Circuit Description

1. Data transmission from wired to wireless

Data packets are transmitted to Ethernet PHY D7 (L80223) via X2 (RJ45) interface and then transmitted to D1 (S3C4510B) via MII interface. After the processing of CPU, data are transmitted to wireless network card X6 (NL-2511CD) via PCMCIA interface. Signals will then be transmitted via the antenna on the wireless network card after the processing of the card.

2. Data retransmission from wireless to wired

The wireless network card (NL-2511CD) processes packet signals received via the antenna and sends them to D1 (S3C4510B) via X6 PCMCIA interface. After the processing of CPU, signals will be transmitted to Ethernet D7 (L80223) via MII interface. Ethernet packets will then be sent out via RJ45.

3. Converting 48V to 5V

An external power supply provides the card with 48V power via X2 (RJ45). Passing commutation diode VD10, VD17-VD19 (IN4004L) and then common-mode filter L3 (SH312), the current will enter the transformer converting 48V to 5V and output 5V power. D20 (UC3842) is used to control the on-off of the VT1 (IRF630) switching tube so that DC can be converted to AC via the transformer.