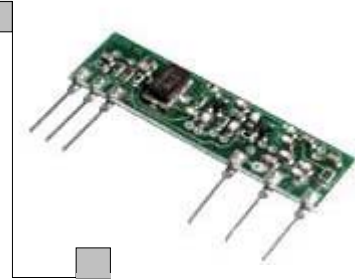


BT28	
SRD	TX ISM 868 – 870 MHz

TABLE 1 - BT28 VERSIONS

BT28A5-M2 (1)	868.350 MHz	5VDC	20 mW	OOK	2.4 KB
BT28A5-M5	868.950 MHz	5VDC	20 mW	OOK	2.4 KB
BT28S5-M2 (1)	868.350 MHz	5VDC	20 mW	GASK	38.4
BT28S5-M5	868.950 MHz	5VDC	20 mW	GASK	38.4
BT28A3-M2	868.350 MHz	3VDC	12 mW	OOK	2.4 KB
BT28A3-M5	868.950 MHz	3VDC	12 mW	OOK	2.4 KB
BT28S3-M2	868.350 MHz	3VDC	12 mW	GASK	38.4
BT28S3-M5	868.950 MHz	3VDC	12 mW	GASK	38.4
NOTE (1) :	STANDARD VERSIONS WITH EX STOCK AVAILABILITY. PLEASE CONTACT THE FACTORY FOR SAMPLES AND AVAILABILITY OF NON STANDARD VERSIONS.				

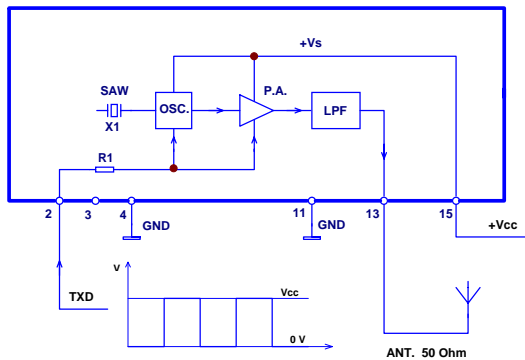


- SAW RESONATOR CONTROLLED
- HIGH POWER (15 mW)
- OOK AND GASK MODULATION
- FAST DATA RATE (38.4 KB "S" model)

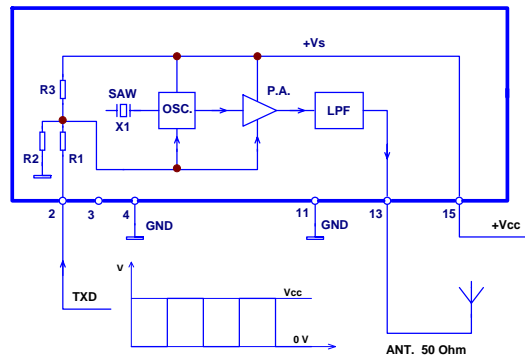
DESCRIPTION:

The BT28 is a two stage "SAW" controlled data transmitter module operating on the 868-870 MHz ISM bands. The module has a high (15mW) output RF power to allow the employ of poor efficiency antennas (¼ wave whip, helical or a trace on a PCB). The BT28A version is OOK modulated whereas the BT28S employs an advanced ASK Gaussian shaped (GASK) modulation with a speed rate up to 38.4 KB.

BT28A OOK MODULATION

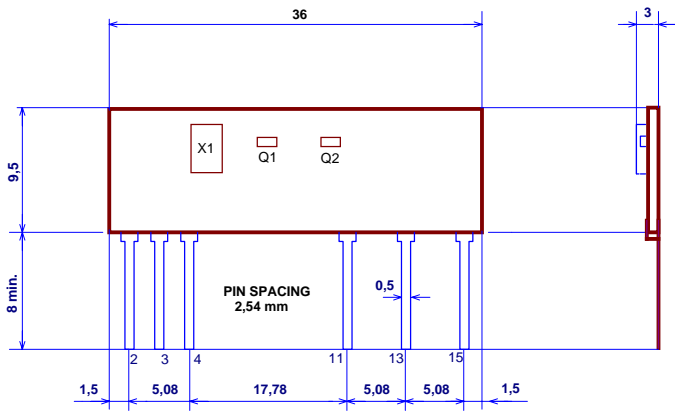


BT28S GASK MODULATION



BT28 - PERFORMANCE DATA

		Min	Typ	Max	Units	Notes
▪ FREQUENCY		868		870	MHz	
▪ RF POWER	BT28A5/BT28S5. BT28A3/BT28S3.	15 10	20 12		mW mW	
▪ IMPEDANCE			50		Ω	
▪ FREQUENCY ACCURACY			± 75	± 150	KHz	(1)
▪ HARMONIC EMISSIONS			-36	-30	dBm	
▪ DATA RATE:	BT28A BT28S		1.2	2.4 38.4	KB KB	(2) (2)
▪ SUPPLY VOLT.	BT28A5/BT28S5 BT28A3/BT28S3	4.5 2.75	5 3	5.5 3.5	V V	
▪ SUPPLY CURRENT			15	18	mA	(2)
▪ SUPPLY CURRENT - CW			26	30	mA	
▪ OPERATING TEMPERATURE		-20		+60	$^{\circ}\text{C}$	
NOTE:						
(1)		Over operating temperature range.				
(2)		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 28 PHYSICAL DIMENSIONS.

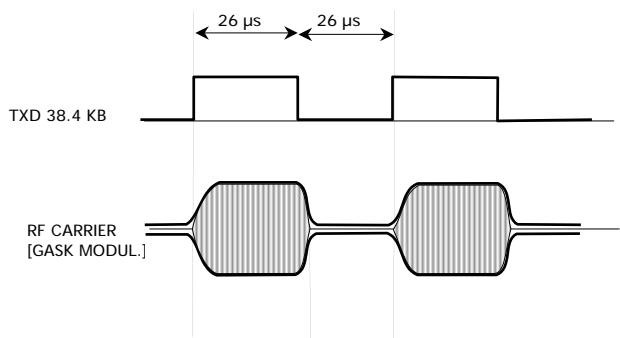


Fig.2 - BT28S- GASK (GAUSSIAN SHAPED AMPLITUDE SHIFT KEYING).

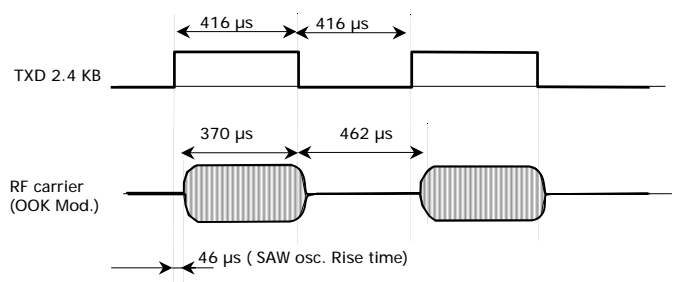


Fig.4 - BT28A - OOK (ON-OFF KEYING) MODULATION.

NOTE:

The BT28A is designed for transmitter system, where the DC supply is permanently connected to the module itself. When data (TXD) is zero the current falls below less than 1 μ A. Max. data speed is limited by the oscillation start-up time of the SAW resonator.

