This wireless network adaptor （TL0902GU）was designed based on HED08W04SUA (Baseband + MAC) and AL2230S RF transceiver, The HED08W04SUA is a highly integrated, low power WLAN SOC device the combines IEEE 802.11b/g baseband and MAC processors. the BBP integrated into the chip provides the capabilities for all standard 802.11 date rates and support complex encryption and decryption processing. The device includes on-chip ADC and DAC circuitry for IQ analog inputs and outputs. The MAC performs all functions for IEEE 802.11 protocol, the further processes the digital data before depositing it into internal buffers for processing by the internal CPU. Data transfer off-loads to a dedicated DMA engine, which controls data transfers between the host and memory buffer. The AL2230s transceiver and on board RF circuit offers ability to transmit and receive data at carrier frequencies in the 2.4G band which including LNA, PA, up and down Converters, Gain Amplifier, and filter.

TL0902GU is compatible with IEEE802.11b/g, this product uses HED08W04SUA. The RF Chip(AL2230S) modulation/demodulation 2.4GHz RF signal and EEPROM storage Boot loader Firmware. CLOCK supply 40MHz Clock signal for HED08W04SUA and RF chip. The power supply a variety of LDO voltage for wireless LAN adapter. Input 3.3V, Output 1.8V, 2.8V. for the chips on board.