Circuit Block Diagram

Manufacturer: TagSense, Inc.
Manufacturer part number: ZT-50 Active RFID Tag

```
ATMega328P          16 MHz / 32Khz
Microntroller       clock

                    16 MHz

                    CC2420
48 MHz              Transceiver
internal
oscillator          Data          2.4 GHz
                    IN/OUT        Antenna

Micro-              Radio-IC
controller

External Reader device
```
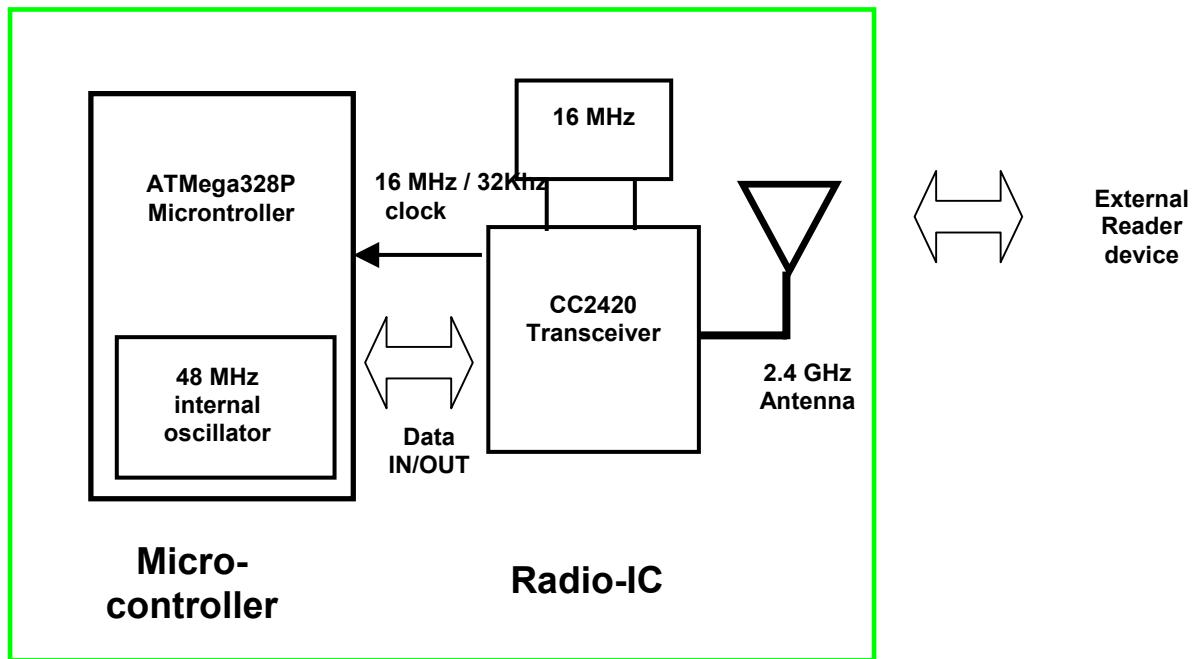
Description:

This is an Active RFID tag. The communications employs a packet-based protocol. The tag wakes up periodically to transmit a data packet, then it goes back to sleep. Transmission lasts a few milliseconds. Transmit power is 1 milliwatt maximum. There is no frequency hopping.

Circuit Block Diagram

Manufacturer: TagSense, Inc.
Manufacturer part number: ZT-ZR Active RFID Radio module

External
User
Device

16 MHz

ATMega328P
Microntroller

16 MHz
clock

CC2420
Transceiver

2.4 GHz
Antenna

Data
IN/OUT

Micro-controller

Radio-IC
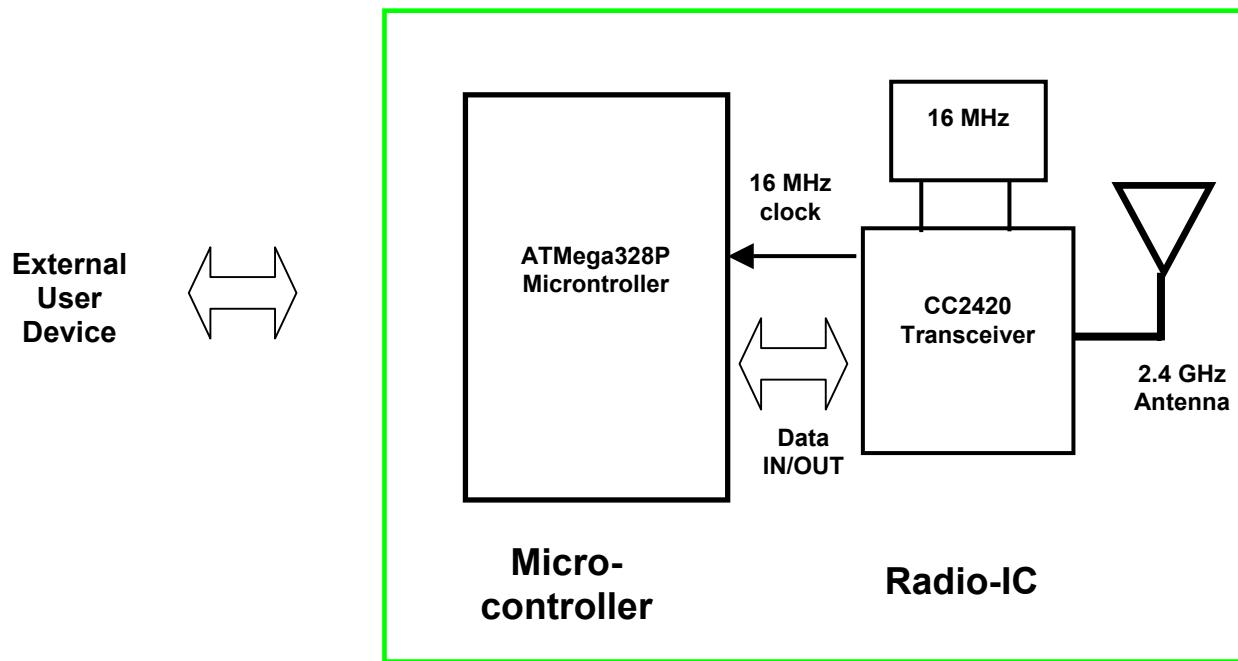
Description:

The ZT-ZR Active RFID radio module. The communications employs a packet-based protocol. The tag wakes up periodically to transmit a data packet, then it goes back to sleep. Transmission lasts a few milliseconds. Transmit power is 1 milliwatt maximum. There is no frequency hopping. Modulation is direct sequence spread spectrum (DSSS). The tag may operate in one of 16 different frequency channels, from 2405 MHz to 2480 MHz. (bandwidth =5 MHz)