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BT57 S

SRD | TX | XTAL | ISM 433.050 – 434.790 MHz

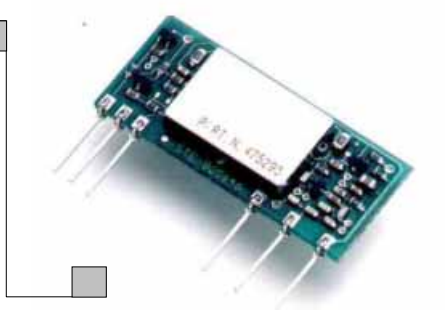

TABLE 1 - BT57 S VERSIONS

BT57 S5-G1	433,175 MHz	5VDC	20 mW
BT57 S5-G2 (1)	**433,425 MHz**	**5VDC**	**20 mW**
BT57 S5-G3	433,675 MHz	5VDC	20 mW
BT57 S5-G4 (1)	**433,925 MHz**	**5VDC**	**20 mW**
BT57 S5-G5	434,175 MHz	5VDC	20 mW
BT57 S5-G6 (1)	**434,425 MHz**	**5VDC**	**20 mW**
BT57 S5-G7	434,675 MHz	5VDC	20 mW
BT57 S3-G1	433,175 MHz	3VDC	15 mW
BT57 S3-G2	433,425 MHz	3VDC	15 mW
BT57 S3-G3	433,675 MHz	3VDC	15 mW
BT57 S3-G4	433,925 MHz	3VDC	15 mW
BT57 S3-G5	434,175 MHz	3VDC	15 mW
BT57 S3-G6	434,425 MHz	3VDC	15 mW
BT57 S3-G7	434,675 MHz	3VDC	15 mW

NOTE (1): STANDARD VERSIONS WITH EX STOCK AVAILABILITY.

PLEASE CONTACT THE FACTORY FOR SAMPLES AND AVAILABILITY OF NON STANDARD VERSIONS.

- XTAL CONTROLLED.
- HIGH POWER (+13 dBm).
- GASK MODULATION.
- FAST DATA RATE (28,8 KB).

DESCRIPTION:

The BT57 S module is designed around the INFINEON TDA5100 PLL, Xtal controlled transmitter IC. The module employs an advanced ASK Gaussian shaped (GASK) modulation for maximum rejection, on the receiver side, of multipath propagation signal distortion. Together with the precision crystal controlled synthesized architecture, the BT57 S has a 20mW RF output power (15 mW for the 3V version). A high power output allows to employ poor efficiency antennas (loop, helical or a trace on a PCB) to remain under legal 10 mW ERP.

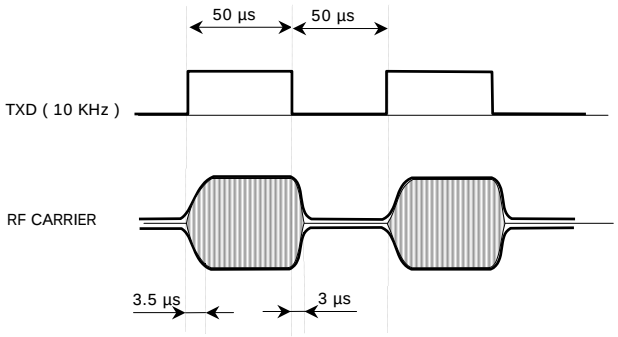

Fig.1 – GASK MODULATION (BAUD RATE 20 KB).

BT57 S - PERFORMANCE DATA

		Min	Typ	Max	Units	Notes
▪ FREQUENCY		433.050		434.790	MHz	(1)
▪ RF POWER	BT57 S5 BT57 S3	15 10	20 15		mW mW	(2) (2)
▪ IMPEDANCE			50		Ω	
▪ FREQUENCY ACCURACY			±15	±20	KHz	(3)
▪ II HARMONIC			-70	-60	dBc	
▪ SPURIOUS EMISSION			-55	-50	dBc	
▪ DATA RATE				28.8	KB	(4)
▪ POWER UP TIME				2	ms	
▪ SUPPLY VOLTAGE	BT57 S5 BT57 S3	4.5 2.75	5 3	5.5 3.5	V V	
▪ SUPPLY CURRENT- MEAN			12		mA	(4)
▪ SUPPLY CURRENT - CW			18	20	mA	
▪ OPERATING TEMPERATURE		-20		+60	°C	

NOTE :
(1) CHANNEL SEPARATION = 250 KHz.
(2) MAX. LEGAL ERP = 10 mW – ANTENNA SYSTEM WITH A RADIATING EFFICIENCY OF 50% OR LESS MUST BE EMPLOYED.
(3) OVER OPERATING TEMPERATURE RANGE.
(4) 50 / 50 MARK / SPACE DATA PATTERN.

PIN DESCRIPTION		
PIN 2	TXD	DATA INPUT
PIN 3	N.U.	
PIN 4	GND	GROUND
PIN 11	GND	RF GROUND
PIN 13	ANT	RF OUTPUT
PIN 15	VCC	DC SUPPLY

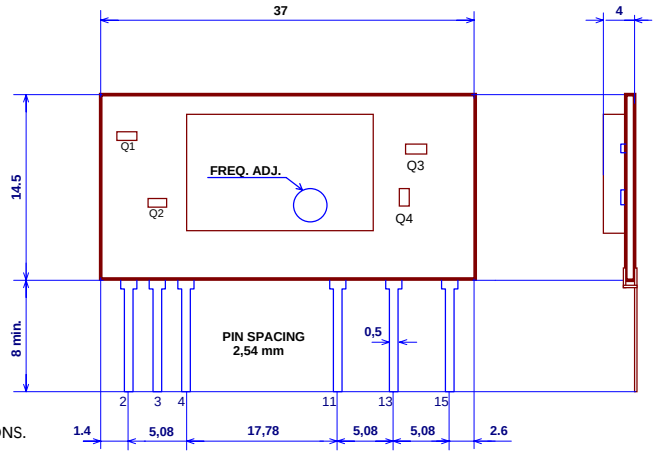

Fig.2 – BT 57 S PHYSICAL DIMENSIONS.

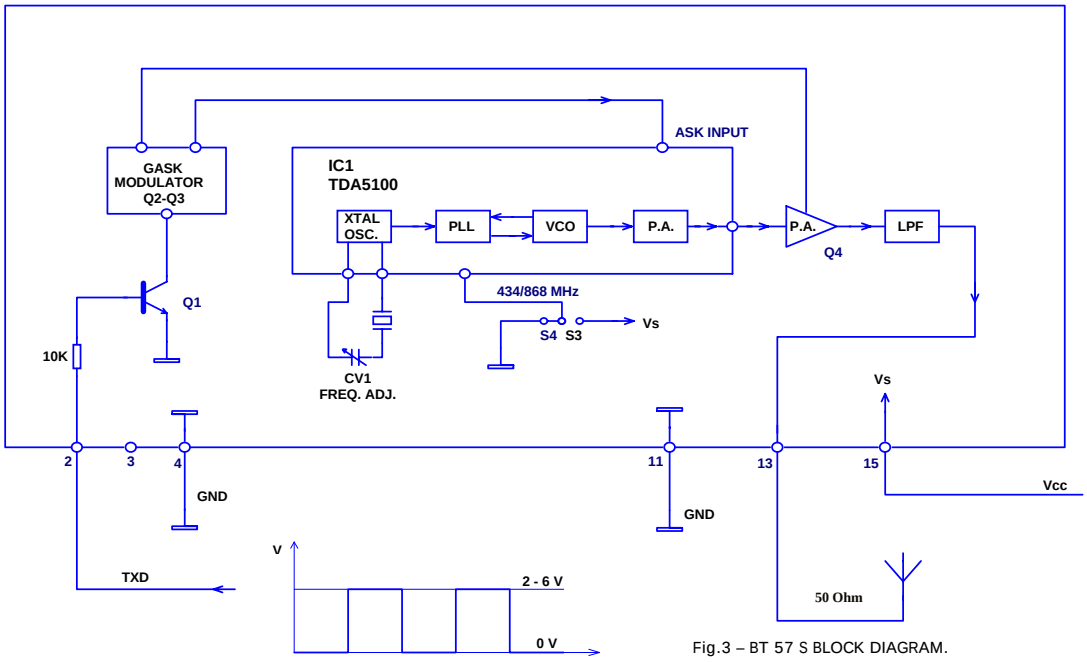

Fig.3 – BT 57 S BLOCK DIAGRAM.

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