Technical Description of TE109-EL-NL

TE109 is operated by single micro-controller. The MCU provides the features of Indoor Thermo (by sensing the thermistor RT1), and the communication of the remote thermo module. For the remote thermo part, it is simply a UHF (Ultra High Frequency) receiver and its center frequency is 433.92 MHz. It employs the super-regenerative receiver technique. The LC circuitry L3, C8, C9 and C6 provides frequency selection and it is set to 433.92 MHz.

Signal is received by an antenna and amplified by Q1. By extracting the collector output of the transistor Q2 a regenerated signal is obtained. The circuitry R11 and C14 acts as a low-pass filter that extracts the envelope of the regenerated signal. Demodulated signal is obtained from the output port of the operational amplifier, pin 1 of U1-A. The other part of U1 composes a schmitter-trigger circuitry that converts the demodulated signal into pulses that can be read by micro-controller.

On the other hand, U1 is also provided a simply alarm clock function. User can adjust the clock by setting keys.

Unit 2304-06, 23/F., Riley House,
88 Lei Muk Road, Kwai Chung, N.T., Hong Kong

Tel : (852) 2276-3000 or (755) 2797-4962
Fax : (852) 2480-5372 or (755) 2797-3055