



Pout mW

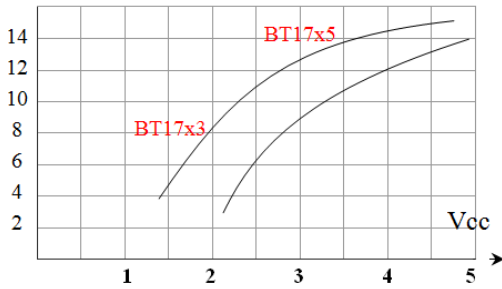


Fig. 1: OOK MODULATION (DATA RATE to 2.4

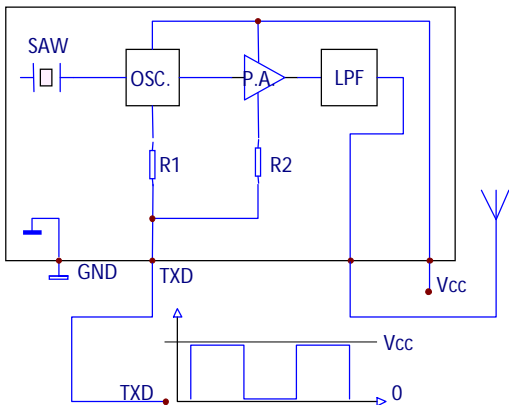
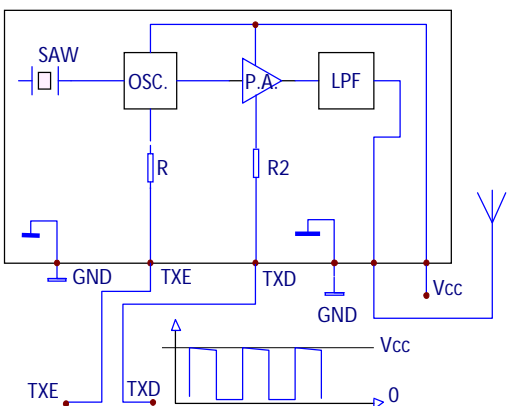


Fig. 2: GASK MODULATION (DATA RATE to 38.4 KB)



434 Mhz	BT17 – SRD DATA TX MODULE		
		OOK (2.4 KB)	ASK (38.4 KB)
SIL	3 VDC	BT17 A3 S	BT17 S3 S
	5 VDC	BT17 A5 S	BT17 S5 S
	9-12 VDC	BT17 A9 S	----
PIN	3 VDC	BT17 A3 P	BT17 S3 P
	5 VDC	BT17 A5 P	BT17 S5 P
	9-12 VDC	BT17 A9 P	----
SMT	3 VDC	BT17 A3 T	BT17 S3 T
	5 VDC	BT17 A5 T	BT17 S5 T
	9-12 VDC	BT17 A9 T	----

BT18 - RF Channel Versions	
BT17 xx x G2	433,425 MHz
BT17 xx x G4	433,925 MHz
BT18 xx x G6	434,425 MHz

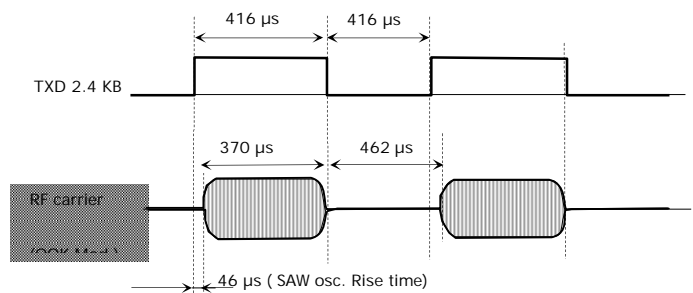


Fig.1b – BT17A - OOK (ON-OFF KEYING)

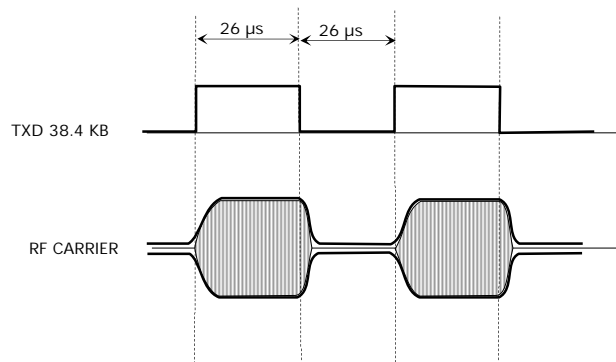
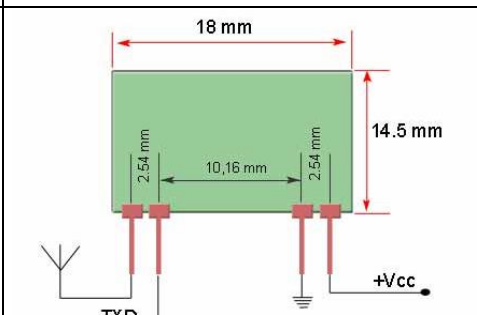
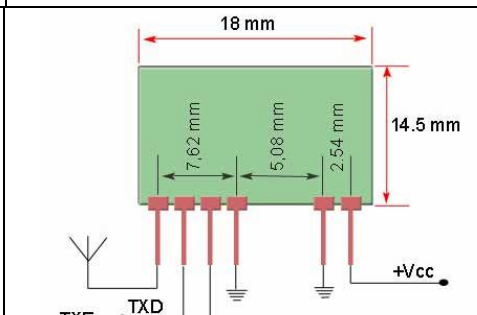
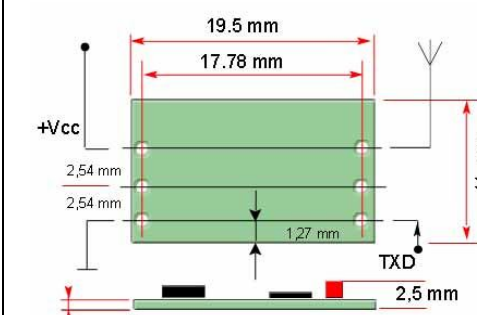
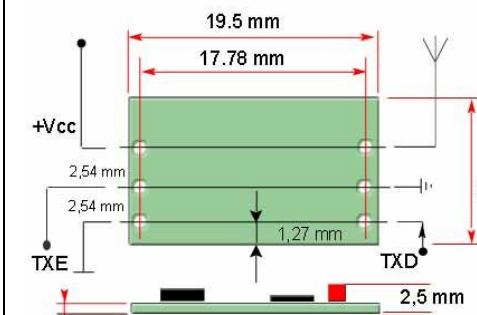
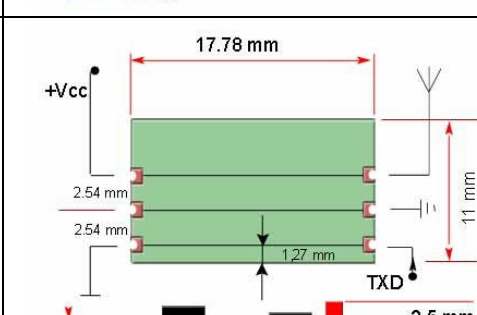
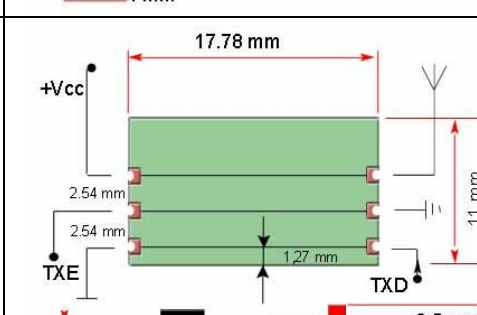


Fig.2b – BT17S- GASK (GAUSSIAN SHAPED)

NOTE: The BT17A 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 1µA. Max. data speed is limited by the oscillation start-up time of the SAW resonator.

BT17 - PERFORMANCE DATA						
		Min	Typ	Max	Units	Notes
▪ FREQUENCY		433.050		434.790	MHz	
▪ RF POWER	BT17A3/BT17S3	12	14		mW	(1)
	BT17A5/BT17S5	14	16		mW	(1)
	BT17A9	15	20		mW	(1)
▪ IMPEDANCE			50		Ω	
▪ FREQUENCY ACCURACY			± 50	± 100	KHz	(2)
▪ HARMONIC EMISSIONS			-36	-30	dBm	
▪ DATA RATE:	BT17A		1.2	2.4	KB	(3)
	BT17S			38.4	KB	(3)
▪ SUPPLY VOLT.	BT17A3/BT17S3	2.2	3	5	V	
	BT17A5/BT17S5	4	5	6	V	
	BT17A9	6	9	12	V	
▪ SUPPLY CURRENT			10	12	mA	(2)
▪ SUPPLY CURRENT - CW			16	22	mA	
▪ OPERATING TEMPERATURE		-20		+60	$^{\circ}\text{C}$	
NOTE : (1) Max. legal ERP = 10mW – antenna system with a radiating efficiency of 70% or less must be employed. (2) Over operating temperature range. (3) 50 / 50 MARK / SPACE DATA PATTERN.						

VERSIONS	OOK MODULATION DATA RATE to 2.4 KB	GASK MODULATION DATA RATE to 38.4 KB
SIL VERSION	 <p>Dimensions: 18 mm (width), 14.5 mm (height). Pin spacing: 2.54 mm. TXD pin offset: 10.16 mm.</p>	 <p>Dimensions: 18 mm (width), 14.5 mm (height). Pin spacing: 2.54 mm. TXE pin offset: 7.62 mm, TXD pin offset: 5.08 mm.</p>
PIN VERSION	 <p>Dimensions: 19.5 mm (width), 17.78 mm (width), 11 mm (height), 2.5 mm (length), 1 mm (thickness). Pin spacing: 2.54 mm. TXD pin offset: 1.27 mm.</p>	 <p>Dimensions: 19.5 mm (width), 17.78 mm (width), 11 mm (height), 2.5 mm (length), 1 mm (thickness). Pin spacing: 2.54 mm. TXE pin offset: 1.27 mm, TXD pin offset: 1.27 mm.</p>
SMT VERSION	 <p>Dimensions: 17.78 mm (width), 11 mm (height), 2.5 mm (length), 1 mm (thickness). Pin spacing: 2.54 mm. TXD pin offset: 1.27 mm.</p>	 <p>Dimensions: 17.78 mm (width), 11 mm (height), 2.5 mm (length), 1 mm (thickness). Pin spacing: 2.54 mm. TXE pin offset: 1.27 mm, TXD pin offset: 1.27 mm.</p>

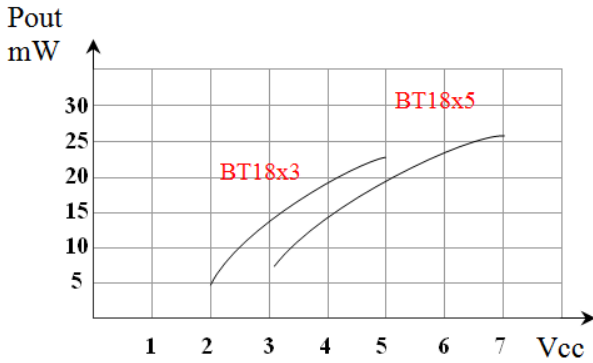


Fig. 1: OOK MODULATION (DATA RATE to 2.4

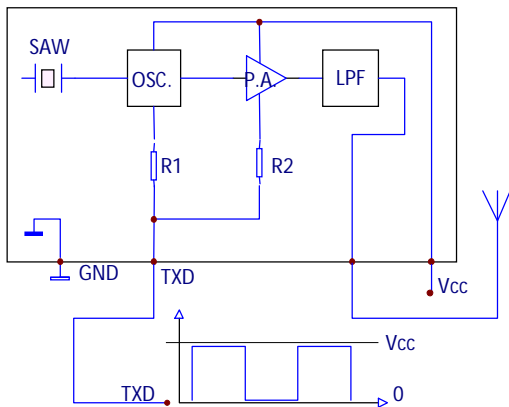
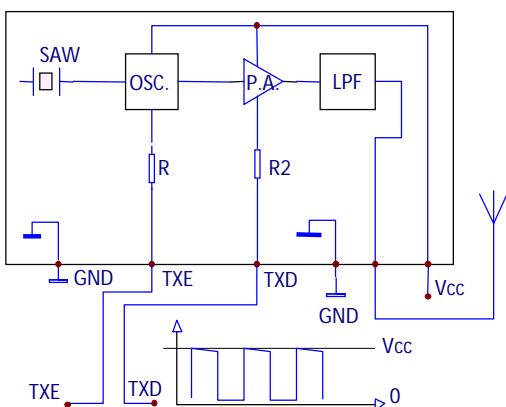


Fig. 2: GASK MODULATION (DATA RATE to 38.4 KB)



868 Mhz	BT18 – SRD DATA TX MODULE		
		OOK (2.4 KB)	ASK (38.4 KB)
SIL	3 VDC	BT18 A3 S	BT18 S3 S
	5 VDC	BT18 A5 S	BT18 S5 S
	9-12 VDC	BT18 A9 S	-----
PIN	3 VDC	BT18 A3 P	BT18 S3 P
	5 VDC	BT18 A5 P	BT18 S5 P
	9-12 VDC	BT18 A9 P	-----
SMT	3 VDC	BT18 A3 T	BT18 S3 T
	5 VDC	BT18 A5 T	BT18 S5 T
	9-12 VDC	BT18 A3 T	-----

BT18 - RF Channel Versions	
BT18 xx x M2	868,350 MHz
BT18 xx x M5	868,950 MHz
BT18 xx x M9	869,850 MHz

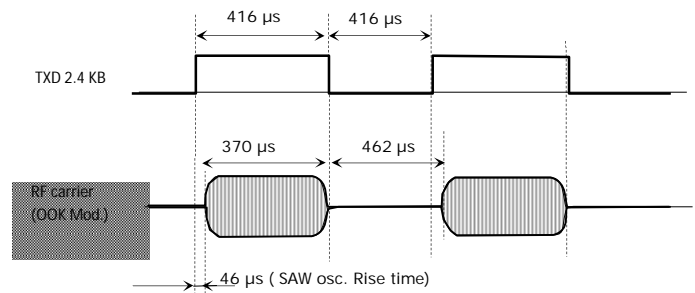


Fig.1b – BT18A - OOK (ON-OFF KEYING)

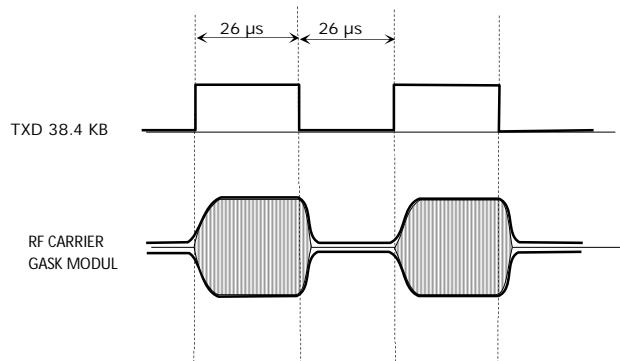
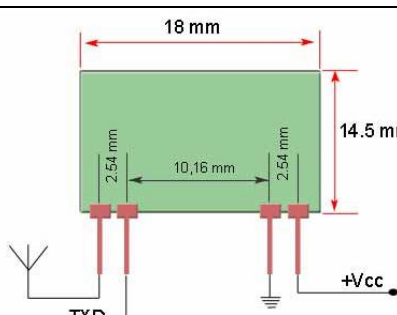
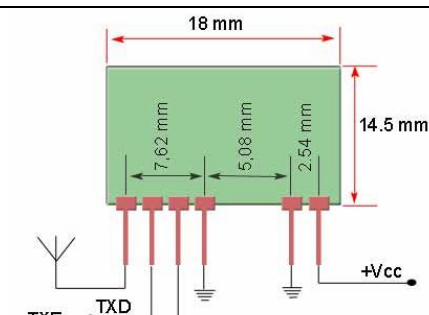
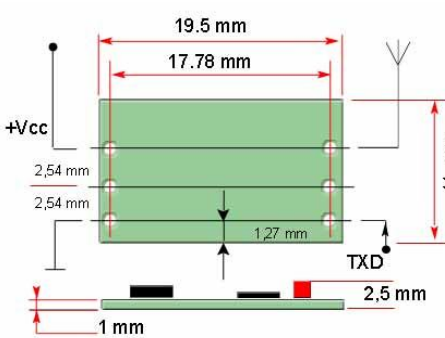
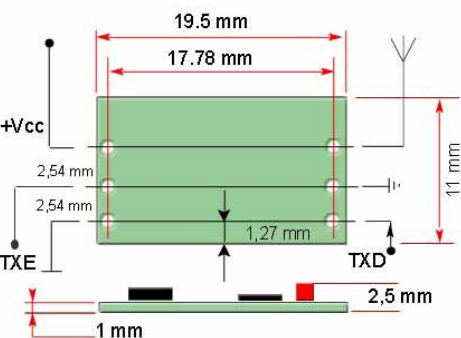
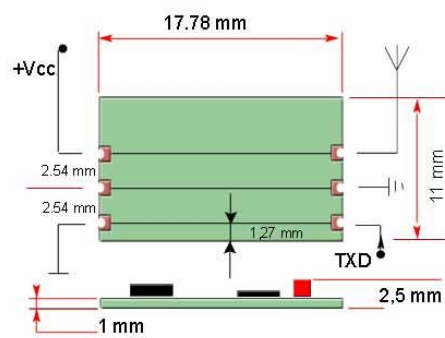
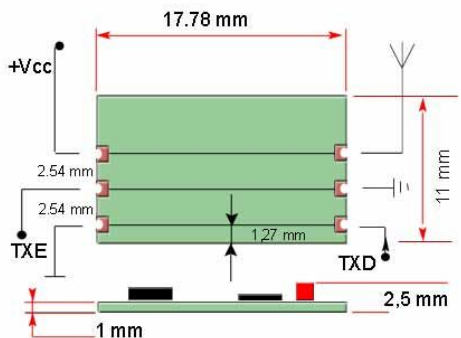
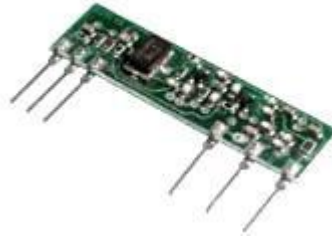


Fig.2b – BT18S- GASK (GAUSSIAN SHAPED AMPLITUDE SHIFT

NOTE: The BT18A 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 1µA. Max. data speed is limited by the oscillation start-up time of the SAW resonator.

BT18 - PERFORMANCE DATA							
		Min	Typ	Max	Units	Notes	
▪	FREQUENCY	868		870	MHz		
▪	RF POWER	BT18A3/BT18S3	9	12.5	mW		
		BT18A5/BT28S5	15	20	mW		
		BT18A9	20	25	mW		
▪	IMPEDANCE		50		Ω		
▪	FREQUENCY ACCURACY		± 75	± 150	KHz	(1)	
▪	HARMONIC EMISSIONS		-36	-30	dBm		
▪	DATA RATE:	BT18A		1.2	2.4	KB	(2)
		BT18S			38.4	KB	(2)
▪	SUPPLY VOLT.	BT18A3/BT18S3	2.2	3	5	V	
		BT18A5/BT18S5	4	5	6	V	
		BT18A9	6	9	12	V	
▪	SUPPLY CURRENT		12	14	mA	(2)	
▪	SUPPLY CURRENT - CW		20	30	mA		
▪	OPERATING TEMPERATURE	-20		+60	$^{\circ}\text{C}$		
NOTE :							
	(1)	Over operating temperature range.					
	(2)	50 / 50 MARK / SPACE DATA PATTERN.					

VERSIONS	OOK MODULATION DATA RATE to 2.4 KB	GASK MODULATION DATA RATE to 38.4 KB
SIL VERSION		
PIN VERSION		
SMT VERSION		



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

TABLE 1 - BT27 VERSIONS

BT27A5-G2	433,425 MHz 5VDC	15 mW	OOK	2.4 KB
BT27A5-G4 (1)	433,925 MHz 5VDC	15 mW	OOK	2.4 KB
BT27A5-G6	434,425 MHz 5VDC	15 mW	OOK	2.4 KB
BT27S5-G2	433,425 MHz 5VDC	15 mW	GASK	38.4 KB
BT27S5-G4 (1)	433,925 MHz 5VDC	15 mW	GASK	38.4 KB
BT27S5-G6	434,425 MHz 5VDC	15 mW	GASK	38.4 KB
BT27A3-G2	433,425 MHz 3VDC	12mW	OOK	2.4 KB
BT27A3-G4	433,925 MHz 3VDC	12 mW	OOK	2.4 KB
BT27A3-G6	434,425 MHz 3VDC	12 mW	OOK	2.4 KB
BT27S3-G2	433,425 MHz 3VDC	12 mW	GASK	38.4 KB
BT27S3-G4	433,925 MHz 3VDC	12 mW	GASK	38.4 KB
BT27S3-G6	434,425 MHz 3VDC	12 mW	GASK	38.4 KB

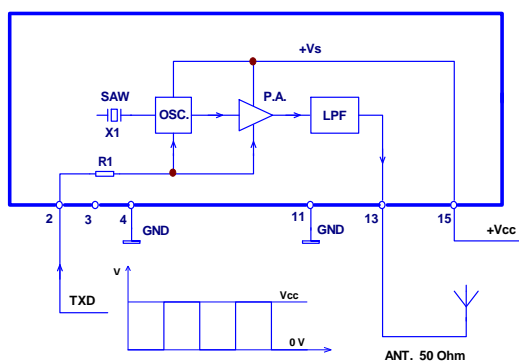
NOTE (1) STANDARD VERSIONS WITH EX STOCK AVAILABILITY. PLEASE CONTACT THE FACTORY FOR SAMPLES AND AVAILABILITY OF NON STANDARD VERSIONS.

DESCRIPTION:

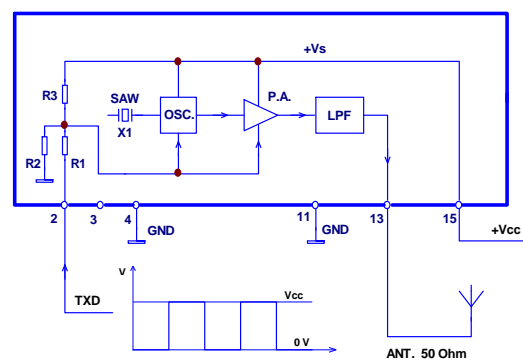
The BT27 is a two stage "SAW" controlled data transmitter module operating on the 433.05-434.79 MHz ISM band.

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) to remain under the legal 10mW ERP limit. The BT27A version is OOK modulated whereas the BT27S employs an advanced ASK Gaussian shaped (GASK) modulation with a speed rate up to 38.4 KB.

BT27A OOK MODULATION



BT27S GASK MODULATION



BT27 - PERFORMANCE DATA						
		Min	Typ	Max	Units	Notes
▪	FREQUENCY	433.050		434.790	MHz	
▪	RF POWER				mW	(1)
	BT27A5/BT27S5	12	15			
	BT27A3/BT27S3	10	12		mW	(1)
▪	IMPEDANCE		50		Ω	
▪	FREQUENCY ACCURACY		± 50	± 100	KHz	(2)
▪	HARMONIC EMISSIONS		-36	-30	dBm	
▪	DATA RATE:				KB	(3)
	BT27A		1.2	2.4		
	BT27S			38.4		
▪	SUPPLY VOLT.				V	
	BT27A5/BT27S5	4.5	5	5.5		
	BT27A3/BT27S3	2.75	3	3.5	V	
▪	SUPPLY CURRENT		12	14	mA	(3)
▪	SUPPLY CURRENT - CW		22	28	mA	
▪	OPERATING TEMPERATURE	-20		+60	$^{\circ}\text{C}$	

NOTE

(1) Max. legal ERP = 10 mW – antenna system with a radiating efficiency of 70% or less must be employed.

(2) Over operating temperature range.

(3) 50 / 50 MARK / SPACE DATA PATTERN.

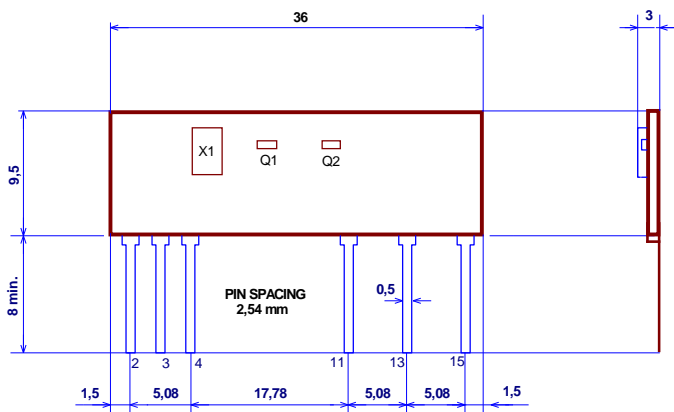


Fig.2 – BT27 PHYSICAL DIMENSIONS.

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

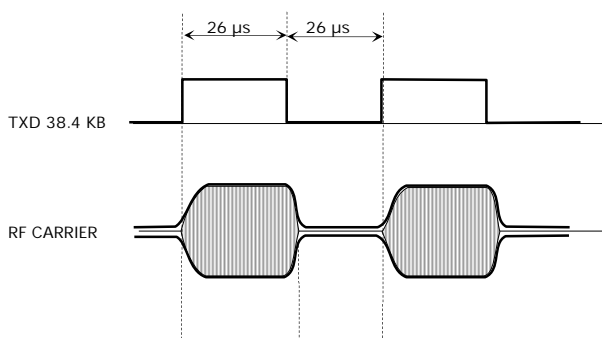


Fig.3 – BT27S- GASK (GAUSSIAN SHAPED AMPLITUDE SHIFT KEYING).

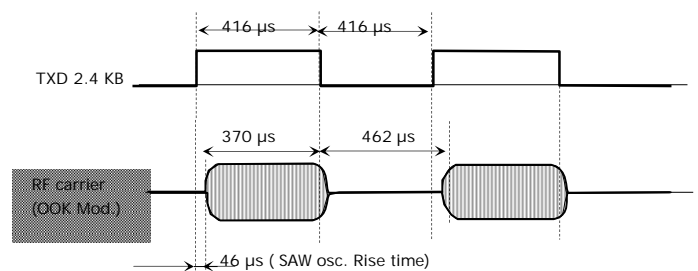
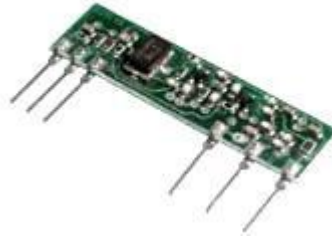


Fig.4 – BT27A - OOK (ON-OFF KEYING) MODULATION.

NOTE:

The BT27A 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 $1\mu\text{A}$.

Max. data speed is limited by the oscillation start-up time of the SAW resonator.



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

TABLE 1 - BT28 VERSIONS

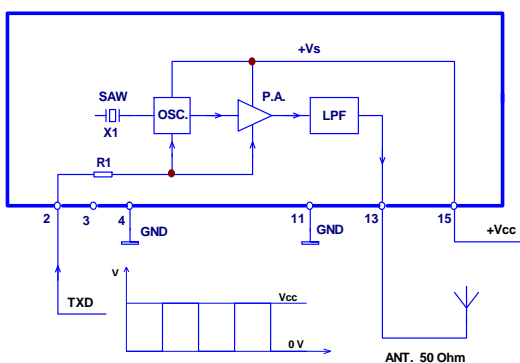
BT28A5-M2 (1)	868.350 MHz	5VDC	20 mW	OOK	2.4 KB
BT28A5-M5	868.950 MHz	5VDC	20 mW	OOK	2.4 KB
BT28S5-M2 (1)	868.350 MHz	5VDC	20 mW	GASK	38.4
BT28S5-M5	868.950 MHz	5VDC	20 mW	GASK	38.4
BT28A3-M2	868.350 MHz	3VDC	12 mW	OOK	2.4 KB
BT28A3-M5	868.950 MHz	3VDC	12 mW	OOK	2.4 KB
BT28S3-M2	868.350 MHz	3VDC	12 mW	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.				

DESCRIPTION:

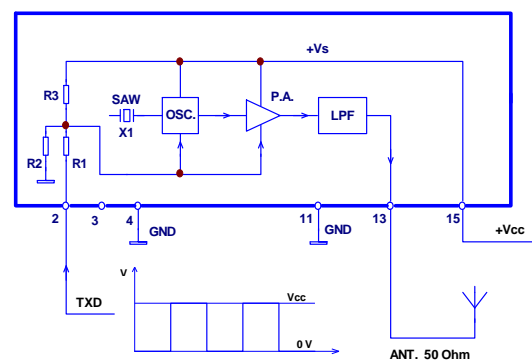
The BT28 is a two stage "SAW" controlled data transmitter module operating on the 868-870 MHz ISM bands.

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



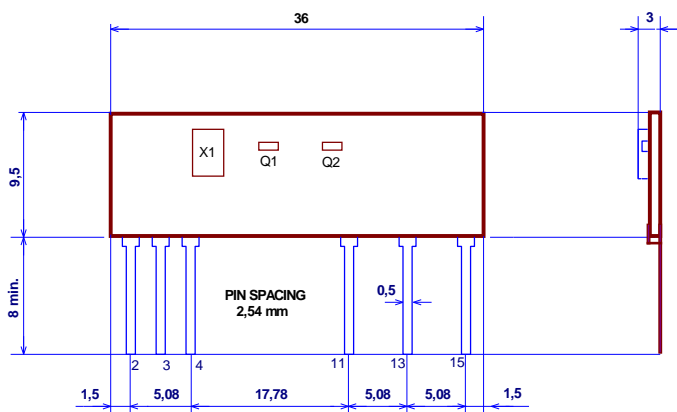
BT28S GASK MODULATION



BT28 - PERFORMANCE DATA						
		Min	Typ	Max	Units	Notes
▪ FREQUENCY		868		870	MHz	
▪ RF POWER	BT28A5/BT28S5.	15	20		mW	
	BT28A3/BT28S3.	10	12		mW	
▪ IMPEDANCE			50		Ω	
▪ FREQUENCY ACCURACY			± 75	± 150	KHz	(1)
▪ HARMONIC EMISSIONS			-36	-30	dBm	
▪ DATA RATE:	BT28A		1.2	2.4	KB	(2)
	BT28S			38.4	KB	(2)
▪ SUPPLY VOLT.	BT28A5/BT28S5	4.5	5	5.5	V	
	BT28A3/BT28S3	2.75	3	3.5	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.

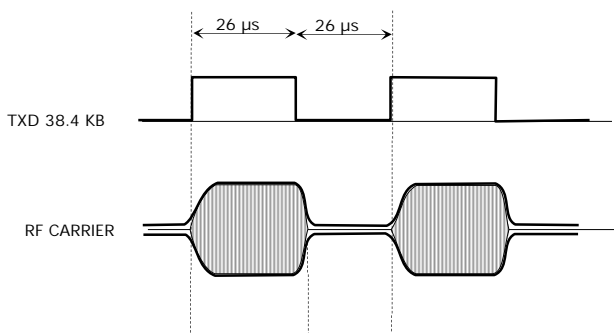


Fig. 2 - BT28S- GASK (GAUSSIAN SHAPED AMPLITUDE SHIFT KEYING).

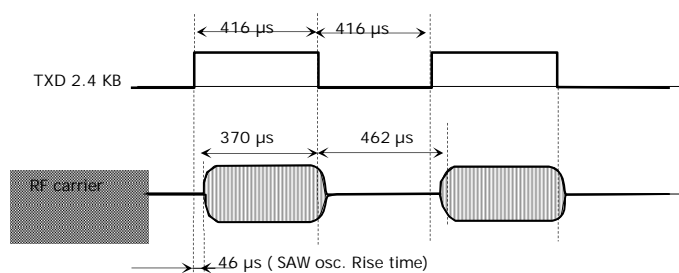


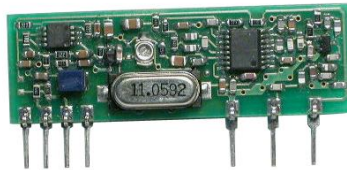
Fig. 4 - BT28A - OOK (ON-OFF KEYING) MODULATION.

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.



- XTAL CONTROLLED ON 35 CHANNELS.
- FM MODULATION.
- HIGH POWER (+14 dB).
- FAST DATA RATE (19.2 KB).

DESCRIPTION:

The New S version, 3rd Series, Xtal controlled miniaturized 433 MHz SRD Tx.

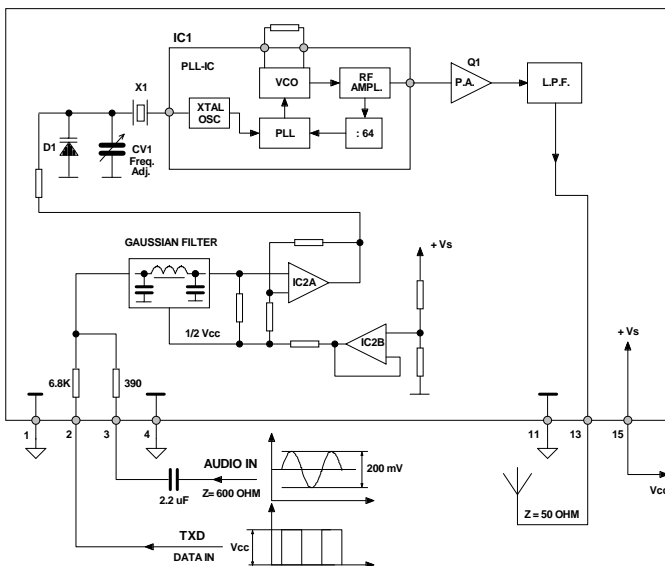
The BT37S module is a complete transmitter module, FM or FSK modulated and crystal controlled on up to 35 different frequency channels in the 433 MHz band.

The carrier frequency is generated by a fixed division, low noise PLL integrated circuit (IC1). A Power Amplifier (P.A.) stage brings the RF output to the required power level.

FSK Digital (TXD Input) of FM Analog (AIN Input) modulation to the D1 Varicap Diode (X1 Crystal Reference Modulation). A 5 poles Low Pass Filter attenuates the harmonic emissions under the EN 300-220 limits. The module needs a single 5VDC supply (BT37S5) or 3VDC supply (BR37S3).

Table 1 – BT37S versions

Table 1 – BT37S versions			
BT37S3-F4	433.225 MHz	3 VDC	RF output power = +12 dBm (50Ω) Max ERP:
BT37S3-F18	433.925 MHz	3 VDC	a) 10 mW (+10 dBm). Band e – Duty-cycle <10%.
BT37S3-F23	434.175 MHz	3 VDC	b) 1 mW (+0 dBm). Band e1 – Duty-cycle <100%.
BT37S3-F4	433.225 MHz	5 VDC	RF output power = +13 dBm (50Ω) Max ERP:
BT37S3-F18	433.925 MHz	5 VDC	a) 10 mW (+10 dBm). Band e – Duty-cycle <10%.
BT37S3-F23	434.175 MHz	5 VDC	b) 1 mW (+0 dBm). Band e1 – Duty-cycle <100%.



Information about 50 KHz channel separation Band –Plan may be found in application note Anxx.

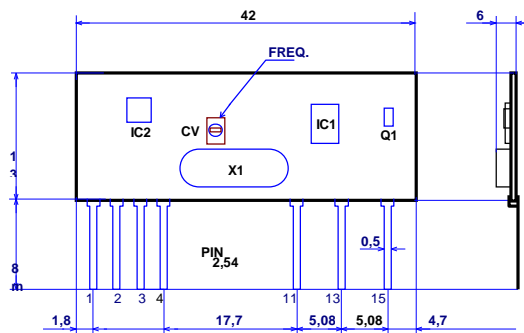
X1 Xtal specifications.

1. Holder: SX1 or HC45 (rear mount).
2. Mode: Fundamental – Parallel res.
3. Load cap: 15b pF.
4. Init. Precision: ±10 ppm.
5. Temp. stability: ±10 ppm.
6. Frequency: $F_x = F_{TX} / 64$.

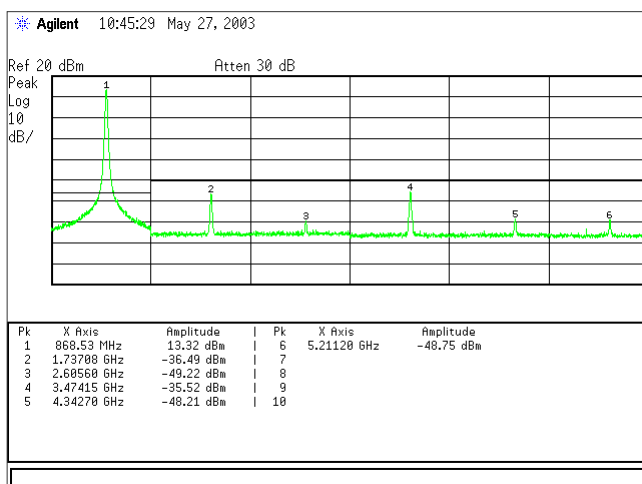
BT37S PERFORMANCE DATA

	Min	Typ	Max	Units	Notes
▪ FREQUENCY	433.05		434.79	MHz	(1)
▪ RF POWER BT37 S3 BT37 S5				mW	(2) (2)
▪ IMPEDANCE		50		Ω	
▪ FREQUENCY ACCURACY		± 3	± 5	KHz	(3)
▪ II HARMONIC		-50	-45	dBc	
▪ SPURIOUS EMISSION		-60	-55	dBc	
▪ DATA RATE			19.2	KB	
▪ POWER UP TIME			1	ms	
▪ SUPPLY VOLTAGE BT37 S3 BT37 S5	4.5 2.75	5 3	5.5 3.6	V V	
▪ SUPPLY CURRENT		28	32	mA	
▪ OPERATING TEMPERATURE	-20		+60	C°	

NO (1) CHANNEL SEPARATION = 50 KHz.
TE: (2) Max. legal Power = 10 mW ERP (SUB BAND F and G) – 5 mW ERP (SUB BAND K).
 (3) OVER OPERATING TEMPERATURE.



PIN DESCRIPTION		
PIN1	GND	Ground
PIN2	TXD	Data Input
PIN3	AIN	Audio input
PIN4	GND	Ground
PIN11	GND	Rf ground
PIN13	ANT	Rf Output
PIN15	VCC	Dc supply



DATA TRANSMISSION PROTOCOL:

The "Reference Frequency" modulation scheme allows for a flat response down to DC levels to avoid loss of balance in the transmitted signal even in presence of non symmetrical data patterns.

In data transmission (FSK modulation) nominal frequency deviation is obtained with a TXD signal level ranging from Zero to Vs (5V or V3).

Output RF carrier frequency, as adjusted by CV1, corresponds to F0 center channel frequency when TXD and AIN inputs are open state or when mean modulation signal level is VS/2.



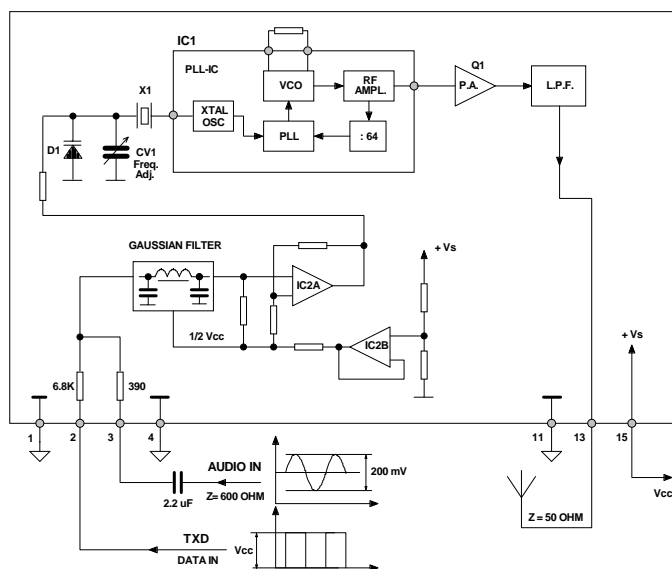
- XTAL CONTROLLED ON 35 CHANNELS.
- FM MODULATION.
- HIGH POWER (+14 dB).
- FAST DATA RATE (19.2 KB).

DESCRIPTION:

The BT38S module is a complete transmitter module, "FM" or "FSK" modulated and crystal controlled on up to 35 different frequency channels in the 868 - 870 MHz band. The carrier frequency is generated by a fixed division, low noise "PLL" integrated circuit (IC1). A Power Amplifier (P.A.) stage brings the RF output to the required power level. "FSK" Digital (TXD Input) or "FM" Analog (AIN Input) modulation to the D1 Varicap Diode (X1 Crystal Reference Modulation). A 5 poles Low Pass Filter attenuates the harmonic emissions under the EN 300-220 limits. The module needs a single 5VDC supply (Bt38S5) or 3VDC supply (BR38S3).

Table 1 – BT38S versions

Table 1 – BT38S versions			
BT38S3-F171	868,525 MHz	3 VDC	SUB-BAND f – 15 mW Duty-Cycle <1%
BT38S3-F195	868,725 MHz	3 VDC	SUB-BAND k – 15 mW Duty-Cycle = 100 %
BT38S5-F171	868,525 MHz	5 VDC	SUB-BAND f – 20 mW Duty-Cycle <1%
BT38S3-F195	868,725 MHz	5 VDC	SUB-BAND k – 20 mW Duty-Cycle = 100 %



Information about 50 KHz channel separation Band –Plan may be found in application note Anxx.

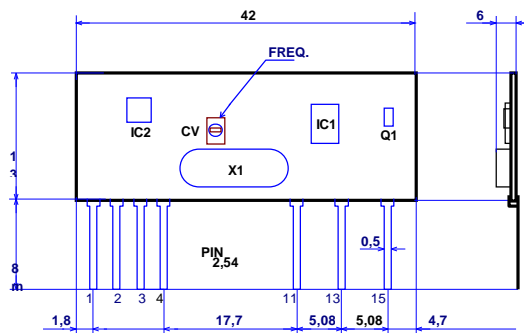
X1 Xtal specifications.

1. Holder: SX1 or HC45 (rear mount).
2. Mode: Fundamental – Parallel res.
3. Load cap: 15b pF.
4. Init. Precision: ±10 ppm.
5. Temp. stability: ±10 ppm.
6. Frequency: $F_x = F_{TX} / 64$.

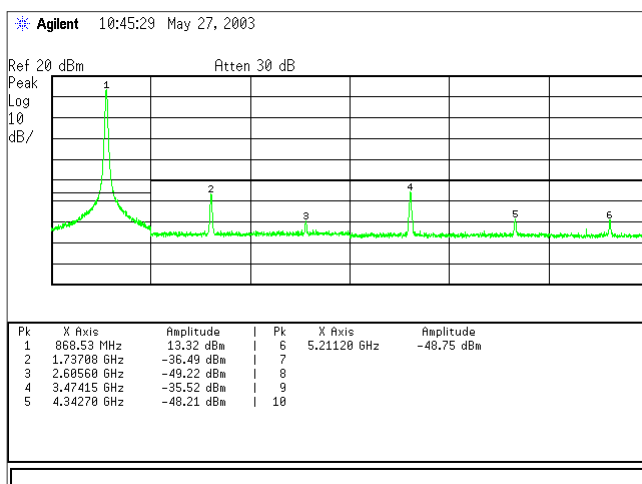
BT38S PERFORMANCE DATA

	Min	Typ	Max	Units	Notes
▪ FREQUENCY	868		870	MHz	(1)
▪ RF POWER BT37 S3 BT37 S5	15		20	mW	(2) (2)
▪ IMPEDANCE		50		Ω	
▪ FREQUENCY ACCURACY		± 20	± 10	KHz	(3)
▪ II HARMONIC		-50	-45	dBc	
▪ SPURIOUS EMISSION		-60	-55	dBc	
▪ DATA RATE			19.2	KB	
▪ POWER UP TIME			1	ms	
▪ SUPPLY VOLTAGE BT37 S3 BT37 S5	4.5 2.75	5 3	5.5 3.6	V V	
▪ SUPPLY CURRENT		28	32	mA	
▪ OPERATING TEMPERATURE	-20		+60	C°	

- NO** (1) CHANNEL SEPARATION = 50 KHz.
TE: (2) Max. legal Power = 25 mW ERP (SUB BAND F and G) – 5 mW ERP (SUB BAND K).
 (3) OVER OPERATING TEMPERATURE.



PIN DESCRIPTION		
PIN1	GND	Ground
PIN2	TXD	Data Input
PIN3	AIN	Audio input
PIN4	GND	Ground
PIN11	GND	Rf ground
PIN13	ANT	Rf Output
PIN15	VCC	Dc supply

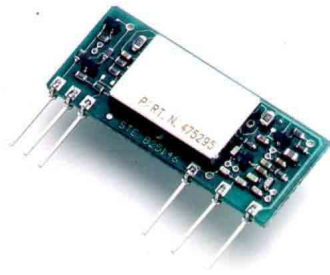


DATA TRANSMISSION PROTOCOL:

The "Reference Frequency" modulation scheme allows for a flat response down to DC levels to avoid loss of balance in the transmitted signal even in presence of non symmetrical data patterns.

In data transmission (FSK modulation) nominal frequency deviation is obtained with a TXD signal level ranging from Zero to Vs (5V or V3).

Output RF carrier frequency, as adjusted by CV1, corresponds to F0 center channel frequency when TXD and AIN inputs are open state or when mean modulation signal level is VS/2.



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

DESCRIPTION:

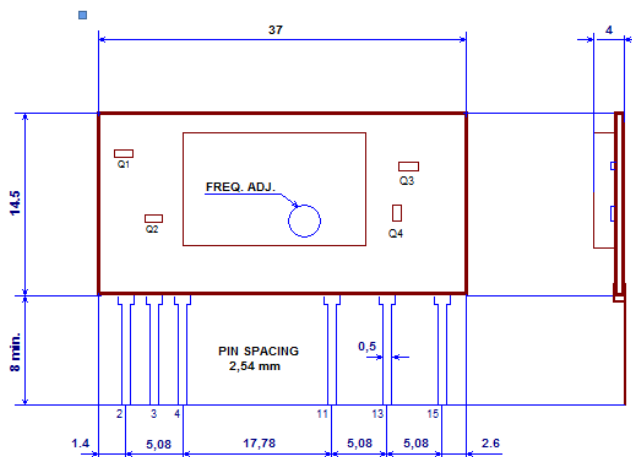
The BT57 F module is designed around the INFINEON TDA5100 PLL, Xtal controlled transmitter IC. The module employs FSK modulation. Together with the precision crystal controlled synthesized architecture, the BT57 F has a 20mW RF output power (15 mW for the 3V version). A high power output allows to employ poor efficiency antennas (loop, helical or a trace on a PCB) to remain under legal 10 mW ERP.

TABLE 1 - BT57 S VERSIONS

Model	Frequency (MHz)	Voltage (VDC)	Power (mW)
BT57 F5-G1	433,175	5VDC	20 mW
BT57 F5-G2	433,425	5VDC	20 mW
BT57 F5-G3	433,675	5VDC	20 mW
BT57 F5-G4	433,925	5VDC	20 mW
BT57 F5-G5	434,175	5VDC	20 mW
BT57 F5-G6	434,425	5VDC	20 mW
BT57 F5-G7	434,675	5VDC	20 mW
BT57 F3-G1	433,175	3VDC	15 mW
BT57 F3-G2	433,425	3VDC	15 mW
BT57 F3-G3	433,675	3VDC	15 mW
BT57 F3-G4	433,925	3VDC	15 mW
BT57 F3-G5	434,175	3VDC	15 mW
BT57 F3-G6	434,425	3VDC	15 mW
BT57 F3-G7	434,675	3VDC	15 mW
NOTE (1) :	PLEASE CONTACT THE FACTORY FOR SAMPLES AND AVAILABILITY OF NON STANDARD VERSIONS.		

PIN DESCRIPTION

PIN	Function
PIN2	TXD Data Input
PIN3	N.U
PIN4	GND Ground
PIN11	GND Rf ground
PIN13	ANT Rf Output
PIN15	VCC Dc supply

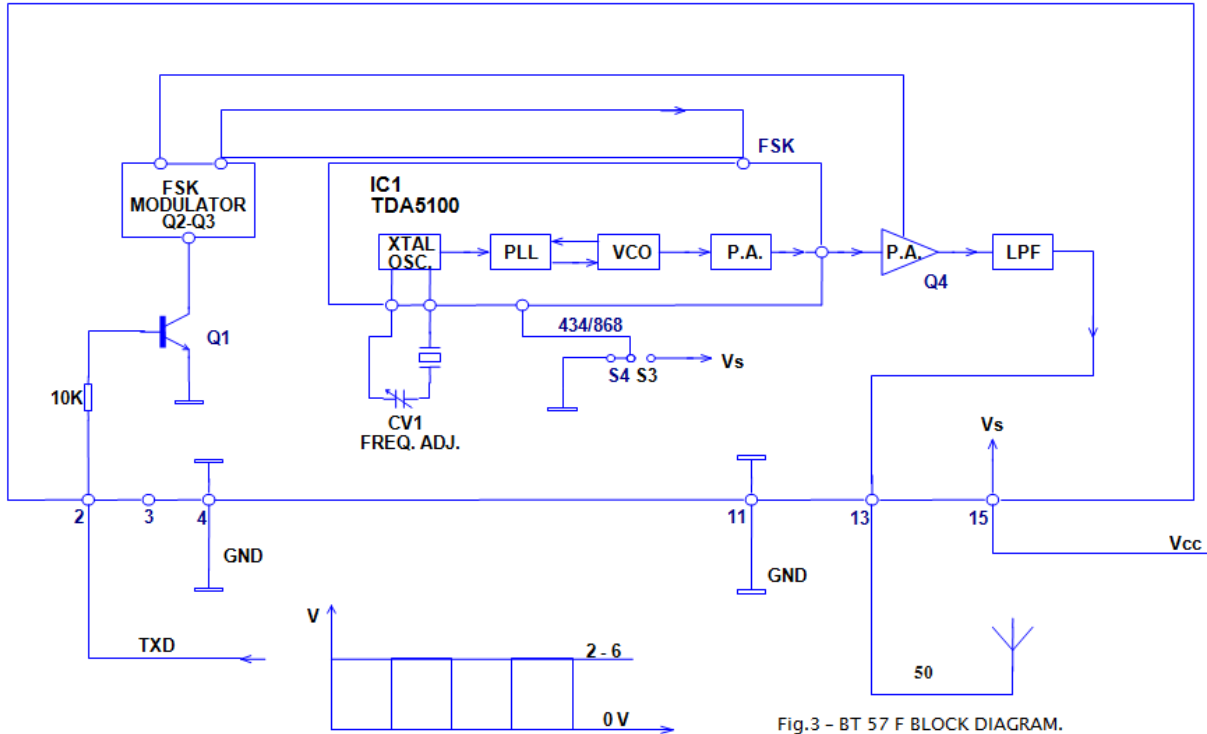


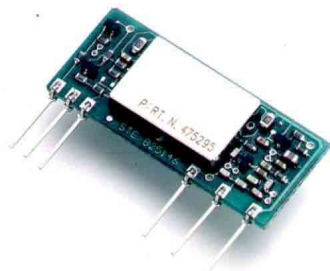
BT57 Mechanical Dimensions

BT57 F - PERFORMANCE DATA						
		Min	Typ	Max	Units	Notes
▪ FREQUENCY		433.050		434.790	MHz	(1)
▪ RF POWER	BT57 F5	15	20		mW	(2)
	BT57 F3	10	15		mW	(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 F5	5	5.5	V	
		BT57 F3	2.75	3.5	V	
▪ SUPPLY CURRENT- MEAN			12		mA	(4)
▪ SUPPLY CURRENT - CW			18	20	mA	
▪ OPERATING TEMPERATURE			-20	+60	$^{\circ}\text{C}$	

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.





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

DESCRIPTION:

The BT58 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 BT58 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.

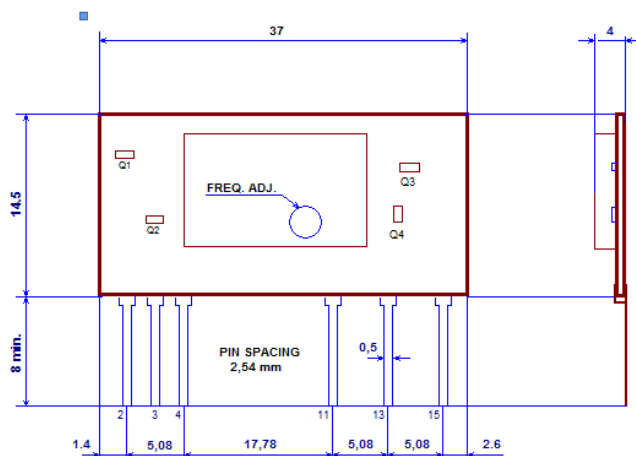
TABLE 1 - BT58 VERSIONS

Version	Frequency (MHz)	Voltage (VDC)	Power (mW)
BT58A5-M1	868,150	5	30
BT58A5-M2 (1)	868,350	5	30
BT58A5-M3	868,550	5	30
BT58A5-M4	868,750	5	30
BT58A5-M5 (1)	868,950	5	30
BT58A5-M6	869,150	5	30
BT58A5-M8	869,550	5	30
BT58A5-M9 a	869,850	5	30
BT58A3-M1	868,150	3	25
BT58A3-M2	868,350	3	25
BT58A3-M3	868,550	3	25
BT58A3-M4	868,750	3	25
BT58A3-M5	868,950	3	25
BT58A3-M6	869,150	3	25
BT58A3-M8	869,550	3	25
BT58A3-M9 a	869,850	3	25

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

PIN DESCRIPTION

Pin	Signal	Description
PIN2	TXD	Data Input
PIN3	N.U	
PIN4	GND	Ground
PIN11	GND	Rf ground
PIN13	ANT	Rf Output
PIN15	VCC	Dc supply



BT58 Mechanical Dimensions

BT58 - PERFORMANCE DATA							
		Min	Typ	Max	Units	Notes	
▪ FREQUENCY		868		870	MHz	(1)	
▪ RF POWER	BT58 A5	25	30		mW	(2)	
	BT58 A3	10	15		mW	(2)	
▪ IMPEDANCE			50		Ω		
▪ FREQUENCY ACCURACY			± 20	± 30	KHz	(3)	
▪ II HARMONIC			-50	-45	dBc		
▪ SPURIOUS EMISSION			-55	-50	dBc		
▪ DATA RATE				19.2	KB	(4)	
▪ POWER UP TIME				2	ms		
▪ SUPPLY VOLTAGE		BT57 A5	4.5	5	5.5	V	
		BT57 A3	2.75	3	3.5	V	
▪ SUPPLY CURRENT - MEAN			18		mA	(4)	
▪ SUPPLY CURRENT - CW			30	35	mA		
▪ OPERATING TEMPERATURE			-20	+60	$^{\circ}\text{C}$		

NOTE:

- (1) CHANNEL SEPARATION = 200 KHz.
- (2) MAX. LEGAL ERP = 25 MW ERP (SUB BAND F AND G) -5MW ERP (SUB BAND K).
- (3) OVER OPERATING TEMPERATURE RANGE.
- (4) 50 / 50 MARK / SPACE DATA PATTERN.

