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BR57 S

SRD | RX | XTAL | ISM 433,050 – 434,790 MHz

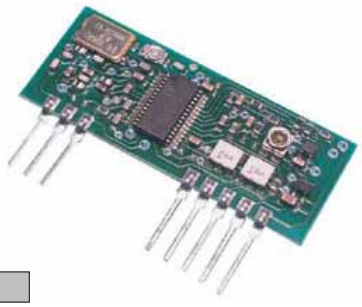

TABLE 1 - BR57 S VERSIONS		
BR57 S5-G1	433.175 MHz	5VDC
BR57 S5-G2 (1)	**433.425 MHz**	**5VDC**
BR57 S5-G3	433.675 MHz	5VDC
BR57 S5-G4 (1)	**433.925 MHz**	**5VDC**
BR57 S5-G5	434.175 MHz	5VDC
BR57 S5-G6 (1)	**434.425 MHz**	**5VDC**
BR57 S5-G7	434.675 MHz	5VDC

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

- XTAL CONTROLLED .
- SUPERETHERODYNE.
- OOK AND GASK MODULATION.
- -106 dBm SENSITIVITY.
- HIGH SELECTIVITY (± 85 KHz).
- FAST DATA RATE (28.8 KB).

DESCRIPTION:

The BR57 S is designed around the INFINEON TDA5210 PLL, Xtal controlled single conversion superetherodyne receiver IC. The receiver utilizes an advanced ASK Gaussian shaped (GASK) modulation for better rejection of multipath propagation signal distortion. The BR57 S is properly designed to work with the matching transmitter BT57 S up to a max. data speed of 28.8 KB, but it can be also easily matched with BT17x, BT27A (to 2.4 KB) or BT17xS, BT27S (to 28.8 KB) "SAW" controlled transmitter modules. The BR57 S has two "LC" tuned filters in the front-end for best out of band signal rejection and a ceramic filter (MURATA SFECS 10.7) for a good adjacent channel selectivity. Additionally an "RSSI" (Received Signal Strength indicator) output is available on PIN 12. The BR57 S is implemented by a sophisticated adjustable level data "Squelch" system.

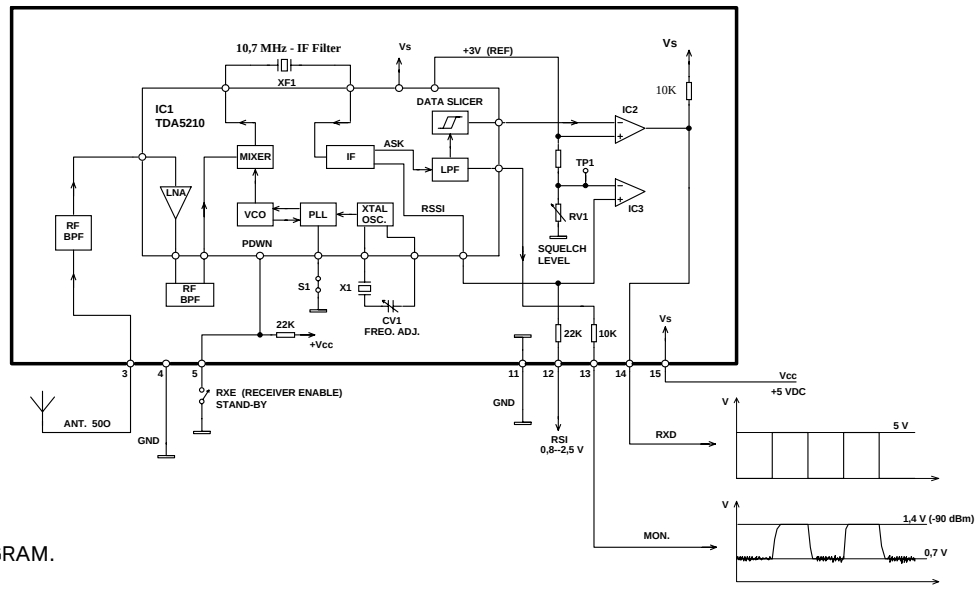

Fig.1 – BR57 S - BLOCK DIAGRAM.

BR 57 S - PERFORMANCE DATA

	Min	Typ	Max	Units	Notes
▪ **FREQUENCY**	433.050		434.790	MHz	(1)
▪ **SENSITIVITY**	-102	-106		dBm	(2)
▪ **SELECTIVITY**		±75	±90	KHz	
▪ **FREQUENCY ACCURACY**		±15	±20	KHz	(3)
▪ **DYNAMIC RANGE**	80	90		dB	
▪ **SPURIOUS EMISSION**		-90	-70	dBm	
▪ **IMAGE REJECTION**		10		dB	
▪ **IMPEDANCE**		50		Ω	
▪ **DATA RATE**	50		28800	baud	(4)
▪ **DATA MARK/SPACE**	20		80	%	(5)
▪ **DATA SETTLING TIME**		5	7	ms	(6)
▪ **DATA SQUELCH THRESHOLD**	-110	-108	-80	dBm	
▪ **OPERATING SUPPLY VOLTAGE**	4,5	5	5,5	V	
▪ **SUPPLY CURRENT**		6	7	mA	
▪ **OPERATING TEMPERATURE**	-20		+60	°C	

NOTE:

(1) CHANNEL SEPARATION = 250 KHz.
(2) 9,6 KB - BER 1 %.
(3) OVER OPERATING TEMPERATURE RANGE.
(4) 50/50 MARK/SPACE DATA PATTERN (25-14.400 Hz).
(5) DATA PULSE TIME Min.= 50µs Max. = 25 ms.
(6) TIME FROM "RE" (PIN 5 = RX ENABLE) TO VALID DATA.

PIN DESCRIPTION

PIN 3	ANT	RF Input
PIN 4	GND	RF Ground
PIN 5	RXE	Rx Enable
PIN 11	GND	Ground
PIN 12	RSI	Rec. Sign. Strength
PIN 13	MON	Analogue Output
PIN 14	RXD	Data Output
PIN 15	VCC	Dc Supply

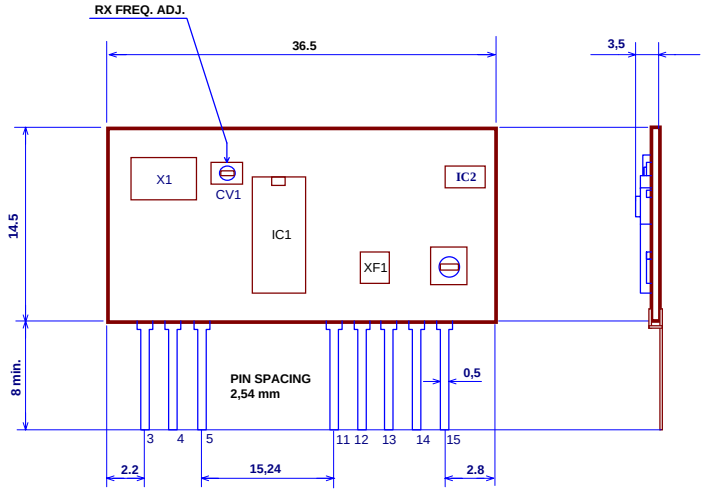

Fig.2 – BR57 S - PHYSICAL DIMENSIONS.

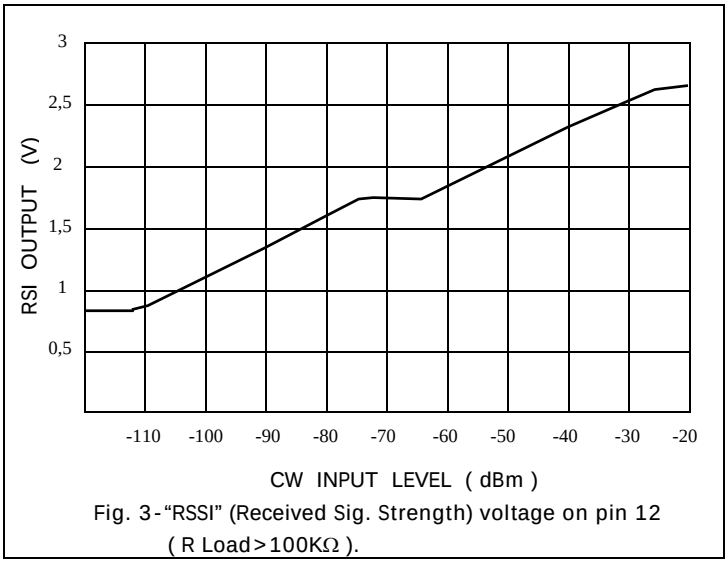

Fig. 3-"RSSI" (Received Sig. Strength) voltage on pin 12 (R Load>100KΩ).

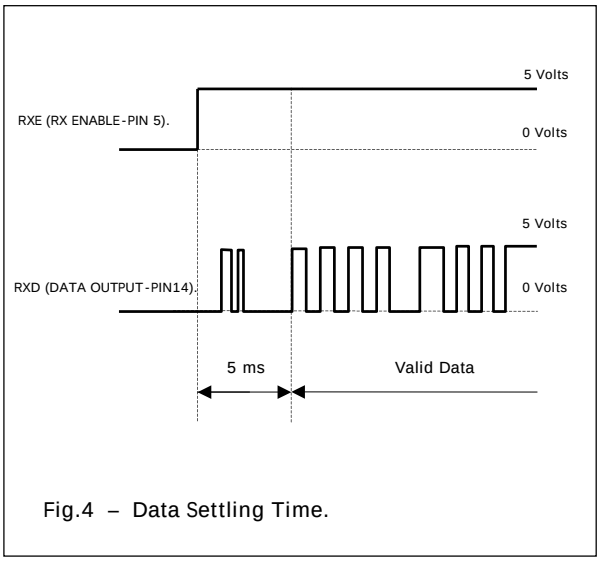

Fig.4 – Data Settling Time.

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