

RF SECTION

1. Bands of operation – 433.92MHz, 868.3MHz and 915MHz
2. Adjustable data rates – 0.3kbit/s to 100 kbit/s NRZ
3. Modulation Schemes – FSK, OOK
4. Transmit Power Range -7dBm to 15dBm
5. PA Drain Efficiency @Output power of 12dBm for 915MHz = 65%
6. Image Channel Rejection = 40 dB minimum
7. Concurrent Multiple Channel Receive, upto 5 Channels simultaneously, current consumption of 130uA per receive channel
8. Supply voltage – 1.5V to 3.6V
9. Receive Supply Current = 1.5mA (for carrier frequency variation of 20kHz)
10. Sensitivity of -116dBm at 1kbit/s, $\Delta f=1\text{kHz}$, IF Bandwidth = 40kHz
11. RSSI Range = 70dB, RSSI accuracy = +-1.5dB
12. Operating Temperature – -40 C to 85 C
13. Image Channel Rejection = 40dB minimum
14. IF Channel bandwidth = 35kHz to 300kHz

BASEBAND SECTION

1. State Machine implementing a proprietary protocol for RF communication and tag singulation
2. Optional FLASH memory 4kbits
3. SPI Interface