

## Function Theorem

WUG2670 is an USB 2.0 interface to Wireless Adapter. The frequency range is from 2400 ~2500 MHz. It combines 802.11 b/g mode—11b mode of CCK modulation technology to producing 11Mbps data rate, and 11g mode of OFDM modulation technology to producing 54 Mbps data.

The transceiver is super heterodyne architecture.

At TX mode: all of digital signals will be modulated on MAC+B.B (U1), delivering I/Q signals to Transceiver(U9) to up convert its frequency to RF frequency (ISM Band). The Transceiver is embedded Power Amplifier—to amplify its power—delivering through antenna.

At RX mode :The antenna receives RF signals then send to transceiver that down converted to IF signal to deliver I/Q signals to MAC\_B.B to demodulate.

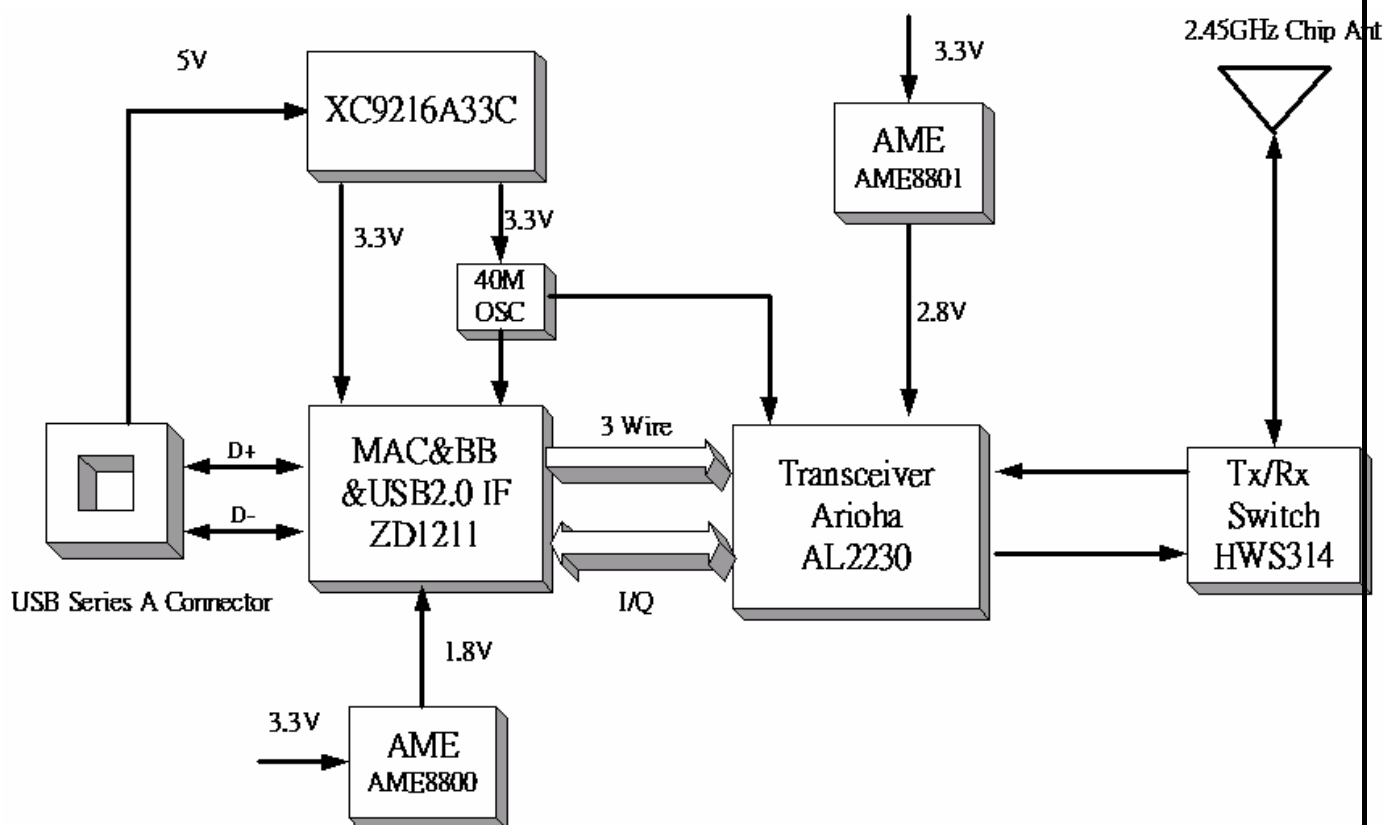


Figure 1 System Diagram

### **ZD1211: BBP+MAC+USB 2.0 I/F Controller**

ZyDAS ZD1211 is a highly integrated, triple mode Wireless LAN (WLAN) MAC and base-band processor that is compatible with IEEE's 802.11g, and 802.11g standards. The ZD1211 includes two different modems; an Orthogonal Frequency Division Multiplexing (OFDM) modem, and a Direct

Sequence Spread Spectrum / Complementary Code Keying (DSSS/CCK) modem. The OFDM modem is compatible with the IEEE 802.11g standards that supports multiple data rates of up to 54 Mbps. The DSSS/CCK modem is compatible with the IEEE 802.11b standard that supports multiple data rates of up to 11 Mbps. These two modems share numerous hardware blocks in order to implement a low cost design. This allows the ZD1211 to operate as either an OFDM modem, or as a DSSS/CCK modem. Furthermore, the ZD1211 includes an processor core that controls the dedicated dual-protocol modem hardware.

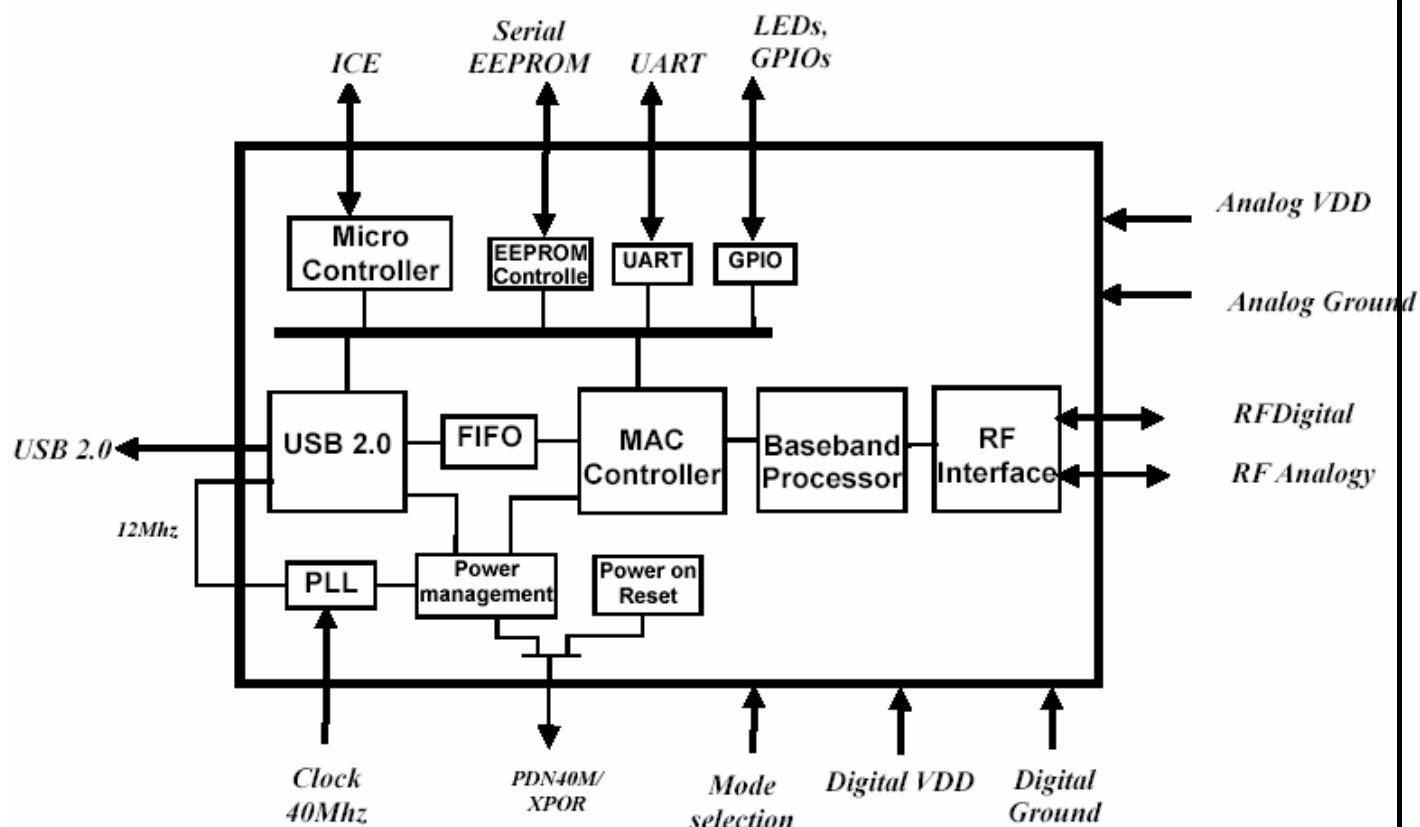


Figure 2 BBP+ MAC+USB 2.0 I/F Block Diagram