

## VCALL Systems Inc. RF Receiver (THIBRX01)

The receiver is a single-conversion superheterodyne consisting of a single integrated circuit which contains all necessary functions including mixer, local oscillator, IF subsystem, demodulator and data slicer. No other active devices are used except for one transistor which serves as a digital output driver. The nominal operating frequency is 303.825 MHz and the demodulator accepts on/off keyed signals. The local oscillator employs a crystal resonator at 48.85417 MHz followed by doubler and tripler stages which frequency multiply it to 293.125 MHz for application to the mixer. The intermediate frequency is 10.7 MHz. Current drain is approximately 5 milliamps at 5 volts DC. Only one tuning adjustment is provided, namely the tripler tank circuit at 293.125 MHz.