

AM-RRS3-XXX AM-RRQ3-XXX

- Compact Hybrid Module.
- Ceramic Substrate
- 315 / 433 / 868MHz Available
- Very High Frequency Stability
- Receiving Range Up To 100 Metres.
- CMOS/TTL Compatible Output.
- Single Supply Voltage 5V.
- Operates from -25 +85° C
- Compatible With R.F. Solutions AM Transmitters.
- Compliant to ETS300-220

RRS3

- Sensitivity Typ -106dbm
- Saw Filter Front End.

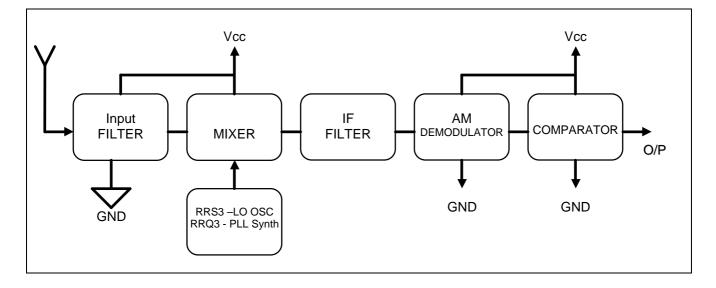
RRQ3

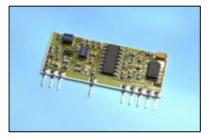
- Sensitivity Typ -107dbm
- PLL Synthesizer Front End
- Sleep Mode

The R.F. Solutions AM Superheterodyne Receivers are compact modules, which can be used to capture undecoded data from any equivalent AM Transmitter, such as R.F. Solutions AM-RT4 range of transmitters. (See AM Transmitter datasheet).

Receivers are manufactured on a ceramic substrate incorporates either a SAW Filter and pre amplifier front end or PLL Synthesizer for maximum sensitivity and reduced EMC emissions. These modules show a very high frequency stability over a wide operating temperature even when subjected to mechanical vibrations or manual handling offering a very cost effective solution.

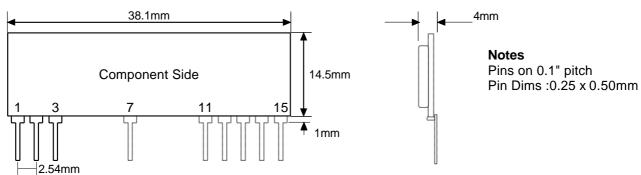
Block diagram







Mechanical Dimensions



Pin Descriptions

RRS3		
Pin No	Pin Name	
1	+Vcc	
2	GND	
3	DATA IN (Antenna)	
7	GND	
11	GND	
12	NC	
13	NC	
14	DATA OUT	
15	+VCC	

RRQ3		
Pin No Pin Name		
1	+Vcc	
2	GND	
3	DATA IN (Antenna)	
7	GND	
11	GND	
12	NC	
13	RSSI (output)	
14	DATA OUT	
15	PD (Power Down input) 0 = Standby Mode (I _{standby} 100nA max) 5V = Normal Operation	

Electrical Characteristics (Applies to all variants below)

Ambient temperature = 25° C.

Electrical Characteristics	Min	Typical	Max	Dimension
Supply Voltage (Vcc)	4.5	5	5.5	V
Supply Current		5	6	mA
Receiver Frequency 315MHz variants		315		MHz
Receiver Frequency 433MHz variants		433.92		MHz
Receiver Frequency 868MHz variants		868.35		MHz
Low Level Output Voltage			0.8	V
High Level Output Voltage	Vcc-1			V
Operating Temperature Range	-25		+80	°C

AM-RRS3 Electrical Characteristics

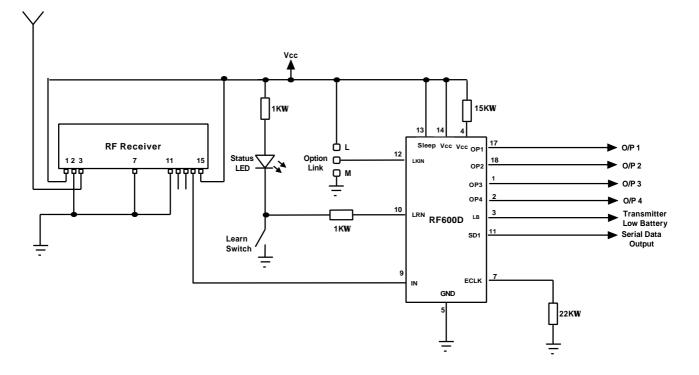
Electrical Characteristics	Min	Typical	Max	Dimension
R.F Sensitivity (100% AM)		-106		dBm
3dB Bandwidth		+/-400		KHz
Max Data Rate			4.8	KHz
Turn on Time (Power on to Data valid)			20	mSecs
Level of Emitted Spectrum		-70	-65	dBm

AM-RRQ3 Electrical Characteristics

Electrical Characteristics	Min	Typical	Max	Dimension
R.F Sensitivity (100% AM)		-107		dBm
3dB Bandwidth		+/-200		KHz
Max Data Rate			4.8	KHz
Level of Emitted Spectrum			-70	dBm



Application Circuit

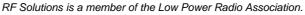


Part numbering

-	
AM-RRS3-315	Receiver Module 315MHz
AM-RRS3-418	Receiver Module 418MHz
AM-RRS3-433	Receiver Module 433MHz
AM-RRQ3-315	Receiver Module 315MHz
AM-RRQ3-433	Receiver Module 433MHz
AM-RRQ3-868	Receiver Module 868MHz

Should you require further assistance, please call;

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