

MODEL NO: 60525 TX

TX BLOCK DIAGRAM

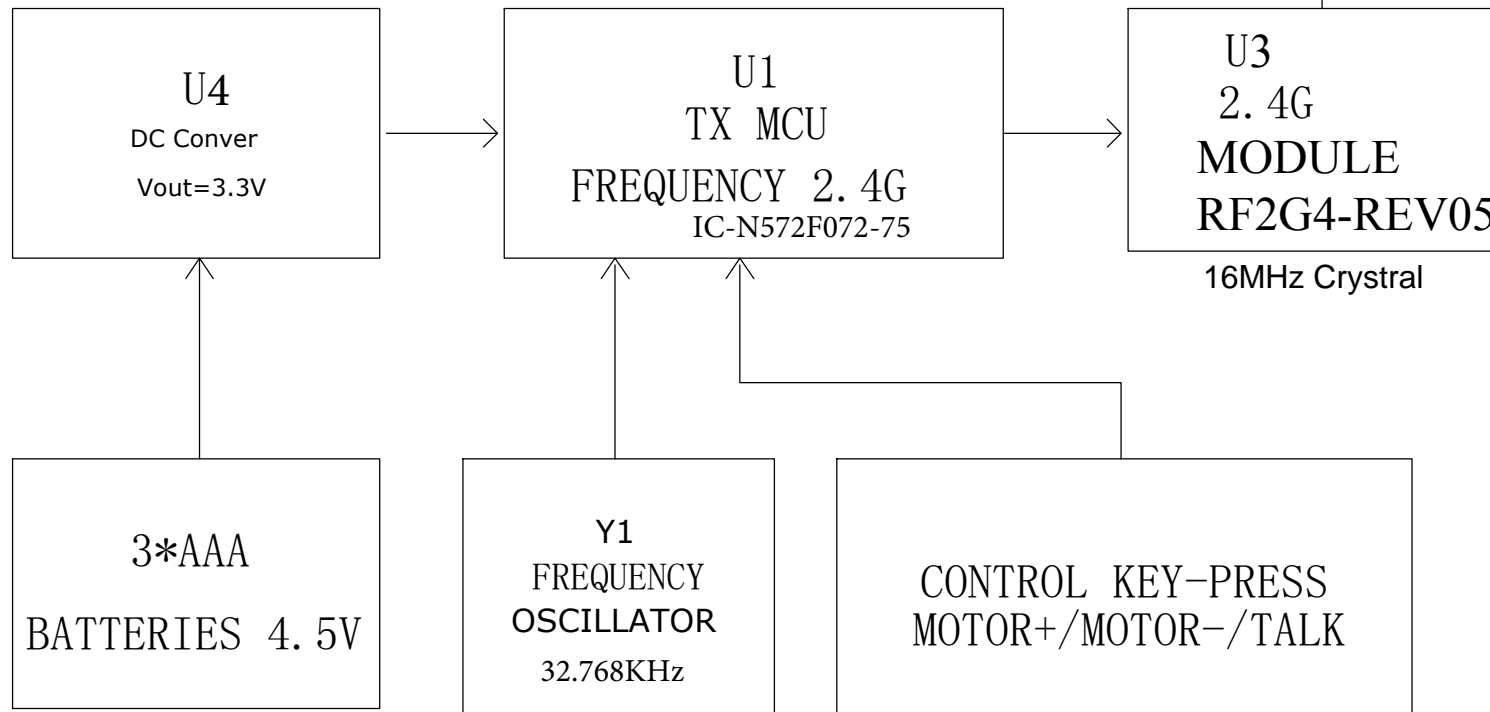
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APPLICANT: TOY STATE INDUSTRIAL LTD

2420-2460MHz



TX ANTENNA
2.4GHz



COMPANY: TOY STATE INDUSTRIAL LTD	
MODEL: 60525 TX BLOCK DIAGRAM(2.4GHZ)	
VER: 00	
DWN. WYP	DATE: 2016-4-5
CHK. Wang	DATE: 2016-4-5
APP. Xiao	DATE: 2016-4-5

1 General Description

RF2G4-REV05 is a GFSK transceiver operating in the world wide ISM frequency band at 2400-2483.5 MHz. Burst mode transmission and up to 2Mbps air data rate make them suitable for applications requiring ultra low power consumption. The embedded packet processing engines enable their full operation with a very simple MCU as a radio system. Auto re-transmission and auto acknowledge give reliable link without any MCU interference.

RF2G4-REV05 operates in TDD mode, either as a transmitter or as a receiver.

The RF channel frequency determines the center of the channel used by RF2G4-REV05. The frequency is set by the RF_CH register in register bank 0 according to the following formula: $F_0 = 2400 + RF_CH$ (MHz). The

resolution of the RF channel frequency is 1MHz.

A transmitter and a receiver must be programmed with the same RF channel frequency to be able to communicate with each other.

The output power of RF2G4-REV05 is set by the RF_PWR bits in the RF_SETUP register.

Demodulation is done with embedded data slicer and bit recovery logic. The air data rate can be programmed to 250Kbps, 1Mbps or 2Mbps by RF_DR_HIGH and RF_DR_LOW register. A transmitter and a receiver must be programmed with the same setting.

In the following chapters, all registers are in register bank 0 except with explicit claim.

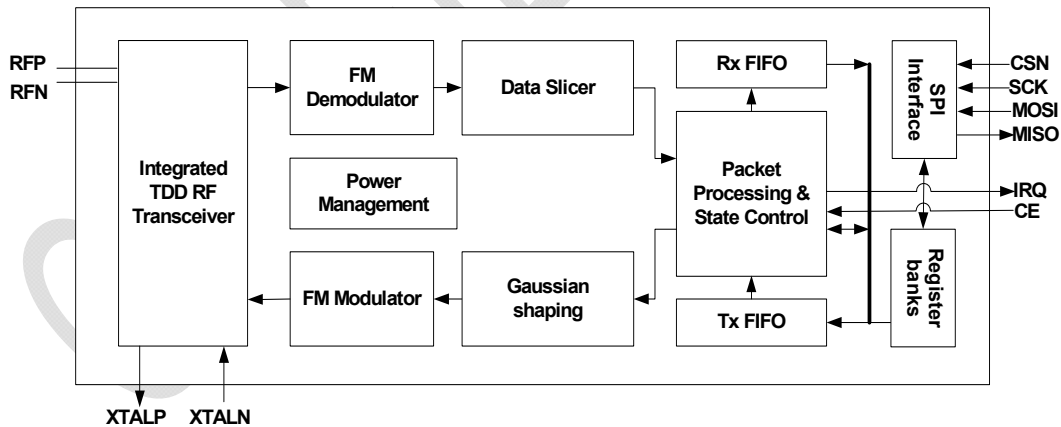


Figure 1 RF2G4-REV05 Chip Block Diagram