



***Preliminary AIC8800 Low-Energy  
Wi-Fi6/BT5.4 SoC  
PCIE 移植手册***

**Revision: 1.0  
2024/10/21**

## 历史更新记录

时间	修改内容	修订人	版本
2024/10/21	初版	ruizheli	1.0

## 该文件移植平台为 Ubuntu 平台

可对比以下档案，确认是否有档案缺失。

### AIC8800D80P

aic8800	Wifi bt 驱动包
aic8800_porting_package\PCIE\driver_fw\drivers 驱动包	

fmacfw_8800D80_pcie.bin	Wifi 固件
fw_adid_8800d80_u02.bin	蓝牙固件
fw_patch_8800d80_u02.bin	蓝牙固件
fw_patch_table_8800d80_u02.bin	蓝牙固件
aic8800_porting_package\PCIE\driver_fw\fw\aic8800D80 固件档案	

### AIC8800D80X2P

aic8800d80x2	Wifi bt 驱动包
aic8800_porting_package\PCIE\driver_fw\drivers 驱动包	

fmacfw_8800D80X2_pcie.bin	Wifi 固件
fw_adid_8800d80x2_u03.bin	蓝牙固件
fw_patch_8800d80x2_u03.bin	蓝牙固件
fw_patch_table_8800d80x2_u03.bin	蓝牙固件
aic8800_porting_package\PCIE\driver_fw\fw\aic8800D80X2 固件档案	

1. 将 aic 驱动包放置在主目录下，编译并复制固件到/lib/firmware

AIC8800D80P cp /PCIE/driver_fw/fw/aic8800D80 /lib/firmware -r cd PCIE/driver_fw/driver/aic8800/aic8800_fdrv make AIC8800D80X2P cp /PCIE/driver_fw/fw/aic8800D80X2 /lib/firmware -r cd PCIE/driver_fw/driver/aic8800d80x2/aic8800_fdrv make
编译并复制固件到/lib/firmware

2. 编译完后即可得到

aic8800\_fdrv.ko

3. 各驱动模块的功用

aic8800\_fdrv.ko: 模块固件初始化,Wifi 蓝牙驱动

#### 4. 蓝牙使用

蓝牙走 usb, 修改驱动为

```
#define AICBT_BTPORT_DEFAULT AICBT_BTPORT_MB
```

蓝牙走 uart, 修改驱动为

```
#define AICBT_BTPORT_DEFAULT AICBT_BTPORT_UART
```

当 AIC8800D80P 上电时 lspci 会侦测到

Bus 003 Device 007: ID a69c:8d80

当 AIC8800D80X2P 上电时 lspci 会侦测到

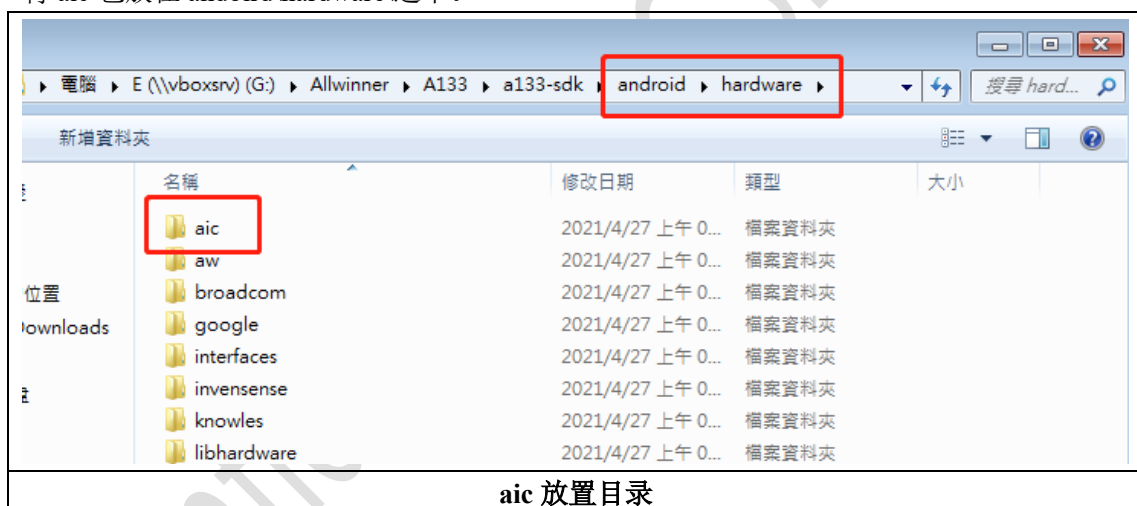
Bus 003 Device 007: ID a69c:8d90

#### 蓝牙在 android 上使用

可对比以下档案, 确认是否有档案缺失。

libbt	蓝牙 libbt-vendor
rftest-tools	rf 测试工具
wlan	Wifi hal 接口
aic8800_porting_package\PCIE\driver_fw\aic	

将 aic 包放在 andoird\hardware\之下。



aic 放置目录

针对蓝牙部分进行以下修改。

```
on property:persist.vendor.bluetooth_vendor=sprd
insmod /vendor/lib/modules/sprdbt_tty.ko
setprop vendor.init.lpm.load 1
```

```
on property:persist.vendor.bluetooth_vendor=aic
insmod /vendor/lib/modules/aic8800_fdrv.ko
setprop vendor.init.lpm.load 1
```

```
on property:vendor.driver.lpm.load=1
setprop vendor.init.lpm.load 1
```

```
on property:vendor.init.lpm.load=1
```

修改 android/device/softwinner/common/config/wireless/initrc/init.wireless.bluetooth.rc

```

BOARD_WIRELESS_SYSTEM_PROPERTIES :=

WIRELESS_CONFIG_PATH      := device/softwinner/common/config/wireless

SUPPORTED_WIFI_VENDOR     := broadcom realtek xradio sprd ssv aic common
SUPPORTED_BLUETOOTH_VENDOR := broadcom realtek xradio sprd aic common

SAVED_PRODUCT_COPY_FILES  := $(PRODUCT_COPY_FILES)
PRODUCT_COPY_FILES        :=
BOARD_BLUETOOTH_CONFIG_DIR ?= $(TARGET_DEVICE_DIR)/configs/bluetooth
.
.
.

else ifeq ($(BOARD_WIFI_VENDOR),ssv)
    BOARD_WLAN_DEVICE      := ssv
    BOARD_WPA_SUPPLICANT_PRIVATE_LIB := lib_driver_cmd_ssv
    BOARD_HOSTAPD_PRIVATE_LIB  := lib_driver_cmd_ssv
    BOARD_WIRELESS_PROPERTIES += wifi.direct.interface=p2p0
    -include hardware/ssv/wlan/firmware/$(BOARD_USR_WIFI)/device-ssv.mk
else ifeq ($(BOARD_WIFI_VENDOR),aic)
    BOARD_WLAN_DEVICE      := aic
    BOARD_WPA_SUPPLICANT_PRIVATE_LIB := lib_driver_cmd_aic
    BOARD_HOSTAPD_PRIVATE_LIB  := lib_driver_cmd_aic
    BOARD_WIRELESS_PROPERTIES += wifi.direct.interface=p2p0
    -include hardware/aic/wlan/firmware/$(BOARD_USR_WIFI)/device-aic.mk
else ifeq ($(BOARD_WIFI_VENDOR),common)
    BOARD_WLAN_DEVICE      := common
    BOARD_WPA_SUPPLICANT_PRIVATE_LIB := lib_driver_cmd_common
    BOARD_HOSTAPD_PRIVATE_LIB  := lib_driver_cmd_common
    BOARD_WIRELESS_PACKAGES    += libwifi-hal-package
    -include hardware/aw/wireless/wlan/firmware/firmware.mk
.
.
.

else ifeq ($(BOARD_BLUETOOTH_VENDOR),sprd)
    BOARD_HAVE_BLUETOOTH_SPRD := true
    BOARD_BLUETOOTH_BDROID_BUILDCFG_INCLUDE_DIR      ?=
$(TOP_DIR)hardware/sprd/libbt/conf/sprd/marlin3/include
    -include hardware/sprd/libbt/conf/sprd/runtime/bt_copy_file.mk
else ifeq ($(BOARD_BLUETOOTH_VENDOR),aic)
    BOARD_HAVE_BLUETOOTH_AIC := true
    BOARD_CUSTOM_BT_CONFIG    :=
$(BOARD_CUSTOM_BT_CONFIG_TMP)
    -include

```

```

hardware/aic/libbt/firmware/${BOARD_HAVE_BLUETOOTH_NAME}/aic-bt.mk
    else ifeq ($(BOARD_BLUETOOTH_VENDOR),common)
        BOARD_HAVE_BLUETOOTH_COMMON := true
        BOARD_CUSTOM_BT_CONFIG := $(BOARD_CUSTOM_BT_CONFIG_TMP)
        BOARD_WIRELESS_FILES +=
$(BOARD_BLUETOOTH_CONFIG_DIR)/bt_vendor.conf:$(TARGET_COPY_OUT_VENDOR
)/etc/bluetooth/bt_vendor.conf
        BOARD_WIRELESS_FILES +=
$(BOARD_BLUETOOTH_CONFIG_DIR)/rtkbt.conf:$(TARGET_COPY_OUT_VENDOR)/etc/
bluetooth/rtkbt.conf
        BOARD_WIRELESS_PACKAGES += libbt-package libbt-aic wireless_hwinf
o
        -include hardware/aw/wireless/bluetooth/firmware/firmware.mk
    endif
    $(call
soong_config_add,vendor,board_bluetooth_vendor,$(BOARD_BLUETOOTH_VENDOR))
else
    GLOBAL_REMOVED_PACKAGES += Bluetooth

```

修改 android/device/softwinner/common/config/wireless/wireless\_config.mk