
nRF24L01 Evaluation kit

nRF24L01-EVKIT

INTRODUCTION

The Evaluation Kit for the nRF24L01 Single Chip 2.4 GHz RF Transceiver has been developed to enable customers to get hands-on experience with the functionality of the device in their applications.

The nRF24L01 Evaluation Kit is convenient for use in the prototyping phase when developing, testing and debugging PC software, microcontroller code and/or electronic circuitry for interfacing towards nRF24L01 and a wireless communication link.

The nRF24L01 EVKIT contains two nRF24L01 EVSYSTEM boards and three nRF24L01 Reference Modules. This helps the customer through the getting started phase. Through the nRF24L01 EVSYSTEM, configuration and Enhanced Shock Burst™ communication are easily managed through PC software.

Detailed description of the nRF24L01 Reference Modules is given in the nRF24L01 REFMOD documentation.

The nRF24L01 EVSYSTEM are described in the nRF24L01 EVSYSTEM documentation. Suggestions for test benches for evaluation of performance parameters are given in the nRF24L01 Test Setup documentation.

GETTING STARTED

The nRF24L01 Evaluation Kit contains the following items:

- Two reference modules with the nRF24L01 transceiver and PCB antenna
- One reference module with the nRF24L01 transceiver and SMA connector
- Two nRF24L01 EVSYSTEM for PC interface
- CD-ROM containing:
 - “nRF24L01EC User Guide” document
 - “nRF24L01 REFMOD” document
 - “nRF24L01 EVSYSTEM” document
 - “nRF24L01 Test Setup” document
 - “nRF24L01 Firmware description” document
 - nRF24L01 Firmware
 - nRF24L01EC configuration and control software for PC
 - “nRF24L01-EVKIT” documentation (this document)

The nRF24L01 datasheet can be downloaded from the Nordic Semiconductor web pages:
<http://www.nordicsemi.no>.

Combined with the antenna, the nRF24L01 REFMOD is a complete radio module with a digital SPI for connection to the customer’s application circuitry.

Figure 1 shows a typical set-up with the nRF24L01 REFMOD connected to the customer’s application circuitry in order to develop and debug a complete wireless communication link.

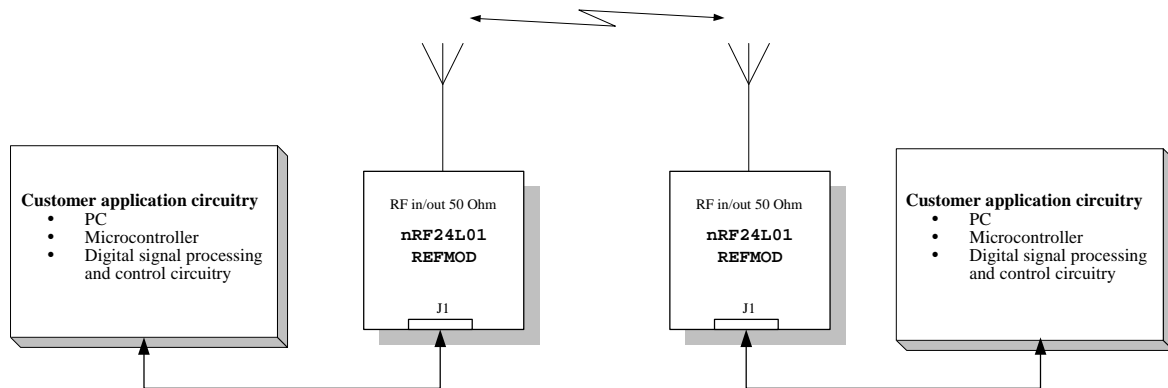


Figure 1 Set-up with the nRF24L01 REFMOD connected to the customer's application circuitry

The following points must be considered when connecting to the nRF24L01 REFMOD:

- The nRF24L01 REFMOD can be soldered directly onto a prototype board.
- A twisted pair flat cable can be used to connect to header J1 on the nRF24L01 REFMOD. The cable length must be kept as short as possible.
- Ensure that the peak-to-peak voltage level of the data input signal DATA and the control signals never exceed the nRF24L01 device absolute maximum ratings.

Details regarding digital input/output voltage levels, configuration and timing requirements for control of the nRF24L01 device can be found in the nRF24L01 datasheet.



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