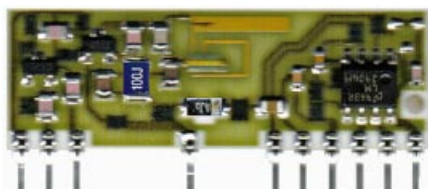


RR10-XXX

Narrow Bandwidth Super Regenerative Radio Receiver - Laser Trimmed Inductor



General description

The RR10-XXX is a super regenerative data receiver. Sensitivity typically exceeds -100dBm ($2.2\mu\text{Vrms}$) when matched to $50\ \Omega$.

Narrow Bandwidth:

| | |
|-------|------------|
| -3dB | +/- 1.5MHz |
| -30dB | +/- 5MHz |
| -50dB | +/- 7MHz |

The frequency accuracy is very high thanks to laser trimming process. PATENTED.

I-ETS 300-220 Compliance

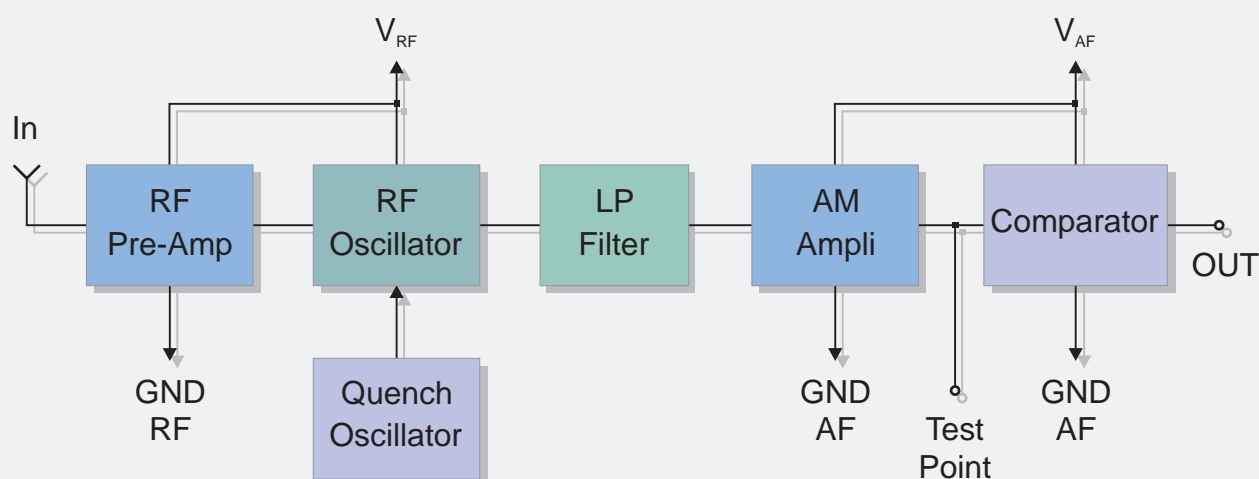
XXX: custom-specified working frequency
($200 \div 450\ \text{MHz}$)

Standard European and U.S. frequencies (315MHz , 418MHz , 433.92MHz) are readily available from stock.

Applications

- Home security systems
- Car Alarm systems
- Remote gate controls
- Sensor reporting

BLOCK DIAGRAM



Electrical Characteristics

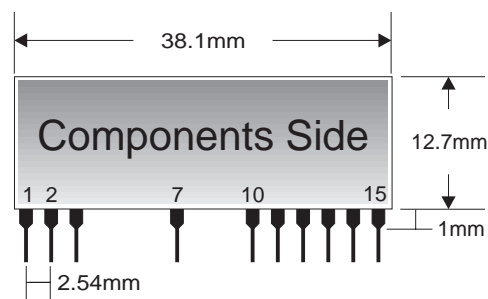
Ta = 25°C unless otherwise specified

| CHARACTERISTICS | | MIN | TYP | MAX | UNIT |
|-----------------|-----------------------------|------|--------|--------|------|
| V _{RF} | RF Supply Voltage | 4.5 | 5 | 5.5 | VDC |
| V _{AF} | AF Supply Voltage | 4.5 | 5 | 5.5 | VDC |
| I _S | Supply Current | | 1.2 | 1.5 | mA |
| F _W | Working Frequency | 200 | | 450 | MHz |
| | Tuning Tolerance | | +/-0.2 | +/-0.5 | MHz |
| B _W | -3dB Bandwidth | | +/-1.5 | +/-2 | MHz |
| | Max Data Rate | | | 2 | KHz |
| | RF Sensitivity (100% AM) | -100 | -102 | | dBm |
| | Level of Emitted Spectrum | | -65 | -60 | dBm |
| V _{ol} | Low-Level Output Voltage | | | 0.6 | V |
| V _{oh} | High-Level Output Voltage | 3.6 | | | V |
| T _{OP} | Operating Temperature Range | -25 | | +80 | °C |

Pin Description

| | | | |
|---|---------------------|----|---------------------|
| 1 | RF +V _{CC} | 9 | NC |
| 2 | RF GND | 10 | AF +V _{CC} |
| 3 | IN | 11 | AF GND |
| 4 | NC | 12 | AF +V _{CC} |
| 5 | NC | 13 | Test Point |
| 6 | NC | 14 | OUT |
| 7 | RF GND | 15 | AF +V _{CC} |
| 8 | NC | | |

Mechanical Dimensions



TYPICAL APPLICATION

