

DS-300 Technical Description (Transmitter)

The DS-300 is an electronic scale with a remote display. The DS-300 Scale Unit includes a weighting circuit and a RF transmitter circuit.

The Scale Unit can operate on 9V Battery and the included adaptor. When there is no weight action for 2 minutes, the Scale Unit will enter sleep mode to save power.

As the Scale Unit is kicked on the surface, the Wake up circuit will trigger the unit to wake up. When the Scale Unit is loaded, the transducers (load cells) will convert the weight to electronic signal and send to the CPU for conversion. The electronic signal is used to calculate the weight reading in Kg or Lb (depends on the switch setting). After a stable reading is reached, the reading data then, goes to modulate the 433.9MHz carrier in ASK format and is sent out. The Remote Display will show out the reading after received the RF signal.

The transmitter module mainly consists of Q1(modulator), SWAP(generate 433.92MHz oscillation) and Q2(RF amplifier).

TXC1

315/433.92MHZ
Hybrid
Transmitter

Ideal for 315/433.92MHz Remote Keyless-Entry Transmitter.

SAW RESONATOR

ASK Design

The TXC1 is an ASK transmitter module .The result is excellent performance in a simple-to-use .The TXC1 is designed specifically for remote-control , wireless mouse and car alarm system operating at 315/433.92 MHZ.



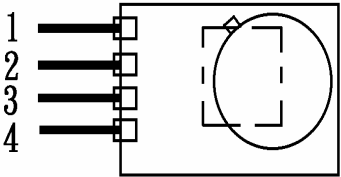
Absolute Maximum Ratings

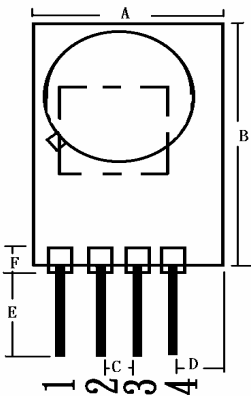
Parameter	Value	Units
Power Supply and/or Modulation Input Voltage	3	V
Operating temperature	-20 to +80	

Transmitter Characteristics

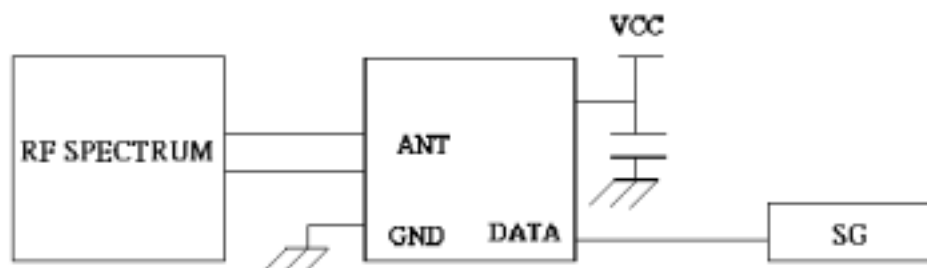
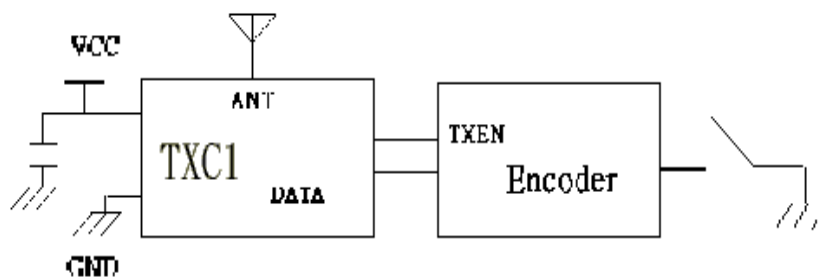
Parameter	Symbol	Condition	Value			Unit
			min.	typ.	max.	
Output power		V _{cc} =3.0V,TA-27 , 50Ωload		3		dBm
				3		dBm
Supply current	I _{cc}			10		mA
Supply voltage Range	V _{cc}			3		V
Data Rate			300		10K	bps

Pin assignment

PIN	Connections	
1	GND	
2	DATA	
3	VCC	
4	ANT	



Dimensions	Millimeters	Dimensions	Millimeters
A	14.5 +/-0.25mm	E	5.9 +/-0.1mm
B	18.5 +/-0.25mm	F	0.1 +/-0.05mm
C	2.54 (MAX)	G	0.3 +/-0.01mm
D	5.0 +/-0.1mm	H	4 +/-0.25mm

Typing Test Circuit**Typical transmitter Application****Notes:**

1. Encoder : HT12D/F , PTC (2262)
2. Antenna : Length = 22.6cm for 315MHz ; Length = 17.2 cm for 433.92MHz.