



IDT Technology Limited

萬威 研 究 有 限 公 司

Technical description of RTGN318A

RTGN318A is a Remote thermal-humid sensor with RF reception clock. It is operated by 1 piece of size AA batteries (DC 1.5V). The thermal-humid measurement data and clock data will be transferred to the receiver unit through 433.9MHz. It composes a controller part (MCU: TM8726) and a transmitter part. The transmitter is basically a Colpitts oscillator, where C25, C22 and Y1 are used to determinate the resonant frequency that is 433.9MHz. Transistor Q7 whose f_T is greater than 6GHz, provides a good frequency response to the oscillator circuit. The data signal is transferred through matching network (C21 C20 C19 C17A C14 L5 L4 L3A L6) and Pi-network attenuator(R19 R20 R21). There is a LC filtering circuitry, L1 and C11, that is used to suppress harmonics of the oscillator, and radiate by 2pcs spring antennas.

