



### Specification

- Frequency generator : Sine , Square, Triangular
- Frequency range : 1Hz ~ 100 KHz

### Audio input

- Audio preamplifier with microphone

### FM modulators

- Varactor modulator and frequency modulator
- Operating frequency : Adjustable from 400KHz ~ 500 KHz
- Input amplitude : 0.1Vpp with integration circuit for indirect frequency modulation

### PM modulator

- Operating frequency : Adjustable from 400 KHz ~ 500 KHz
- Input amplitude : 0.5 Vpp with integration circuit for indirect frequency modulation

### Mixer (frequency converter)

- Dual gate MOSFET inputs : Local oscillator and RF signal
- Output IF frequency : 455 KHz adjustable
- IF filter : Dual tune LC
- Transmitter output : 455 KHz frequency

### Switch faults

- 4 switch faults are provided on board to study different effects on circuit

### Power supply

- GND, +5V, +12V, -12V

### Experiments

- Study of varactor modulator
- Study of frequency modulation via phase modulator
- Study of phase modulation
- Voice transmission on various modulation methods
- Effect of switch faults

Note: Specifications are subject to change.