

## 2. LAN to WLAN

(1) PC or NoteBook (Data) → RTL8201BL: PHY

1. Analog signal (Data) is going to transform Digital signal.

(2) RTL8201BL: PHY → RTL8181: LAN MAC+CPU+WLAN MAC+ BASEBAND

1. Digital signal (Data) is going to transform Analog signal.

2. Analog signal (Data) is going to modulate I & Q signal.

(3) RTL8181: LAN MAC+CPU+WLAN MAC+ BASEBAND → SA2400: TRANSCEIVER

1. Automatic Gain Control.

2. Phase Lock Loop.

3. Band Pass Filter.

4. Power Amplifier.

5. Up Converter.

(4) SA2400: TRANSCEIVER → AP1045: PA

1. Signal can be amplifier.

(5) AP1045: PA → TX/RX SWITCH → BPF → ANTENNA → TRANSMIT SIGNAL

### 3. WLAN to LAN

(1) RECEIVE SIGNAL → ANTENNA → BPF → TX/RX SWITCH → RF2472:  
LNA → SA2400 : TRANSCEIVER

1. Automatic Gain Control.
2. Phase Lock Loop.
3. Band Pass Filter.
4. Low Noise Amplifier.
5. Down Converter

(2) SA2400 : TRANSCEIVER → RTL8181: LAN MAC+CPU+WLAN MAC+  
BASEBAND

1. I & Q signal is going to demodulate analog signal.
2. Analog signal is going to transform Digital signal (Data).

(3) RTL8181: LAN MAC+CPU+WLAN MAC+ BASEBAND → RTL8201BL: PHY

1. Digital signal (Data) output from LAN MAC.

(4) RTL8201BL: PHY → PC or NoteBook (Data)

1. Digital signal (Data) is going to transform Analog signal.

#### 4. WLAN to WLAN

(1) RECEIVE SIGNAL → ANTENNA → BPF → TX/RX SWITCH → RF2472:  
LNA → SA2400 : TRANSCEIVER

1. Automatic Gain Control.
2. Phase Lock Loop.
3. Band Pass Filter.
4. Low Noise Amplifier.
5. Down Converter

(2) SA2400 : TRANSCEIVER → RTL8181P: LAN MAC+CPU+WLAN MAC+  
BASEBAND

1. I & Q signal is going to demodulate analog signal.
2. Analog signal is going to transform Digital signal (Data).

(3) RTL8181: LAN MAC+CPU+WLAN MAC+ BASEBAND → SA2400:  
TRANSCEIVER

1. Automatic Gain Control.
2. Phase Lock Loop.
3. Band Pass Filter.
4. Power Amplifier.
5. Up Converter.

(4) SA2400: TRANSCEIVER → AP1045: PA

1. Signal can be amplifier.

(5) AP1045: PA → TX/RX SWITCH → BPF → ANTENNA → TRANSMIT SIGNAL