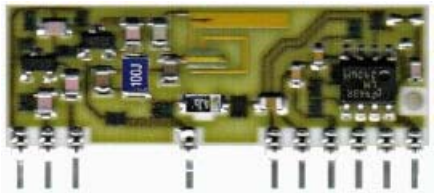
Radio Receiver

RR10-XXX

Narrow Bandwidth Super Regenerative Radio Receiver - Laser Trimmed Inductor



General description

The RR10-XXX is a super regenerative data receiver.

Sensitivity typically exceedes -100dBm (2.2uVrms)
when matched to 50 ohm.

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

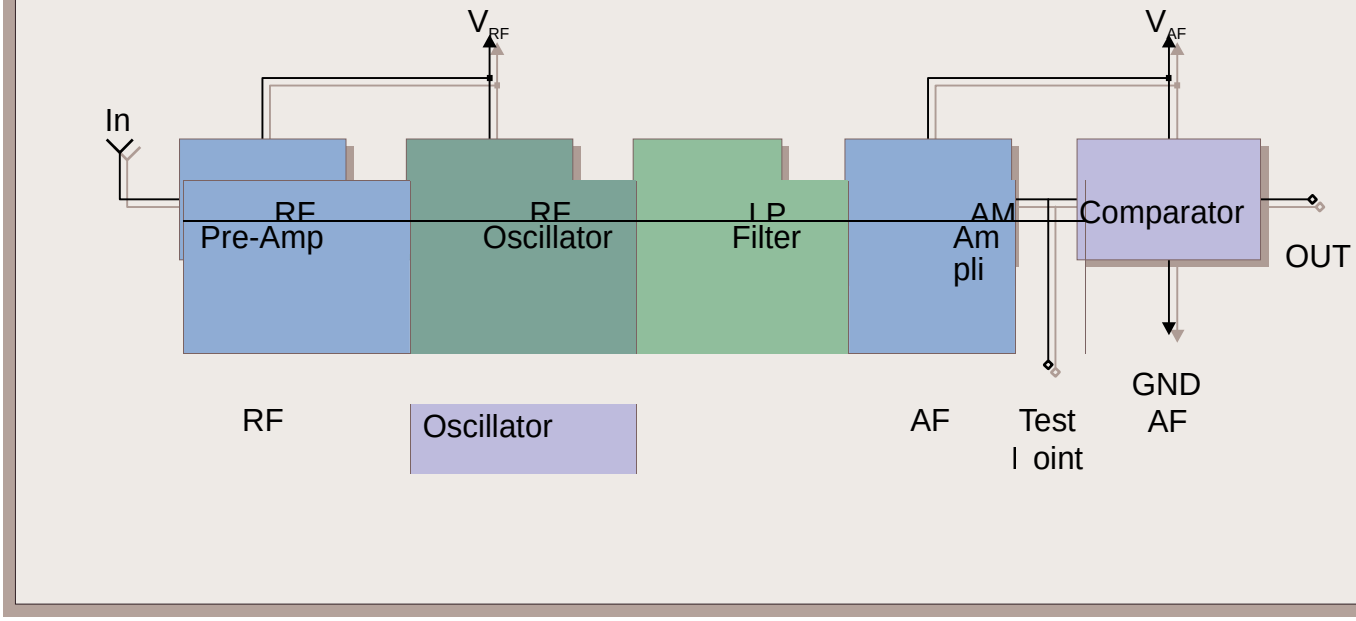
XXX: custom-specified working frequency (200 ÷ 450 MHz)

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

Applications

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

BLOCK DIAGRAM



Electrical Characteristics

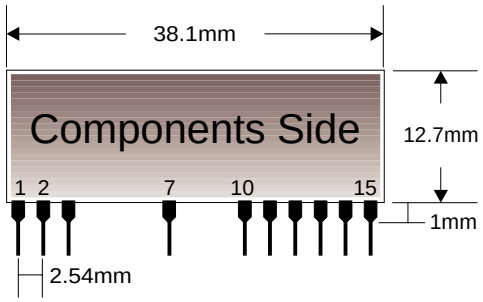
Ta = 25°C unless otherwise specified

	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