

Technical Description of KR5521A

KR5521A (EUT) is an AM-FM radio with a 433MHz receiver which receives the outdoor temperature data from corresponding transmitter. The EUT has line-in features.

1. MK9A50 (U1) is an 8-bit MCU which also driving LCD display (LCD1).
2. LED (D5) and Q2 provide backlight features for the LCD display.
3. Y1 is 32768Hz crystal providing system clock for MCU (U1) and as well as air pressure/temperature sensor (U200).
4. U2 and U4 are 3.3V voltage regulators.
5. KT0922M (U5) is a digital AM/FM radio tuner. Q4 is for selecting AM or FM.
6. Y2 is 32768Hz crystal providing reference clock for U5.
7. 24C02 (U7) is serial 2K EEPROM for U5 configuration setup programming.
8. TDA2822 (U6) is dual power amplifier but driving loudspeaker in mono.
9. Q100 acts as the 433MHz super-regenerative receiver.
10. SGM358YS (U100) is a CMOS op-amp comparator for data recovery.
11. HP02S (U200) is a piezo-resistive pressure and temperature sensor module.
12. CHR02 (RH) is a humidity sensor.
13. Alarm feature is provided by a Buzzer (BZ) which is driven by Q1.

The EUT is powered by 5X 1.5V "AAA" batteries and/or 120VAC.