IDT Technology Limited
萬威科研有限公司

Technical Description of THGN801

The THGN801 is outdoor integrated wind sensor with wind speed, wind direction, temperature and humidity. It is operated by 2 pieces of size AAA batteries (DC 3V). The voltage suppied to MCU (MSM64162A) is regulated to DC1.5V, so that the performance of the product can be guaranteed before the battery voltage drops to 1.5V. Also, it can be powered by 3.6Vd.c. solar panel.

THGN801 is a remote transmitter. It converts wake up measurement into OOK signal format and transmits through the RF channel of 433.9MHz. It is consisted of 2 parts: Control part and transmitter part. The MCU outputs the digital data, then this data will be modulated into the Colipittis oscillator, where the SAW Y1(433.92MHz) are used to adjust the operating frequency to 433.9MHz. The transistor Q3, with its fT greater than 6GHz, provide a good frequency response to the oscillator circiutry. The data signal is transfered through matching network(C9 C10 C11 C12 C13 C14 L4 L5) and Pi-network attenuator(R8 R9 R10).