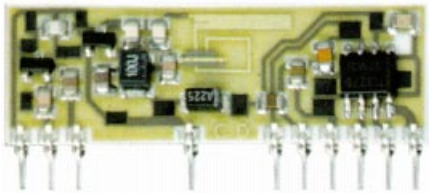
Radio Receiver

telecontrolli

RR5-XXX-LC/VLC

Low Consumption Super Regenerative Radio Receiver - Laser Trimmed Inductor



General description

The RR5-XXX is a super regenerative data receiver.

Sensitivity typically exceedes -95dBm when matched to 50 ohm.

Typical current consumption is 1.2mA (LC model) or 0.8 mA (VLC model).

It shows high frequency stability also in presence of mechanical vibrations, manual handling and in a wide range of temperature.

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

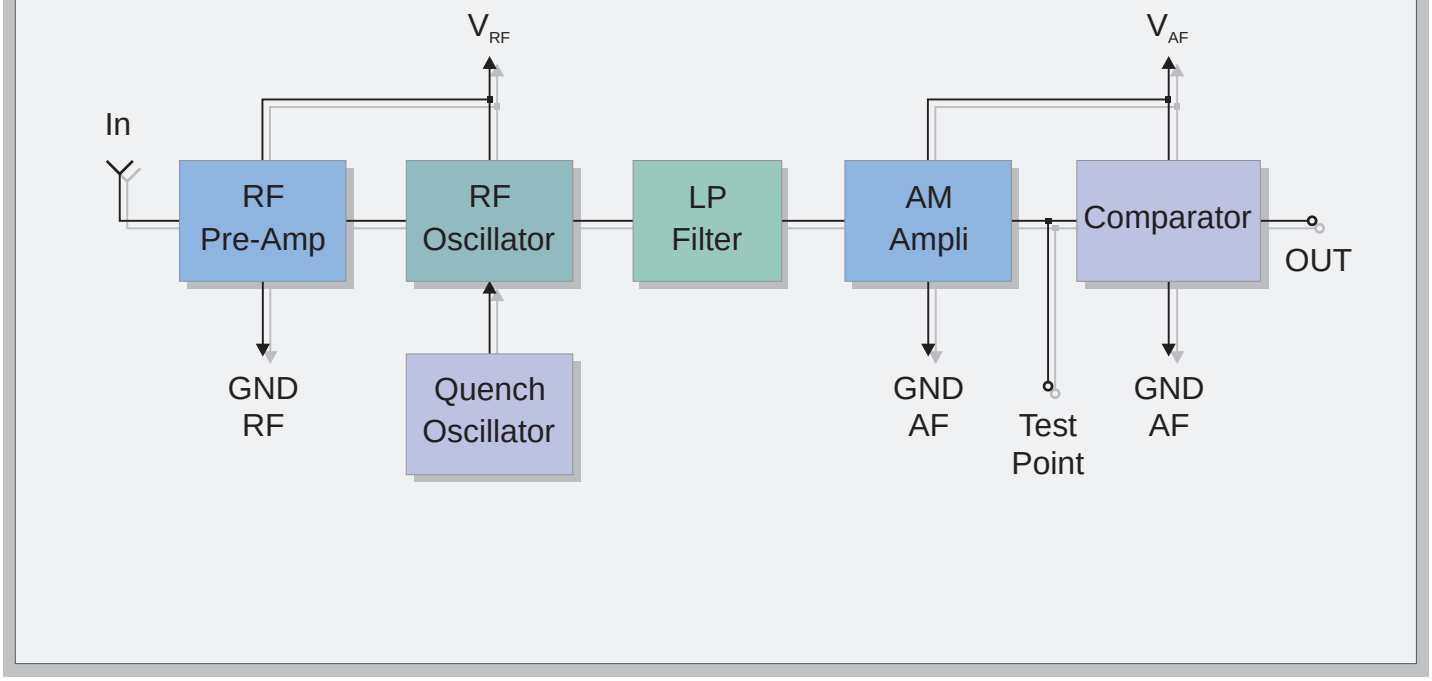
XXX: custom-specified working frequency (200 ÷ 450 MHz)
LC : Is = 1.2 mA
VLC : Is = 0.8 mA

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

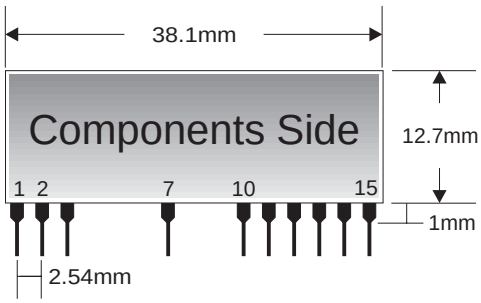
Ta = 25°C unless otherwise specified

	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	LC VLC		1.2 0.8		mA
F_W	Working Frequency		200		450	MHz
	Tuning Tolerance			±0.2	±0.5	MHz
B_W	-3dB Bandwidth			±2	±3	MHz
	Max Data Rate				2	KHz
	RF Sensitivity (100% AM)	LC VLC		-96 -94		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

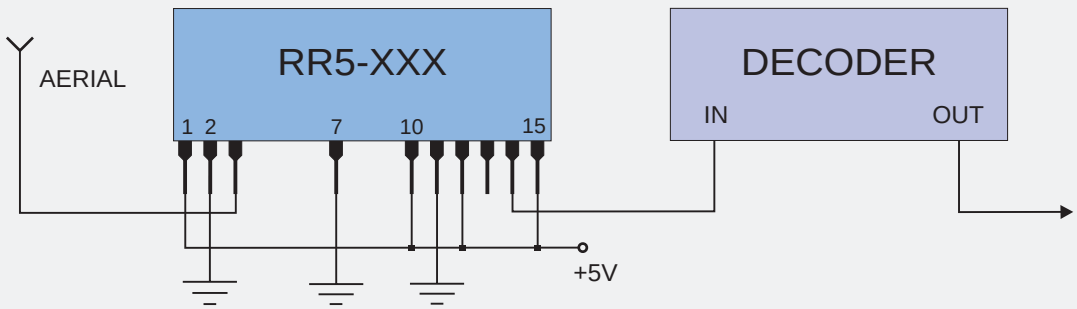
Pin Description

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



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