

FCC ID: RCM30191

Technical Description :

The brief circuit description is listed as follows :

- U1 (EM78P156EL) and associated circuit act as Encoder.
- Q1 and associated circuit act as LED Driver.
- U2 (A7302_MODULE) and associated circuit act as 433MHz RF Module.
- Y2 and associated circuit act as 4MHz Oscillator.
- U3 and associated circuit act as Voltage Regulator.

Antenna Used :

An Internal Antenna has been used.



Preliminary

A7302A/B

Sub 1GHz ASK / FSK Transmitter

use in life-support applications, devices or systems or other critical applications. Use of AMICCOM products in such applications is understood to be fully at the risk of the customer.

1. General Description

The A7302 is a crystal based single chip ASK/FSK transmitter for operation in frequency band 300~450MHz/850~928MHz. This crystal based architecture provide better performance such as frequency stability, faster frequency settling and easier for mass production,

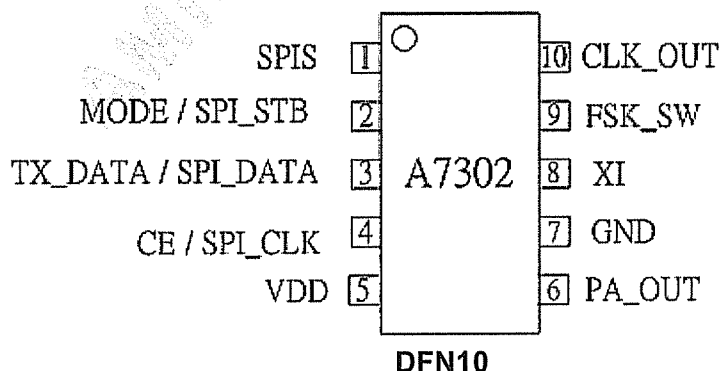
2. Typical Applications

- Remote Control.
- Wireless Sensor.
- Tire Pressure Monitoring.
- Garage Door Openers.
- Wireless Toy.

3. Features

- Small DFN10 package.
- A7302A for 300~450MHz. A7302B for 850~950MHz
- Very simple control interface: Only 1~ 2 signal is possible.
- Fully integrated PLL, VCO, PA, and Crystal oscillator.
- 2.2V ~3.6V operation.
- -40~85/125 °C operation.
- Power down mode.
- Fast on crystal oscillator.
- Typical low cost 4/12/13.56/16MHz crystal.
- 13mA@ +10dBm 433MHz / 11.5mA @ +5dBm 868Mhz
- Build in RF power control.
- Data rate up to 20Kbps

4. Pin Configuration



Important Notice:

5. Pin Description

Pin No.	Pin Name	Function
1	SPIS	SPI selection. Connect to GND: Pin 2,3,4 will be configured as MODE, TX_DATA and CE. Connect to VDD: Pin 2,3,4 will be configured as SPI_STB, SPI_DATA and SPI_CLK.
2	MODE	Chip mode selection Connect to GND: 433MHz band, ASK mode. Connect 120K Ω to GND: 315MHz band, ASK mode. Connect 240K Ω to GND: 315MHz band, FSK mode. Connect to VDD: 433MHz band, FSK mode.
	SPI_STB	SPI strobe.
3	TX_DATA	Transmitted data input.
	SPI_DATA/TX_DATA	SPI data input.
4	CE	Chip enables. Logic high sets the chip into active mode.
	SPI_CLK	SPI clock.
5	VDD	Power supply.
6	PA_OUT	Power amplifier output.
7	GND	Ground.
8	XI	Crystal oscillator port
9	FSK_SW	FSK modulation switch.
10	CLK_OUT	Divided clock output. Fclk=Fxtal/16 or /4. Default /4. Could be changed by SPI.

6. Block Diagram

