Circuit Description

The power meter takes samples of the voltage via the AC/DC adapter, takes the samples of the current via the CT sensor, the sample data of the voltage and current is sent to IC ADE7758(utilizing 10MHz OSC) for transforming, calculating and checking, after that, the data is sent to MCU HT46R232 (utilizing 8MHz OSC) for further processing. The MCU gets the exctly time via External timer IC 12058(utilizing 32.768kHz OSC), and access the data via EEPROM IC 24C02. After processed by the MCU, the data is sent to the RF IC A7302(utilizing 13.25MHz OSC), the RF IC transmits the data to the space by 433.5MHz carrier signal with FSK modulation.

The transmitting interval may be 10s/15s/20s, and the power meter could change on the three kind of intervals automatically.

The power is powered by a AC/DC adapter with 120VAC input.