

## **Description:**

- 1. Block (1), (2), (3) are used for transmitting circuit.**
- 2. Block (5), (6), (7), (8), (9) are used for receiving circuit.**
- 3. Block (1): VCXO (Voltage Controlled Crystal Oscillator) circuit is used for frequency modulation.**
- 4. Block (2): Buffer amplifier is used to amplify the signal from VCXO.**
- 5. Block (3): Frequency multiplier with power amplifier is used to multiply the frequency from 48.2133MHz to 433.92MHz.**
- 6. Block (4): Circulator is used for TX/RX interface.**
- 7. Block (5): RF signal Amplifier.**
- 8. Block (6): Frequency mixer. It mixes the RF signal with OSC frequency.**
- 9. Block (7): Oscillator.  $f_o=45.8355\text{MHz}$      $9f_o=412.52\text{MHz}$**
- 10. Block (8): Band Pass Filter (BPF) for IF.**
- 11. Block (9): FM IF amplification, detection, demodulation, FSK signal output to CPU.**