

## Circuit Description

1. Function operation kit such as SW and CH input operation codes to Control MCU (U1), U1 through RF MCU (U6) Configure & control RF module with 4 wire SPI connection.
2. RF module implements digital baseband process including support for channel configuration, packet handling, and data buffering.
3. RF module's transmitting part is based on a direct synthesis of the RF frequency part with an external 26M Crystal Oscillator(X2) .RF module outputs 2.4G 0dbm signal first with FSK modulation, then PA part of RF module amplifies signal to 10dbm.
4. The RF signal is amplified by the lownoise amplifier (LNA) and down-converted in quadrature (I and Q) to the intermediate frequency (IF).
5. Transmitting signals pass through sets of LC match circuit linking to a 50Ω omnidirectional antenna which provides about 2dbi gain. The ground of antenna is linked to the ground of RF control system.