

Procontrol[®] RFP-3

Radio Transceiver / controller 433 or 868 MHz,
SMA connection prepared

Datasheet

Version: 4.0

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RFP-3

Radio Transceiver / controller 433 or 868 MHz, SMA connection prepared



RFP-3 is a hybrid data radio module built with nRF true single chip system: integrated radio frequency transceiver with embedded microcontroller and a 4 input (10bit 80kps) ADC converter, antenna filter and adapter system for connecting an 50 Ohm antenna, 50 Ohm SMA antenna connection prepared.

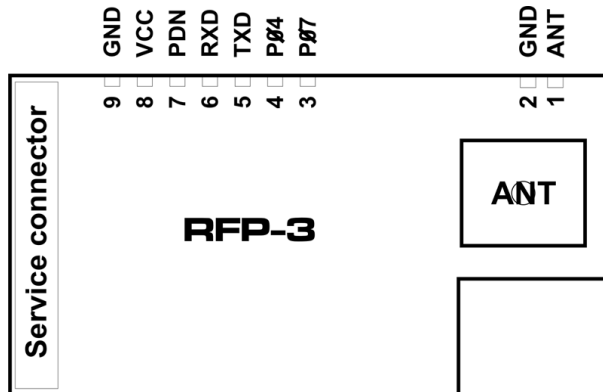
The transceiver of the system among others supports ShockBurst technology, which handles the automatic "allocation", addressing and CRC default correcting. The circuit has embedded voltage regulators, which provides maximal noise immunity and allows operation on a single 3.6V to 5.5 V supply. The module is compatible with FCC CFR47 standard and ETSI EN 200-1. It operates in licence-free frequency bands.

The module has internal signal interface circuits, so it is connectable directly to Rx/D, Tx/D signals of 3,3 V and 5V systems (see Typical applications).

Features:

- Típusok:
 - RFP-3A: 433 MHz-re
 - RFP-3B: 868 MHz-re
- 8051 compatible embedded microcontroller
- 4 input, 10bit 80kps ADC
- 3,6V - 5,5V power supply
- Embedded antenna interfacing
- 2.5µA operating current (standby) with timed or outer wakeup
- Adjustable output power up to 10dBm
- Channel switching time less than 650µs
- Low TX (transmit) current, 12mA (at -10dBm)
- Low RX (receive) current; 12.5mA peak
- Low MCU current; 2.6mA (16MHz / on 3V)
- Carrier Detect signal for Listen Before Transmit protocol
- SMA antenna connection prepared
- External antenna connection

Pinout:



Applications:

- Sports and leisure equipment
- Alarm and system
- Industrial sensors
- Remote control
- Surveillance
- Automotive industry
- Telemetry
- Keyless entry
- Toys

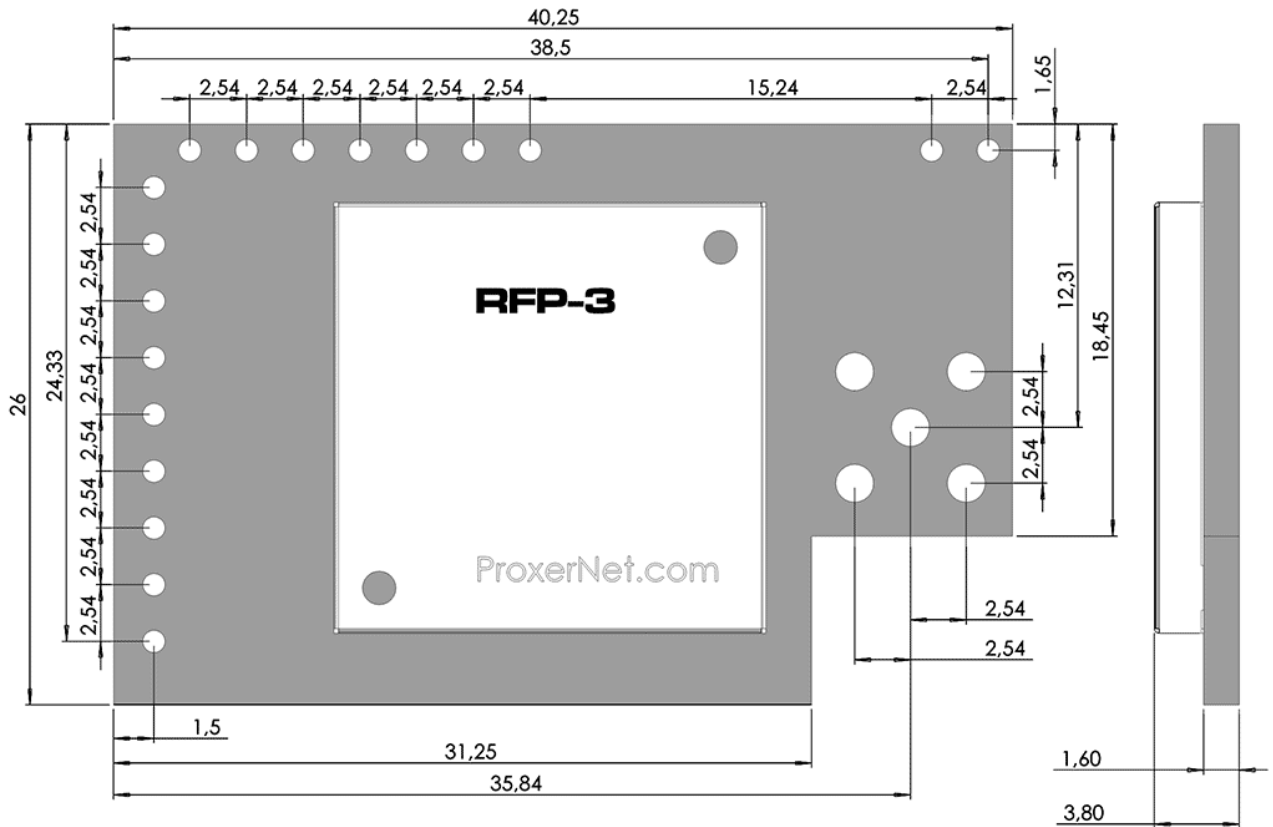
Quick reference data

Parameters	Value	Unit
Supply voltage range	3.6...5.5	V
Supply current in transmit mode	30	mA
Supply current in receive mode	15	mA
Frequency range RFP-3A	433.1 ... 434.7	MHz
Frequency range RFP-3B	866.2 ... 869.4	MHz
Frequency step	100	kHz
Range	~300	m
Baudrate (maximum)	38400	baud/s
Temperature range	-40 .. +85	°C
Supply current for microcontroller (16MHz / on 3V)	2.6	mA
Maximum transmit output power	10	dBm
Transmitted data rate	100	Kbps
Receiver sensitivity	-100	dBm
Supply current in „Power down” mode	2.5	µA

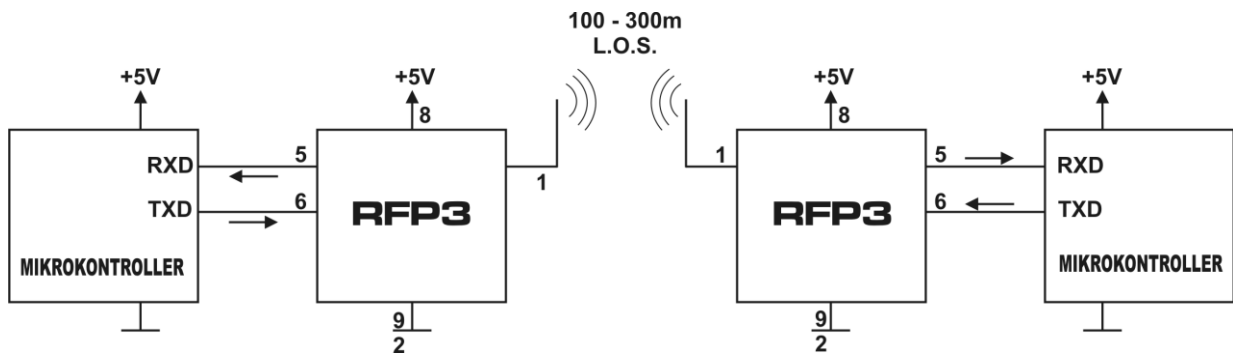
RFP-3 Radio Transceiver / controller 433 MHz, SMA connection prepared

Dimensions

(mm)



Typical application:



The basic version of the RFP modules are sold with embedded software: RFP-RX/TX serial datatransmitter software. The ID of the programmed version is: RFP-3-RX/TX

RFP-3 Radio Transceiver / controller 433 MHz, SMA connection prepared

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