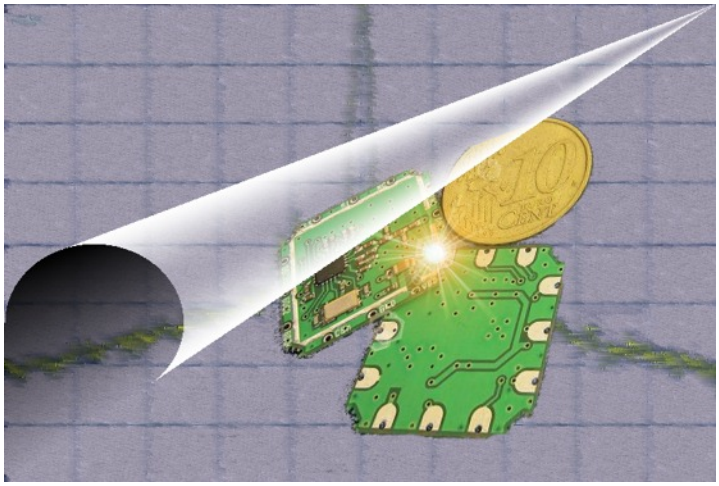
Your best partner for embedded RF design



BITxxTXL
BITxxRXL
BITxxRTL

433, 868 MHz Trasmitter, Receiver and Transceiver Modules

Very low cost modules designed for very low power wireless applications in a very small package (14.4 x 14.4 mm)

Highly Integrated RF Solutions

The **BITxxYYL** series of modules are very small complete and compact RF solutions.

Different versions of the product are available for RF applications in the 433 and 868 MHz unlicensed ISM (Industrial, Scientific and Medical) and SRD (Short Range Device) frequency bands.
BITxxYYL are ideal solution for home and building automation, control system, sensor networks, etc.

Module can be SMT assembled.
Lead-free “green package.
With only 14,4 x 14,4 mm footprint the modules provide a real cost-effective wireless solution.

No additional components are needed, except for a simple antenna and a microcontroller with only 4 pins plus 2 optional

All the operating parameters are fully configurable via an SPI interface: RF data-rate, output power, operating channel, Carrier sense, packet length, etc.

BITxxYYL are suited for system compliant with EN 300 220 (Europe) and FCCCFR Part 15 (US).

Order code are:

BIT04TXL : Transmitter 433 MHz
BIT08TXL : Transmitter 868/915 MHz
BIT04RXL : Receiver 433 MHz
BIT08RXL : Receiver 868/915 MHz
BIT04RTL : Transceiver 433 MHz
BIT08RTL : Transceiver 868/915 MHz

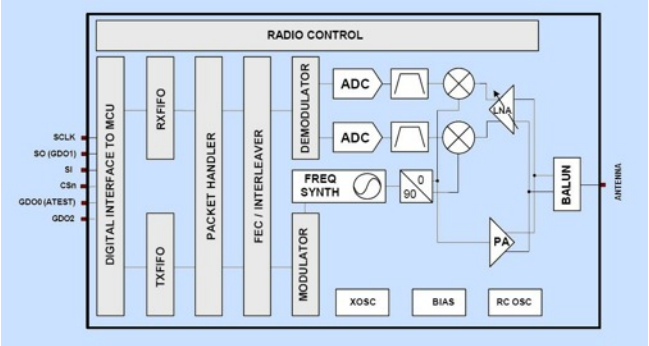
Configuration Software

BITxxYYL can be configured using the SmartRF® Studio software , available for download from http://www.ti.com/lpw. The SmartRF® Studio software is highly recommended for obtaining optimum register settings, and for evaluating performance and functionality.

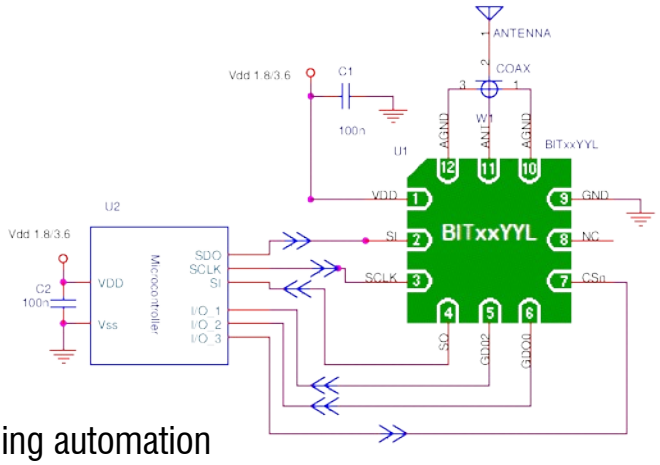
Features

- Small size (14.4 x 14.4 mm)
- Receive sensitivity down to −116 dBm at 0.6 kbps
- Programmable output power up to + 12 dBm
- Programmable data rate from 0.6 to 600 kbps
- 2-FSK, 4-FSK, GFSK, and OOK supported
- Flexible support for packet oriented systems
- Support for sync word detection, flexible packet length, and automatic CRC Calculation
- 200 nA sleep mode current consumption
- Fast start-up time; 240 us from sleep to RX or TX mode
- 64-byte RX and TX FIFO

Block Diagram



Typical Application



Applications

- Radio Modems
- Alarm and security systems Home and building automation
- Wireless sensor networks
- Telemetry Station
- Wireless audio
- OEM equipment

Operating Conditions and Specification

Parameter	Min.	Typ.	Max	Units	Remarks
RF Frequency Range	387.0 779.0		464.0 928.0	MHz	BIT04TXL, BIT04RXL, BIT04RTL BIT08TXL, BIT08RXL, BIT08RTL
Operating Temperature	-40		+85	°C	
Supply Voltage Vdd	1.8		3.6	V	
Current Consumption		0.2 29 15	1	uA mA mA	Power Down Tx mode, 10 dBm output power Receive mode @ 1.2 kbps
Sensitivity		-112 -95		dBm	@ 1.2 kbps @ 250 kbps

Bit is Italian Technology S.r.l.
Viale delle Industrie, 20 - 20020 Arese (MI)
Tel.: (+39)0230465311, fax: (+39)0230465396
http://www.bit.it info@bit.it

a KEVIN SCHURTER company
http://www.kevin.it info@kevin.it