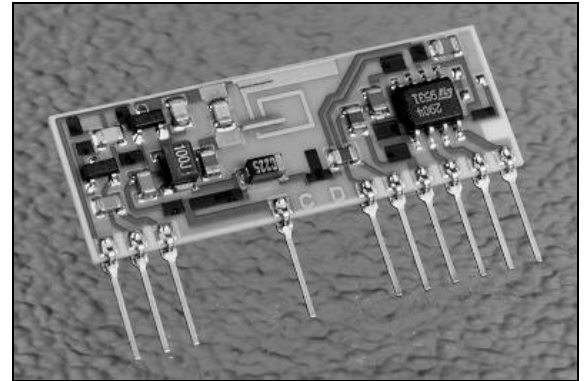


FEATURES

- COMPACT HYBRID MODULE.
- VERY HIGH FREQUENCY STABILITY (with no adjustable components).
- RECEIVING RANGE UP TO 45 METRES.
- CMOS/TTL COMPATIBLE OUTPUT.
- LOW CURRENT CONSUMPTION;
 - ⇒ RR3 TYP 2.5mA.
 - ⇒ RR6 TYP 0.5mA.
- SINGLE SUPPLY VOLTAGE 5V.
- COMPATIBLE WITH R.F. SOLUTIONS AM TRANSMITTERS.
- PATENTED LASER TRIMMED INDUCTOR.
- AVAILABLE FROM 250-450MHz
- COMPLIANT TO ETSI 300-339 (CE).
- REQUIRES NO RADIO LICENCE TO OPERATE.



DESCRIPTION

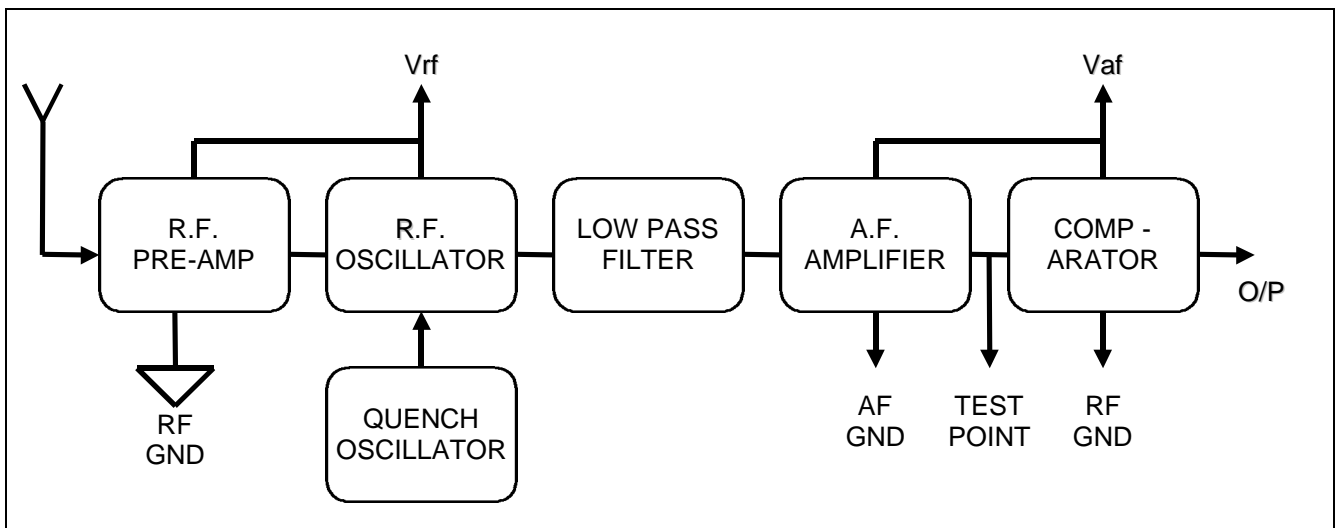
The R.F. Solutions AM Receiver modules are compact hybrid RF receivers, which can be used to capture undecoded data from any 418 or 433MHz AM Transmitter, such as R.F. Solutions AM-TX1, or AM-RT4 / 5 range of transmitters. (See AM Transmitter data sheet)

These modules show a very high frequency stability over a wide operating temperature even when subjected to mechanical vibrations or manual handling.

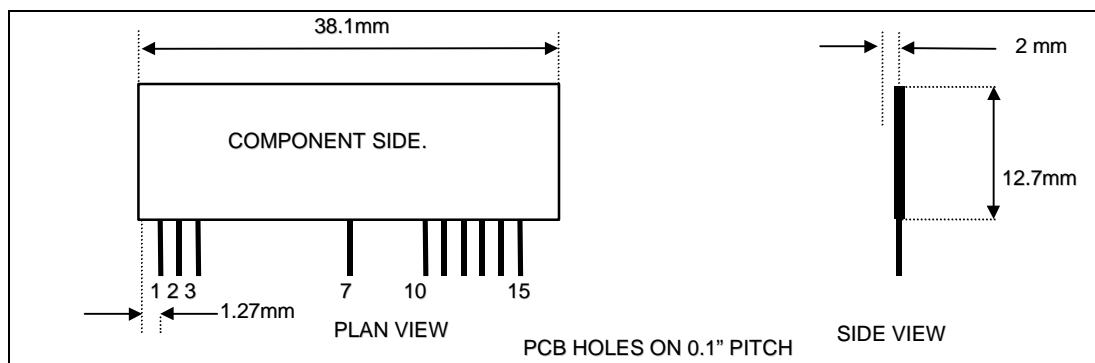
A unique laser trimming process which has been patented gives a very accurate on board inductor, removing the need for any adjustable components.

The RR6 is a version with Very Low Current consumption which has a typical quiescent current drain of only 0.5mA. All receivers are compatible, producing a CMOS/TTL output, and require connections to power and antenna only.

BLOCK DIAGRAM



MECHANICAL DETAILS



PIN DESCRIPTION

Pin No	Pin Name	Pin No	Pin Name
1	RF +Vcc	8, 9	NC
2	RF GND	10	AF +VCC
3	DATA IN (Ant)	11	AF GND
4	NC	12	AF +VCC
5	NC	13	TEST POINT
6	NC	14	DATA OUT
7	RF GND	15	AF +VCC

Ambient temperature = 25° Celcius.

ELECTRICAL CHARACTERISTICS	MIN	TYPICAL	MAX	DIMENSION
Storage Temperature Range	-30		+85	°C
Operating Temperature Range	-25		+85	°C
RF Supply Voltage (RF+Vcc)	4.5	5	5.5	V
AF Supply Voltage (AF+Vcc)	4.5	5	5.5	V
Supply Current (AM-HRR3-XXX)		2.5	3	mA
Supply Current (AM-HRR6-XXX)		0.5		mA
Working Frequency	200		450	MHz
Tuning Tolerance		+/- 0.2	+/- 0.5	MHz
-3dB Bandwidth		+/- 2	+/- 3	MHz
Max Data Rate			2	KHz
Time from Power HRR3 on to Valid Output Signal		1.2		Secs
Time from Power HRR6 on to Valid Output Signal		150		mSecs
R.F Sensitivity 100% AM (AM-HRR3-XXX)	-100	-105		dBm
R.F Sensitivity 100% AM (AM-HRR3-XXX-LP)		-98		dBm
R.F Sensitivity 100% AM (AM-HRR6-XXX)		-95		dBm
Level of Emitted Spectrum		-65	-60	dBm
Low Level Output Voltage			0.6	V
High Level Output Voltage	4.5			V

ORDERING INFORMATION	
HRR3-XXX	Receiver Module
HRR6-XXX	Receiver Module Very Low Power

Should you require further assistance, please call;

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RF Solutions is a member of the Low Power Radio Association.

