

Circuit Description

The tablet pc can connect to internet with WIFI module. It have multimedia playing, games etc.

The IC-U1(TQFP177P0) is a main control chip with a crystal of 24MHz frequency as base clock signal, to control that the WIFI module(UM02BS) transmitting and receiving the wireless communication signal in the frequency range from 2412MHz to 2462MHz,

The Realtek RTL8188CUS-GR is a highly integrated single-chip QFN-46 pin Wireless LAN (WLAN) network interface controller compatible with the 802.11n specification. It combines a MAC, a 1T1R capable baseband, and RF in a single chip. The RTL8188CUS provides a complete solution for a high throughput performance wireless client.

The RTL8188CUS baseband implements Orthogonal Frequency Division Multiplexing (OFDM) with 1 transmit and 1 receive path and is compatible with the IEEE 802.11n specification. Features include one spatial stream transmission, short guard interval (GI) of 400ns, spatial spreading, and transmission over 20MHz and 40MHz bandwidth.

For legacy compatibility, Direct Sequence Spread Spectrum (DSSS), Complementary Code Keying (CCK) and OFDM baseband processing are included to support all IEEE 802.11b and 802.11g data rates.

Differential phase shift keying modulation schemes, DBPSK and DQPSK with data scrambling capability, are available, and CCK provides support for legacy data rates, with long or short preamble. The high-speed FFT/IFFT paths, combined with BPSK, QPSK, 16QAM, and 64QAM modulation of the individual subcarriers and rate compatible punctured convolutional coding with coding rate of $1/2$, $2/3$, $3/4$, and $5/6$, provide higher data rates of 54Mbps and 150Mbps for IEEE 802.11g and 802.11n OFDM respectively.

The RTL8188CUS builds in an enhanced signal detector, an adaptive frequency domain equalizer, and a soft-decision Viterbi decoder to alleviate severe multi-path effects and mutual interference in the reception of multiple streams. Robust interference detection and suppression are provided to protect against Bluetooth, cordless phone, and microwave oven interference.