# MT7620A/N WLAN Driver PA LNA Application Note

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# Document Revision History

| Revision | Date | Author | Description |
|---|---|---|---|
| 1.0 | 2012/12/18 | Pan Liu | Initial Version |
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# 1 MT7620 WLAN Driver PA LNA Application Note

## !!! IMPORTANT !!!

**MT7620A/N Power Design (PA and LNA) Combination Application Note**

## 1.1 Summary

**MT7620A/N provides several power design combination, and MT7620 users MUST choose the correct power design option in Wi-Fi driver depending on the PA or LNA in H/W board design, otherwise the wrong choice would lead H/W board to unrecoverable damage!**

## 1.2 Details

MT7620A/N has 3 power design as following:
1) Internal PA + Internal LNA (for example: MTK MT7620A/N RFB)
2) Internal PA + External LNA
3) External PA + External LNA (for example: MTK MT7620A Outdoor/HP RFB)

MT7620 users must choose the correct one according to the power design on the board. If you don't know which power design you are using, please contant the H/W engineer to make the correct choice.

**Steps for building Wi-Fi driver in SDK :**
**Step 1**. Check if the following 3 .bin files exist or not in SDK.

```
RT288x_SDK/source/vendors/Ralink/MT7620/MT7620_AP_2T2R-4L_external LNA_external PA_V15.BIN
RT288x_SDK/source/vendors/Ralink/MT7620/MT7620_AP_2T2R-4L_external LNA_internal PA_V15.BIN
RT288x_SDK/source/vendors/Ralink/MT7620/MT7620_AP_2T2R-4L_internal LNA_internal PA_V15.BIN
```

If not existed, please place the missing files to the directory from the latest SDK.

**Step 2**. Check if the following text line exists in the RT288x_SDK/source/vendors/Ralink/MT7620/Makefile or not.

```
…
    # Handle several power design for MT7620
…
```

If not, please upgrade the **RT288x_SDK/source/vendors/Ralink/MT7620/Makefile** from the latest SDK.

**Step 3.** Enter Wi-Fi Driver menu in SDK, choose Power Design as following:


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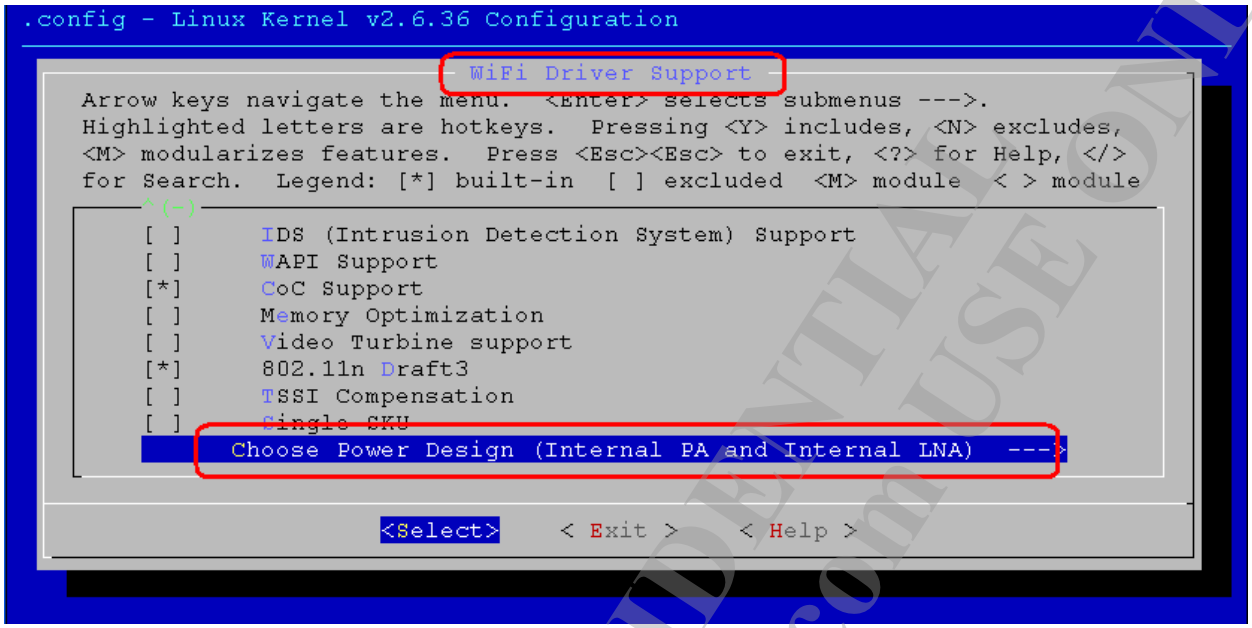
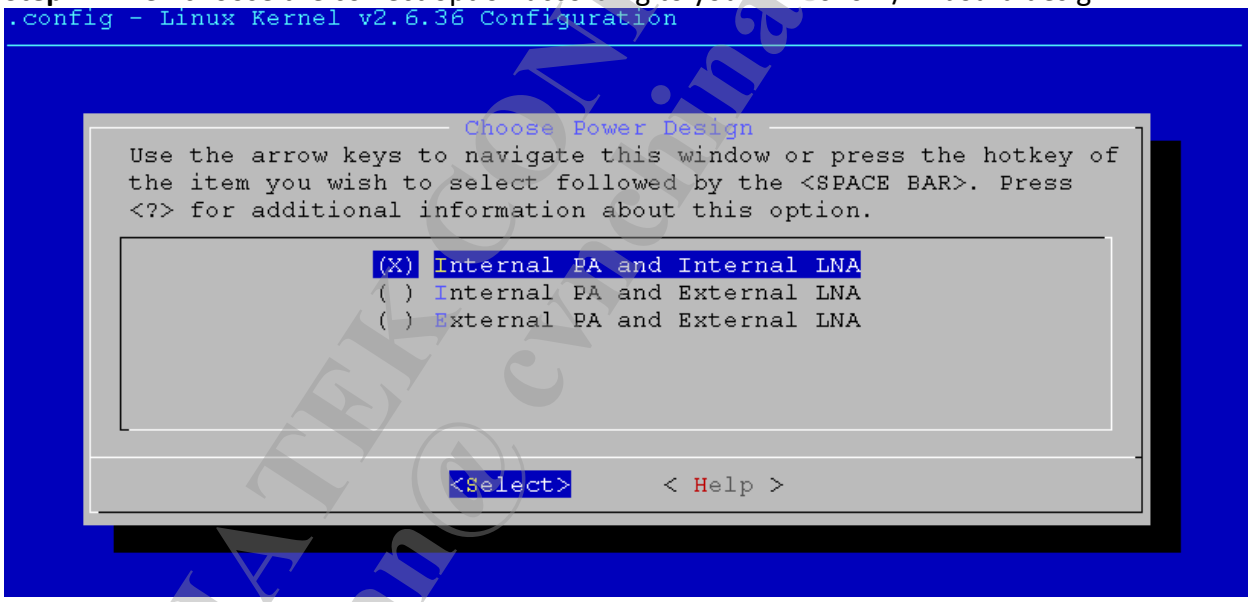



**Step 4:** Then choose the correct option according to your MT7620 H/W board design.




**Step5:**

Type exit menu, then rebuild the SDK and Wi-Fi driver.

## 1.3 Possible Damage Scenario

The customer uses the external PA and external LNA on board, but **incorrectly** choose "Internal PA and Internal LNA" in the Wi-Fi driver. **The external PA on board may get damaged after loading the firmware and booting**.

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