869MHz Wide Band FM Transmittersmitter

PDF - Download here •

TX3B

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-869-64 & RX3A-869-64

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

Evaluation Platform: Universal Evaluation kit or Narrow Band Evaluation Kit
Matching Receiver: RX3A-869-10/64

TOP

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

Expanded plan **Figure 2: TX3B pin-out and dimension**

TX1B pin	Name	Function
1, 3	RFgnd	RF Ground
2	RF out	50Ω RF output to the antenna
4	$\overline{EN}$	Pull high to enable Transmitter
5	Vcc	2.9V - 16V DC power supply
6	0V	Supply Ground
7	TXD	DC coupled input for 3V CMOS logic. Rin = 100kΩ

Note: Pin out as TX2A and standard TX3A

TOP

Limitation of liability

The information furnished by Radiometrix Ltd is believed to be accurate and reliable. Radiometrix Ltd reserves the right to make changes or improvements in the design, specification or manufacture of its subassembly products without notice. Radiometrix Ltd does not assume any liability arising from the application or use of any product or circuit described herein, nor for any infringements of patents or other rights of third parties which may result from the use of its products. This data sheet neither states nor implies warranty of any kind, including fitness for any particular application. These radio devices may be subject to radio interference and may not function as intended if interference is present. We do NOT recommend their use for life critical applications.
The Intrastat commodity code for all our modules is: 8542 6000.

R&TTE Directive

After 7 April 2001 the manufacturer can only place finished product on the market under the provisions of the R&TTE Directive. Equipment within the scope of the R&TTE Directive may demonstrate compliance to the essential requirements specified in Article 3 of the Directive, as appropriate to the particular equipment.
Further details are available on The Office of Communications (Ofcom) web site:
Licensing policy manual