

BR48

SRD	RX	ISM 868 - 870 MHz
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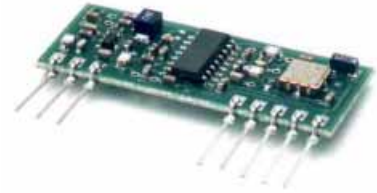


TABLE 1 - BR48 VERSIONS

BR48A5 (1)	868.35 MHz	5VDC	0.9 mA
BR48L5 (1)	868.35 MHz	5VDC	330 μ A
BR48L3	868.35 MHz	5VDC	270 μ A

NOTE (1) : STANDARD VERSIONS WITH EX STOCK AVAILABILITY.
 PLEASE CONTACT THE FACTORY FOR SAMPLES AND AVAILABILITY
 OF NON PREFERRED VERSIONS.

- SUPERREGENERATIVE DETECTOR
- OOK AND GASK MODULATION
- HIGH SENSITIVITY (-94 dBm)
- LOW CURRENT CONSUMPTION

DESCRIPTION:

The BR48 series is based on a simple but highly optimised superregenerative receiver architecture to achieve good sensitivity at a very low power consumption. The receiver has two LC bandpass filters in the RF preamplifier stage to improve the out-of band strong signals rejection. A precision chip trimmer capacitor (CV1 – MURATA TZVY2) is employed to obtain an accurate and stable tune on the receive frequency.

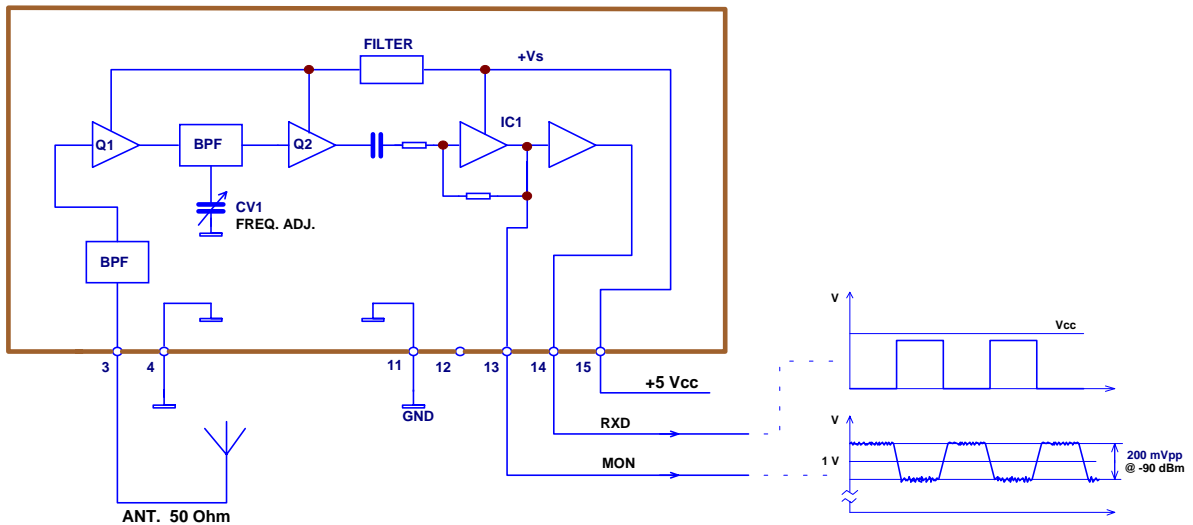


Fig. 1 : BR48 – BLOCK DIAGRAM.

BR48 - PERFORMANCE DATA

		Min	Typ	Max	Units	Notes
▪	FREQUENCY	868	868.35	870	MHz	
▪	SENSITIVITY	BR48A5 – BR48L5 BR48L3	-90 -88	-94 -90	dBm dBm	(1) (1)
▪	SELECTIVITY		±4		MHz	
▪	DYNAMIC RANGE	80	90		dB	
▪	IMPEDANCE		50		Ω	
▪	DATA RATE	150		2400	baud	(2)
▪	DATA MARK/SPACE	20		80	%	(3)
▪	DATA SETTling TIME AT POWER-UP		100		ms	
▪	PULSED DATA SETTling TIME			70	ms	
▪	DATA OUT	BR48A5 – BR48L5	V _{cc} - 1.5		V	(4)
▪	HIGH LEVEL	BR48L3	V _{cc} - 1		V	(4)
▪	SUPPLY VOLTAGE	BR48A5 – BR48L5 BR48L3	4.5 2.7	5 3	5.5 5.5	V V
▪	SUPPLY CURRENT	BR48A5 BR48L5 BR48L3		0.9 400 340	mA μA μA	
▪	OPERATING TEMPERATURE	-20		+60	°C	

NOTE:

(1)	OOK MODULATION – BER 1%.		
(2)	50/50 MARK/SPACE DATA PATTERN (75 - 1200Hz).		
(3)	DATA PULSE TIME: MIN. = 200μs, MAX. = 100ms.		
(4)	LOAD IMPEDANCE > 10 KΩ.		

PIN DESCRIPTION		
PIN 3	ANT	Rf Input
PIN 4	GND	Rf Ground
PIN 11	GND	Ground
PIN 12	N.U.	
PIN 13	MON	Analogue Output
PIN 14	RXD	Data Output
PIN 15	VCC	+Vdc

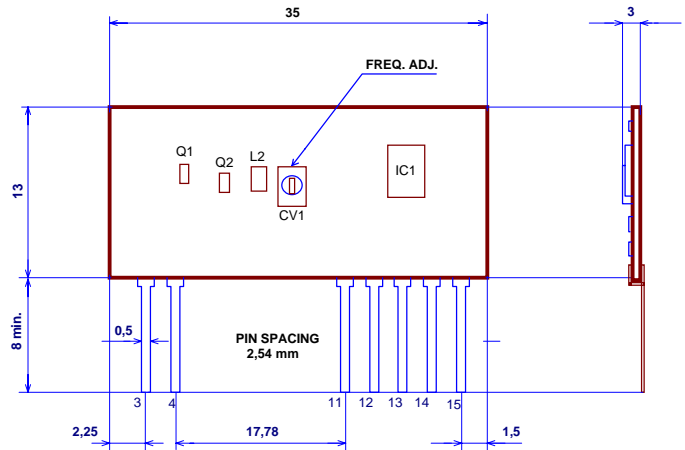


Fig.2 –BR48 PHYSICAL DIMENSIONS.

