

Bluetooth Porting Guide

Version 1.0.1

Display Audio

Solution Team



Release information

The following changes have been made to this document.

Change History

Date	Change
07 Dec 2017	First release for v1.0.0
18 Feb 2019	Second release for v1.0.1

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Chap 1. Configuration

1.1 Supported Bluetooth module

NXBT100, AW-256SM

1.2 Path

kernel/kernel-4.4.x/arch/arm/configs/s5p4418_daudio_ref_defconfig

1.3 Kernel configuration

Enter configuration mode as follows.

```
$ cd kernel/kernel-4.4.x
$ make ARCH=arm s5p4418_daudio_ref_defconfig
$ make ARCH=arm menuconfig
```

Check the required items as follows.

```
[*] Networking support —>
  <*> Bluetooth subsystem support —>
    [*] Bluetooth Classic (BR/EDR) features
  <*> RFCOMM protocol support
    [*] RFCOMM TTY support
  <*> BNEP protocol support
    [*] Multicast filter support
    [*] Protocol filter support
  <*> HIDP protocol support
    [*] Bluetooth High Speed (HS) features
    [*] Bluetooth Low Energy (LE) features
    [*] Export Bluetooth internals in debugfs
      Bluetooth device drivers —>
        <*> HCI UART driver
        -*- UART (H4) protocol support
        [*] Broadcom protocol support
        <*> Enable BCM43454 driver
```

```
<*> RF switch subsystem support —>  
    [*] RF switch input support  
    <*> Generic rfkill regulator driver  
    <*> GPIO RFKILL driver
```

Apply config file as follows.

```
$ make ARCH=arm savedefconfig  
$ cp defconfig arch/arm/configs/s5p4418_daudio_ref_defconfig
```

Chap 2. Porting

2.1 DTSL setting

2.1.1 Path

kernel/kernel-4.4.x/arch/arm/boot/dts/s5p4418-audio_ref-common.dtsi

2.1.2 Bluetooth control

```
bt_control {
    compatible = "broadcom,bcm43455bt";
    gpios = <&gpio_c 7 0>;          /* GPIOC7 = BT_EN, output */
    pinctrl-names = "default";
    pinctrl-0 = <&bt_cfg_en>;
    status = "okay";
};
```

2.1.3 Pin configuration

```
bt_cfg_en:bt_cfg_en {
    nexell,pins = "gpio-7";
    nexell,pin-function = <1>;
    nexell,pin-pull = <2>;
    nexell,pin-strength = <0>;
};
```