Circuit Description

The EUT is a Smarter Hub (Zigbee getway) that can connect the Zigbee device to the Internet. The main CPU RT5350 boot after powered on. The Flash W25Q128FV is used to stores the main program even power is off. The SDRAM EM63A165TS-6G is used to transfer data while CPU is working normal state. The MFI chip MFI337S3959 is used to support the Apple's phone device.

The daughter board is a Zigbee module that has main CPU, power amplifier and PCB antenna. The PCB antenna receive and transmit Zigbee signal through the a power amplifier SKY66109, then send to main CPU EM3555-I to decode. The maximum power is 16dBm at channel 11-25, -2dBm at channel 26.

The USB port is only used to power the main board, the internal DC-DC conventer buck the 5V to 3.3V and 1.8V to power the CPU. The RJ45 connector connect the Internet to the RT5350 to transfer data.