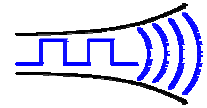


NEW

Radiometrix



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TX3B-xxx.xx-64

869MHz Wide Band FM Transmitter

The TX3B radio transmitter module is an enhanced high power replacement for the European version TX3A-869-64 transmitter

Two frequency variants are available in the European unlicensed band, one with 5mW RF power with no duty cycle restriction other with 8mW RF power with 1% duty cycle restriction.



Figure 1: TX3B-869.85-64 transmitter

Features

- Complies with European harmonised standards EN 300 220 and EN 301 489
- 869.85MHz 5mW 100% duty cycle or 868.30MHz 8mW 1% duty cycle
- RF power output +9dBm (8mW) on 868.30MHz
 +7dBm (5mW) on 869.85MHz
- Data rates up to 64kbps
- Crystal controlled PLL FM transmit circuitry
- Supply: 2.9V - 16V @ 14mA (8mW)
- 32 x 12.5 x 3.8mm

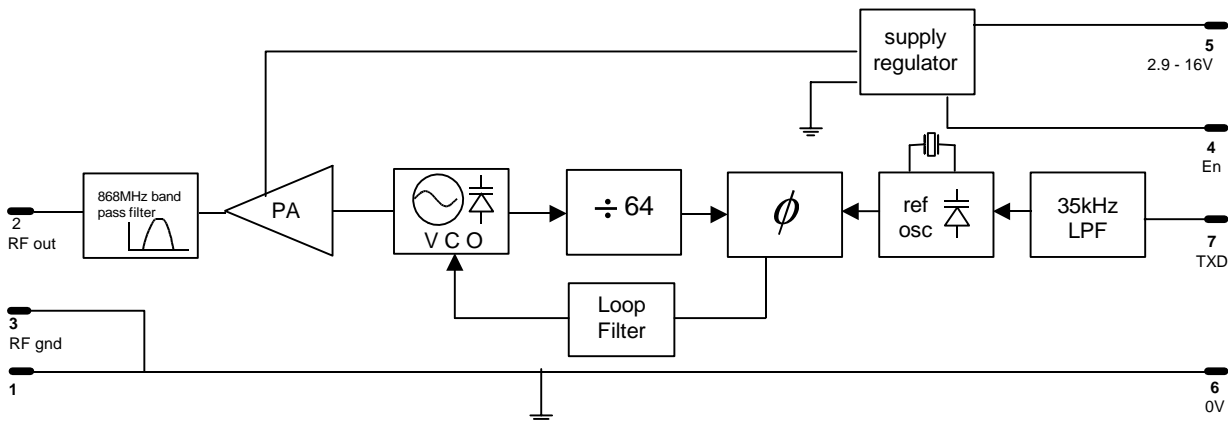
Available for operation in the 868-870MHz band in Europe, it combine full screening with internal filtering to ensure EMC compliance by minimising spurious radiation and susceptibility. The TX3B and matching RX3A will suit one-to-one and multi-node wireless links in such applications as car and building security, EPOS and inventory tracking, remote industrial process monitoring and data networks. Because of their small size and low power requirements, both modules are ideal for use in portable, battery-powered applications such as hand-held terminals.

Applications

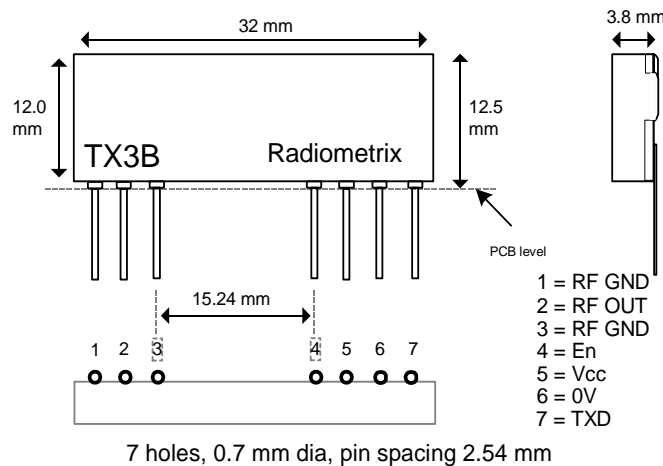
- Tracing and asset tracking systems
- Handheld terminals
- Meter reading systems
- Industrial telemetry and telecommand
- Data loggers
- In-building environmental monitoring and control
- Security and fire alarms
- Vehicle data up/download

Functional description

The TX3B transmitter module uses a frequency modulated crystal-locked PLL and operates between 2.9V and 16V at a current of 14mA nominal. At 3V supply it delivers nominally 9dBm (8mW) RF output. The SIL style TX3A measures 32 x 12 x 3.8 mm, excluding pins.



User interface



7 holes, 0.7 mm dia, pin spacing 2.54 mm

Fig. 2: TX3B physical dimensions

| TX3B pin | Name | Function |
|----------|--------|---|
| 1, 3 | RFgnd | RF Ground |
| 2 | RF out | 50Ω RF output to the antenna |
| 4 | EN | Pull high to enable Transmitter |
| 5 | VCC | 2.9V - 16V DC power supply |
| 6 | 0V | Ground |
| 7 | TXD | DC coupled input for 3V CMOS logic. $R_{in} = 100k\Omega$ |

Note: Pin out as TX2A and standard TX3A

Ordering information

For European applications in the 868 - 870MHz band:

@ 869.85MHz

Transmitter: TX3B-869.85-64
 Matching RX3A receiver: RX3A-869.85-10 (10kbps version)
 RX3A-869.85-64 (64kbps version)

@ 868.30MHz

Transmitter: TX3B-868.30-64
 Matching RX3A receiver: RX3A-868.30-10 (10kbps version)
 RX3A-868.30-64 (64kbps version)