

## **Operation Description**

### Visteon Superregenerative SIP Receiver

The device is a low power, high sensitivity 315 MHz superregenerative receiver with high selectivity designed and laid out on a Single In-line Package (SIP) for use in conjunction with a host CPU/Control module in low bit rate wireless communication applications using ASK modulation. It is 5.5 x 2.5 cm in size and has six I/O connections: 12 vdc in, antenna in, (2 ea.) ground, data out, and wake-up out.

The SIP features an LC tuned front end with cascade pre-amplifiers, followed by an LC tuned regenerative detector. The detector is tuned to 315 MHz, while the quenching frequency is set to about 1.5 MHz. The detected data is then buffered, filtered, amplified, and "detected" by a comparator which then sends the data out to the host board.

The SIP receiver has on-board 5-volt regulator. The antenna is external to the SIP and is typically mounted or printed on the host board.