# **RR4-XXX**

Super Regenerative Radio Receiver With Laser Trimmed Inductor and Cascode Input Stage



#### **General description**

The RR4-XXX is a super regenerative data receiver.

Sensitivity typically exceedes -100dBm (2.2uVrms)

when matched to 50 ohm.

Emission level: -70 dBm typ (Cascode Input)

-3dB Bandwith: +/-1.5 MHz typ

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.

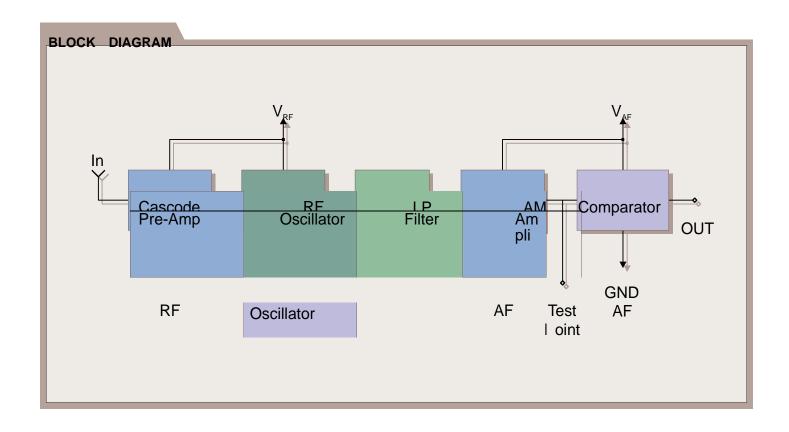
## I-ETS 300 220 Compliance (RR4-433.92)

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

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



### **Electrical Characteristics**

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$Ta = 25^{\circ}C$ 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		2.5	3	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	-105		dBm
	Level of Emitted Spectrum		-70	-65	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**

## **Mechanical Dimensions**

1	RF +V <sub>cc</sub>	9	NC
2	RF GND	10	NC
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		

