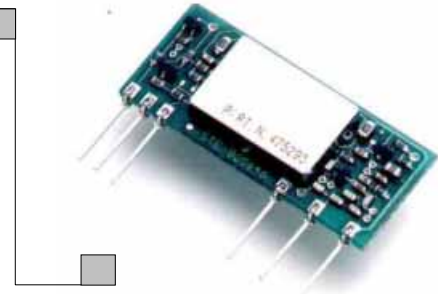


BT58 S			
SRD	TX	XTAL	ISM 868 – 870 MHz

TABLE 1 - BT58 S VERSIONS

BT58 S5-M1	868,150 MHz	5 VDC	30 mW
BT58 S5-M2 (1)	868,350 MHz	5 VDC	30 mW
BT58 S5-M3	868,550 MHz	5 VDC	30 mW
BT58 S5-M4	868,750 MHz	5 VDC	30 mW
BT58 S5-M5 (1)	868,950 MHz	5 VDC	30 mW
BT58 S5-M6	869,150 MHz	5 VDC	30 mW
BT58 S5-M8	869,550 MHz	5 VDC	30 mW
BT58 S5-M9 a	869,850 MHz	5 VDC	30 mW
BT58 S3-M1	868,150 MHz	3 VDC	25 mW
BT58 S3-M2	868,350 MHz	3 VDC	25 mW
BT58 S3-M3	868,550 MHz	3 VDC	25 mW
BT58 S3-M4	868,750 MHz	3 VDC	25 mW
BT58 S3-M5	868,950 MHz	3 VDC	25 mW
BT58 S3-M6	869,150 MHz	3 VDC	25 mW
BT58 S3-M8	869,550 MHz	3 VDC	25 mW
BT58 S3-M9 a	869,850 MHz	3 VDC	25 mW

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



- XTAL CONTROLLED
- GASK MODULATION
- HIGH POWER (+ 14 dBm)
- FAST DATA RATE (28,8 KB)

DESCRIPTION:

The BT58 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 BT58 S has a 30mW RF output power (25 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 25 mW ERP.

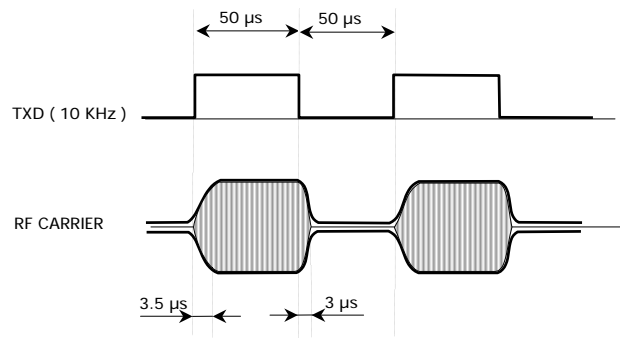


Fig.1 – GASK MODULATION (BAUD RATE 20 KB).

BT58 S - PERFORMANCE DATA

		Min	Typ	Max	Units	Notes
▪ FREQUENCY		868		870	MHz	(1)
▪ RF POWER	BT58 S5	25	30		mW	(2)
	BT58 S3	20	25		mW	(2)
▪ IMPEDANCE			50		Ω	
▪ FREQUENCY ACCURACY			± 20	± 30	KHz	(3)
▪ II HARMONIC			-50	-45	dBc	
▪ SPURIOUS EMISSION			-55	-50	dBc	
▪ DATA RATE				28.8	KB	(4)
▪ POWER UP TIME				2	ms	
▪ SUPPLY VOLTAGE	BT58 S5	4.5	5	5.5	V	
	BT58 S3	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 POWER = 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.

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

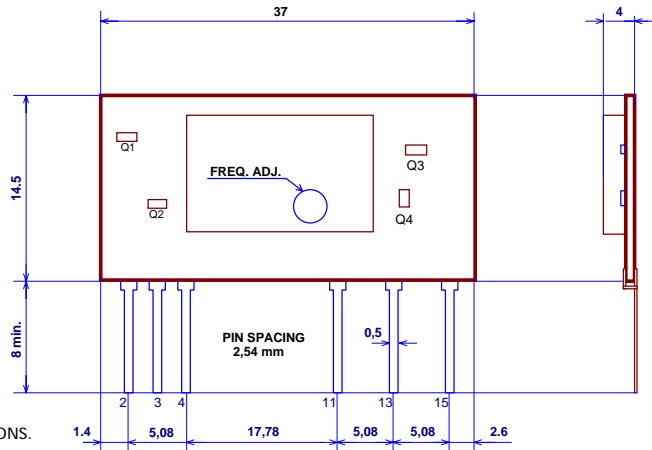


Fig.2 - BT 58 S PHYSICAL DIMENSIONS.

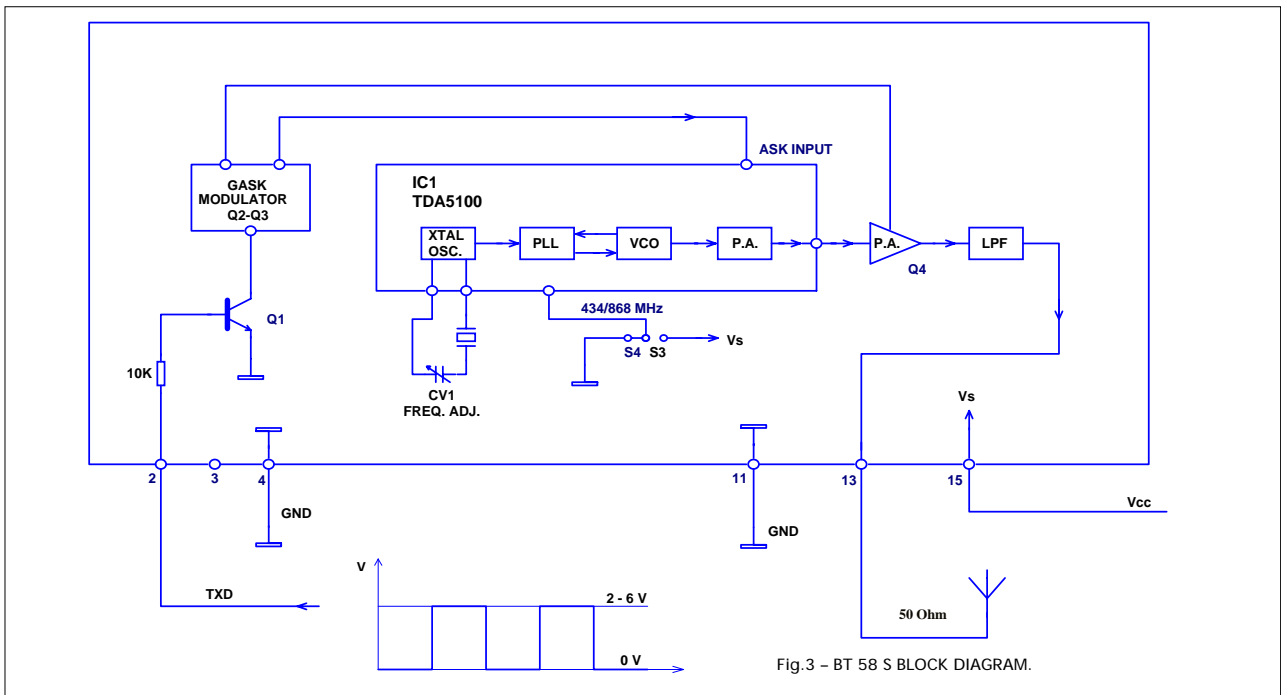


Fig.3 - BT 58 S BLOCK DIAGRAM.

