. 添加的文件

- (1) M200_Code_R4210_20170313\core\src\dvr\net\wifi\RTK\rtl8189ftv_lib.a
- (2) M200_Code_R4210_20170313\core\src\dvr\net\wifi\RTK\wlan_RTK.c
- (3) M200_Code_R4210_20170313\core\src\dvr\net\wifi\RTK\wlan_RTK.h
- (4) M200_Code_R4210_20170313\LibSourceInc\wifi\WiFi-RTL8189目录及WiFi-RTL8189中的所有文件

4. Project 的修改

用ADS打开M200_Code_R4210_20170313\project\Dvr_CarDV_SDK\Build\SDK_core\core.mp，选择Targets MCR_V2，在core\lib\net\wifi目录下新建目录RTK，并且在RTK中添加M200_Code_R4210_20170313\core\src\dvr\net\wifi\RTK\rtl8189ftv_lib.a和M200_Code_R4210_20170313\core\src\dvr\net\wifi\RTK\wlan_RTK.c（如图1），其中rtl8189ftv_lib.a的Targets选择MCR_V2和dummy，wlan_RTK.c的Targets选择dummy（如图2）。

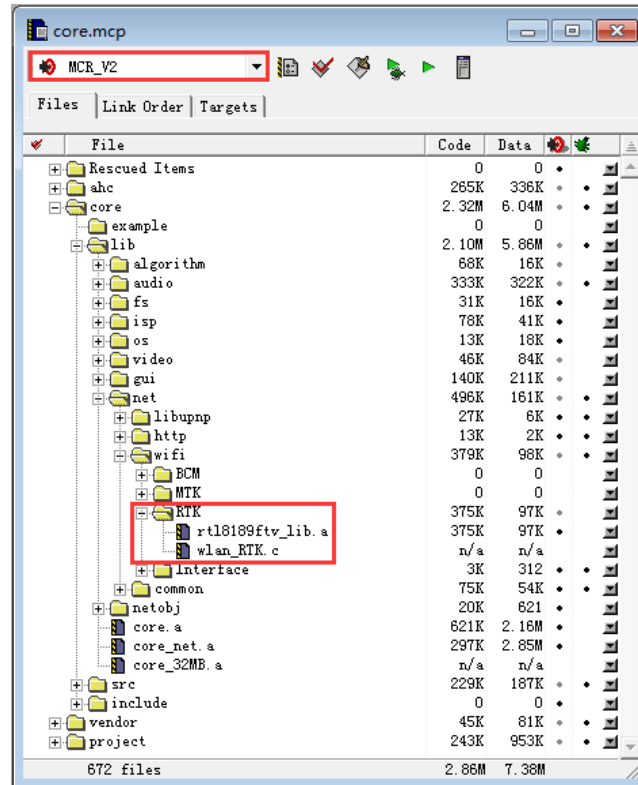


图1 core.mp的文件结构

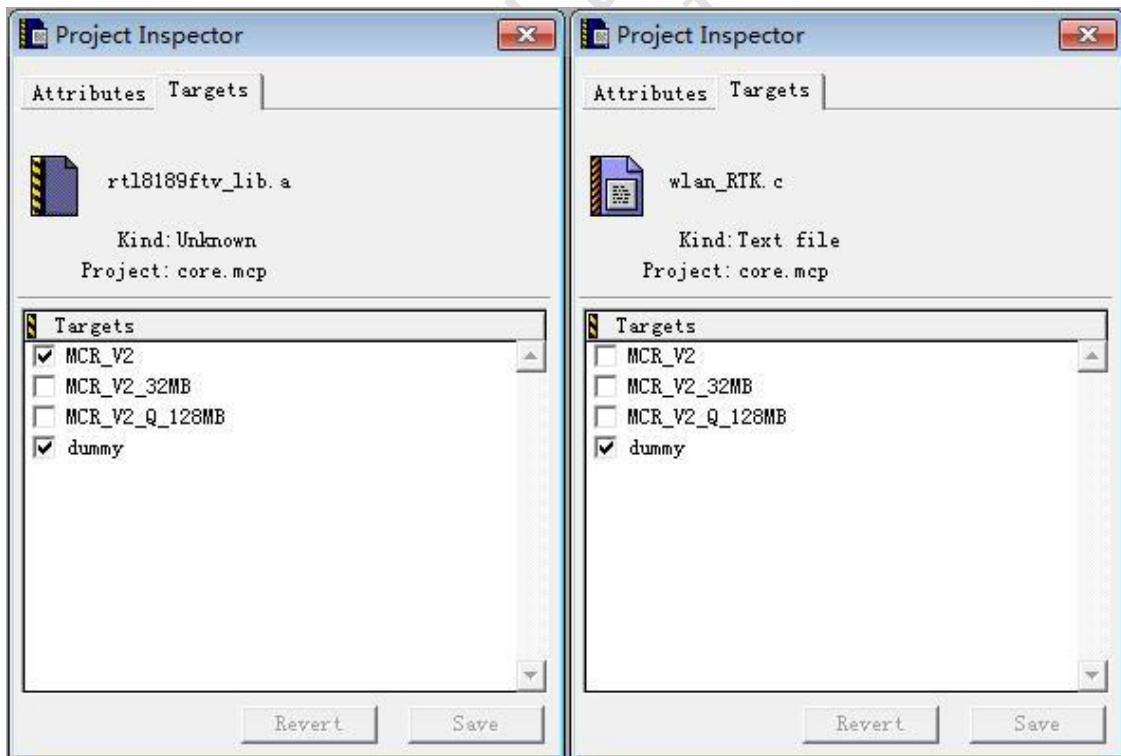


图2 rtl8189ftv_lib.a和wlan_RTK.c的Targets

检查core\lib\net\wifi\BCM和MTK的Targets，如果有MCR_V2，取消选择（如图3）。

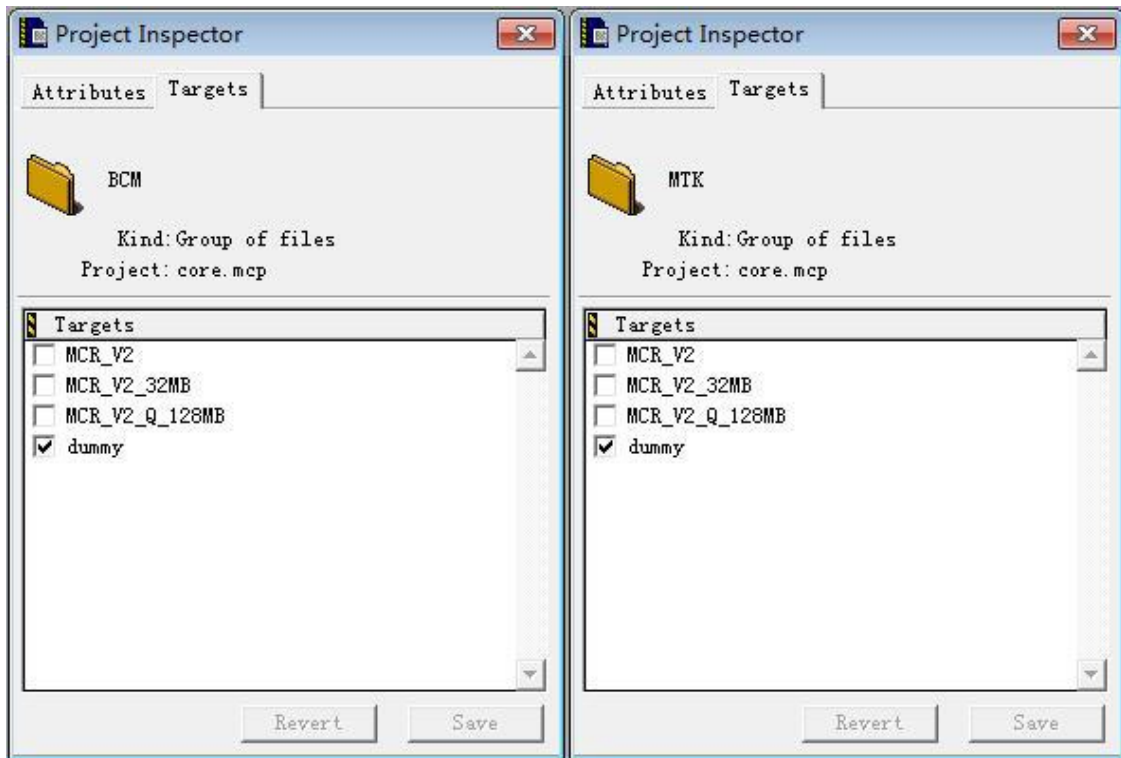


图3 BCM和MTK的Targets

这样就完成了RTL8189FTV WiFi Driver在MSC8328P SDK上的Porting，现在编译SDK_core，就可以得到支持RTL8189FTV的image了。