

The transmitter consists of below parts:

- 1) 4.2V battery
- 2) Power supply control circuit: IC3, Q7, Q13, Q18
- 3) Microprocessor controller (MICRO-CONTROL UNIT): IC7 and Reset Circuit: C127, Q3, Q22, X1 (4MHz crystals)
- 4) Audio signal processing circuit: IC5, IC8
- 5) Voltage-controlled oscillator(VCO)and Phase-locked loop(PLL) integrated circuit IC6 and Q27, X2 (10.475MHz crystals)
- 6) RF signal amplification circuit: Q11, Q2, Q1, Q12, Q15
- 7) Matched circuit: L1, L7, C6, C9, C17, C3 and Transmitting antenna.

Power supply control circuit provides 3V stable voltage.

VDD1 is 3V stable voltage output by IC3, Provided to the MCU and RF amplification.

VDD2 provided to all other circuits except RF amplification and MCU.

X1 is 4MHz crystals oscillator as clock source of MICRO-CONTROL UNIT.

Audio signal processing circuit deal with the speech signal from the Microphone by amplified and compressed.

X2 is 10.475MHz crystals as reference frequency of IC6. speech signal are modulated at by VCO and PLL.

The device is battery-powered, speech signal was amplified by amplified circuit, then speech signal are modulated by VCO and PLL and amplified, then radiate the RF signal to the sky via antenna through matched network, and complete the data-transmitting process wirelessly.