Specification

Super heterodyne AM receiver

- Frequency : 400 KHz ~ 1.5MHz
- Intermediate frequency : 455 Khz
- Output IF frequency : 455 Khz adjustable
- IF filter : Dual tune LC
- RF amplifier with variable gain

Mixer (frequency converter)

- Output frequency : 455KHz adjustable
- Band pass filter : 455 KHz center frequency

Local oscillator

- Frequency : Sine wave
- Load impedance : 900KHz ~ 2.1MHz
- Output impedance : Adjustable from 0 to 2Vp-p

1st IF and 2nd IF amplifier

- Central frequency : 455 KHz
- Load impedance : Variable R-L-C
- Gain : 40dB with automatic gain control

Diode envelope detector

- Detection of the positive and negative envelope with variable RC filter DSB

Product detector

- Operating frequency : Adjustable from 400 KHz ~ 500 KHz SSB
- Input amplitude : 1Vpp

Audio output

- Amplifier with speaker
- Audio amplifier gain : 20dB
- Receiving media

Switch faults

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

Experiments

- Study of DSB, SSB reception using envelope diode detector and product detector
- Study of image frequencies
- Study of adjustment of receiver tuned circuits
- Voice reception using DSB/ SSB AM receiver (super heterodyne receiver)

Note: Specifications are subject to change.

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