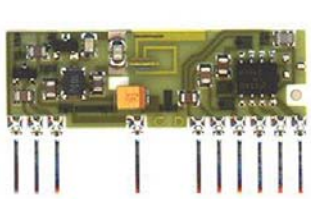
AM-HRR3-xxx AM Receiver Modules
AM-HRR6-xxx

DESCRIPTION

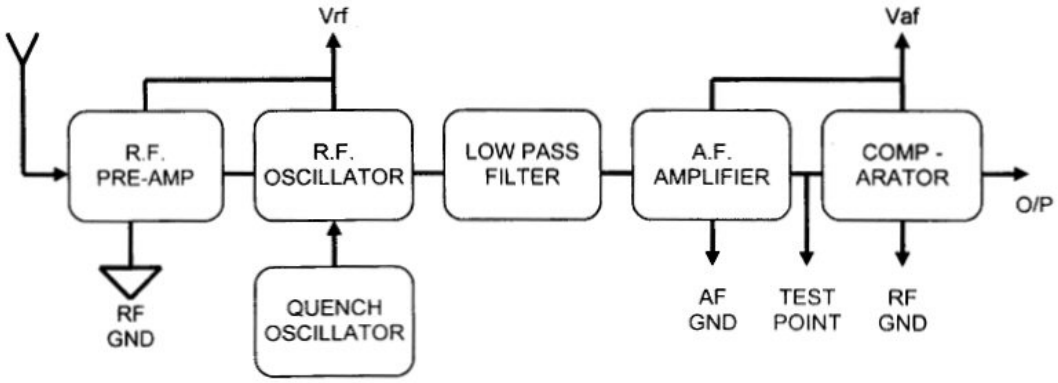
The AM-HRR3/6 AM Receiver modules are compact hybrid RF receivers, which can be used to capture undecoded data from any 315, 418 or 433MHz AM Transmitter, such as the AM-RT5 transmitter modules. The modules exhibit a very high frequency stability over a wide operating temperature even when subjected to mechanical vibrations or manual handling. A unique laser trimming process (now patented) gives a highly accurate circuit inductor (AM-HHR3&6), eliminating the need for any adjustable components as found on most other regenerative receivers. All receivers are pin compatible, providing a CMOS/TTL output. They require connections to power and antenna only. These modules conform to EMC directive ETSI 300-220.

FEATURES



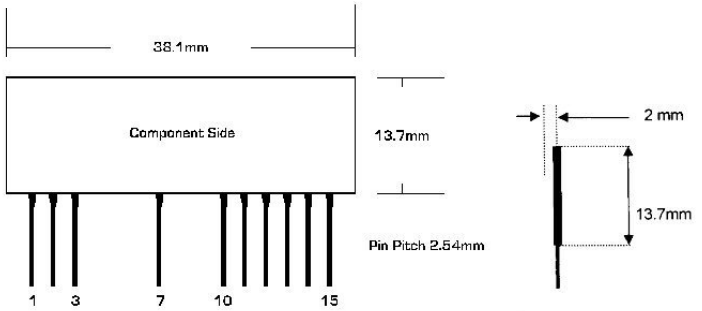
- COMPACT HYBRID MODULE
- VERY HIGH FREQUENCY STABILITY
- WITH NO ADJUSTABLE COMPONENTS
- HIGH SENSITIVITY
- CMOS/TTL COMPATIBLE OUTPUT
- SINGLE SUPPLY VOLTAGE 5V
- LOW CURRENT CONSUMPTION: AM-HRR6 TYP 0.8mA
- PATENTED LASER TRIMMED INDUCTOR (AM-HRR3 &6)
- AVAILABLE ON 315MHz, 418MHz AND 433.92MHz

BLOCK DIAGRAM



ABACOM Technologies, Inc. • 383 Bering Ave • Etobicoke • ON • M8Z 3B1 • Tel +1(416)236-3858 • Fax +1(416)236-8866
www.abacom-tech.com

MECHANICAL OUTLINE



Pin No	Pin No	Pin Name	Pin Name
I	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

SPECIFICATIONS

Ambient Temperature = 25°C

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

ANTENNA

Attach a 1/4 wire antenna connected to pin 3. The length for 315MHz will be 22.7cm, for 418MHz, 17cm and for 433.92MHz, 16.5cm. ABACOM Technologies offers a range of manufactured antenna designed for use with our RF modules and are recommended for best performance.