

RTFQ1-XXX

FSK Radio Transmitter with Crystal Oscillator and External Antenna

General description

The RTFQ1-XXX is an hybrid circuit that allows to realize a complete radio transmitter adding a coding circuit.

It shows stable electric characteristics thanks to the "Thick film hybrid" technology.

XXX : working frequency (315, 433.92, 868.35 MHz)



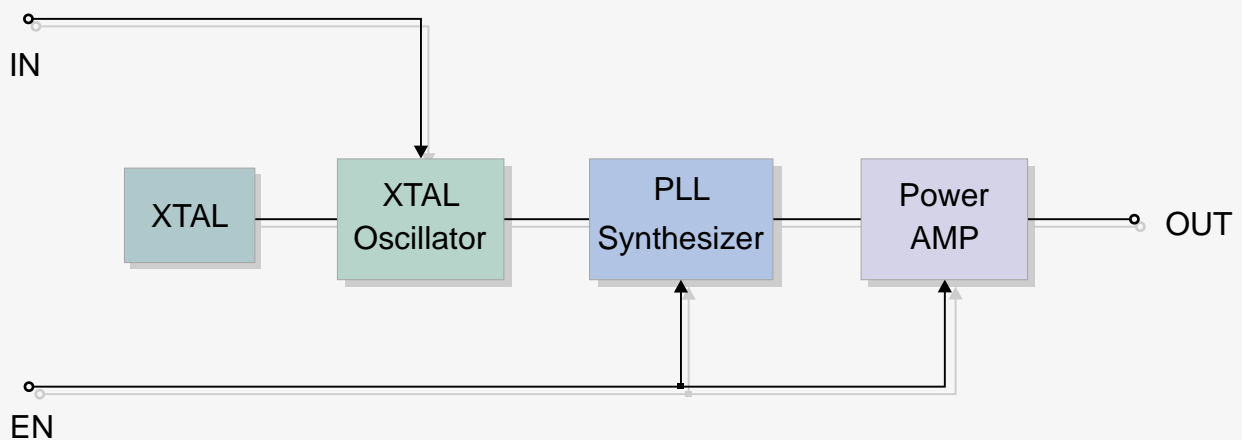
Features

- High Reliability
- DIL Package

Applications

- Wireless security systems
- Car Alarm systems
- Remote gate controls
- Sensor reporting

BLOCK DIAGRAM



Electrical Characteristics

Ta = 25°C unless otherwise specified

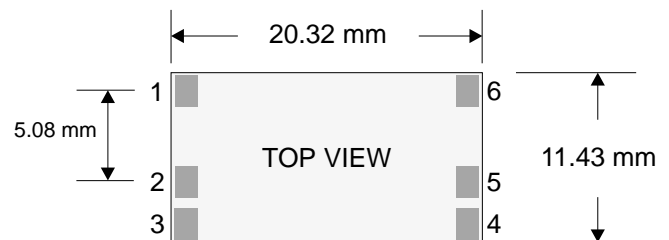
| CHARACTERISTICS | | MIN | TYP | MAX | UNIT |
|----------------------|---|-----|------------------|-----------------|------|
| V _{CC} | Supply Voltage | 2.2 | 3.3 | 4 | VDC |
| I _S | Operating Supply Current | | 7 | 8 | mA |
| I _{STANDBY} | Standby Supply Current (IN = EN = Low) | | | 100 | nA |
| F _W | Working Frequency | | 315/433.9/868.35 | | MHz |
| P _O | RF Output Power into 50Ω (V _{CC} = 3.3V) | | +5 / +5 / +1 | | dBm |
| | Initial Frequency Accuracy | -35 | 0 | +35 | KHz |
| | FM Deviation (+/-) | 25 | 30 | 35 | KHz |
| | Harmonic Spurious Emission | | -40 | | dBc |
| V _{IH} | Input High Voltage | 1.5 | | V _{CC} | V |
| | Max Data Rate | | | 9.6 | Kbps |
| | Power-Up Time (EN → full RF) | | | 1 | msec |
| T _{OP} | Operating Temperature Range | -25 | | +80 | °C |

| EN | IN | STATE |
|----|-------|-----------------|
| L | L | Power Down Mode |
| H | H / L | Transmit Mode |

Pin Description

| | | | | | |
|---|-----|---------|---|-----------------|------------------|
| 1 | EN | Enable | 4 | V _{CC} | Supply Voltage |
| 2 | IN | Data In | 5 | GND | Ground |
| 3 | GND | Ground | 6 | EA | External Antenna |

Mechanical Dimensions



TYPICAL APPLICATION

