

BR47

SRD	RX	ISM 433.050 – 434.790 MHz
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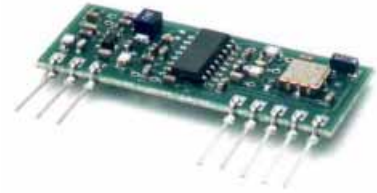


TABLE 1 - BR47 VERSIONS.

BR47A5 (1)	433.92 MHz	5VDC	0.9 mA
BR47L5 (1)	433.92 MHz	5VDC	330 μ A
BR47L3	433.92 MHz	3VDC	270 μ A

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

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

DESCRIPTION:

The BR47 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.

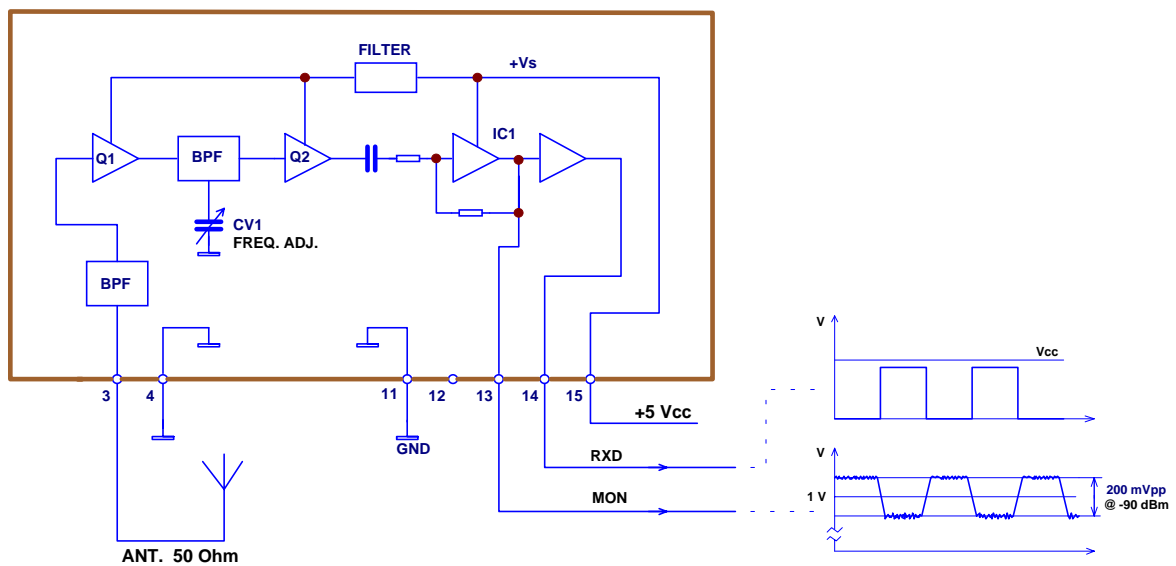


Fig. 1 : BR47 – BLOCK DIAGRAM.

BR47 - PERFORMANCE DATA

		Min	Typ	Max	Units	Notes
▪	FREQUENCY	433.050	433.925	434.790	MHz	
▪	SENSITIVITY	BR47A5 - BR47L5. BR47L3.	-91 -89	-94 -92	dBm dBm	(1)
▪	SELECTIVITY		±2		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 HIGH LEVEL	BR47A5 - BR47L5 BR47L3	Vcc - 1.5 Vcc - 1		V V	(4) (4)
▪	SUPPLY VOLTAGE:	BR47A5 - BR47L5 BR47L3	4.5 2.7	5 3	V V	
▪	SUPPLY CURRENT:	BR47A5 BR47L5 BR47L3	0.9 330 270		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

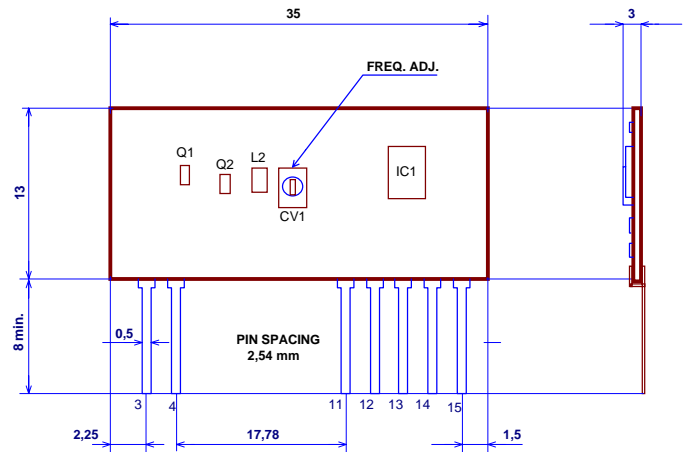


Fig.2 -BR47 PHYSICAL DIMENSIONS.

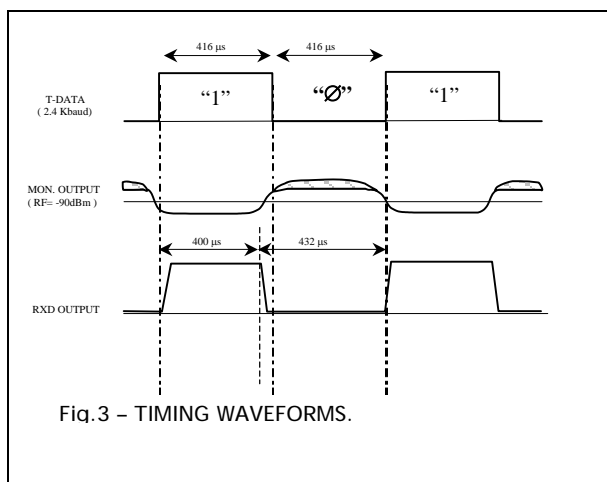


Fig.3 - TIMING WAVEFORMS.

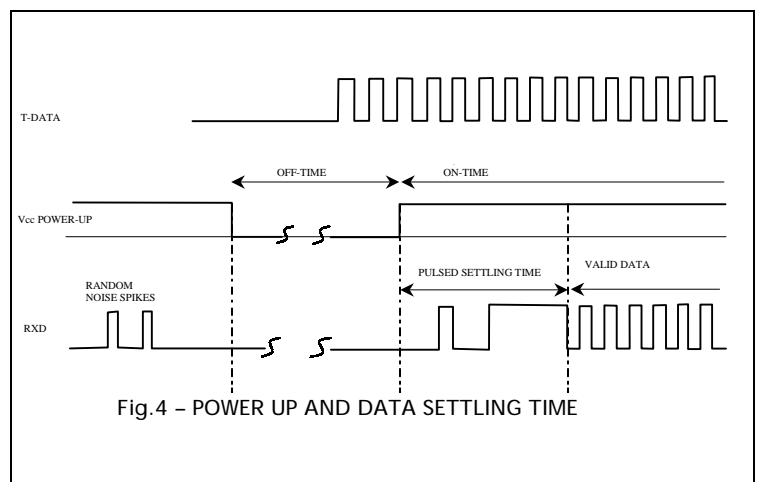


Fig.4 - POWER UP AND DATA SETTLING TIME

