

U5X-RF245-2

OPERATIONAL DESCRIPTION

The RF245-2 is a small keypad with a wireless transmitter. The device transmits keypresses for the purpose of controlling a security system. A microcontroller monitors the keypad and transmits data packets when valid keypresses are detected.

The transmitter circuit consists of a 319.5MHz SAW resonator, an oscillator transistor, an amplifier transistor, and associated passives. The amplifier stage is turned on and off to modulate the carrier. A printed antenna on the PCB radiates the RF signal.

The transmitted packet is ASK modulated and has an on-time of 9.55ms. Precautions are taken in the firmware to ensure that there is at least 100ms between packets.