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**nRF24L01+ Evaluation kit**

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**nRF24L01+-EVKIT**

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**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:
  - “nRF24L01+EC User Guide” document
  - “nRF24L01+ REFMOD” document
  - “nRF24L01+ EVSYSTEM” document
  - “nRF24L01+ Test Setup” document
  - “nRF24L01+ Firmware description” document
  - nRF24L01+ Firmware
  - nRF24L01+EC 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.

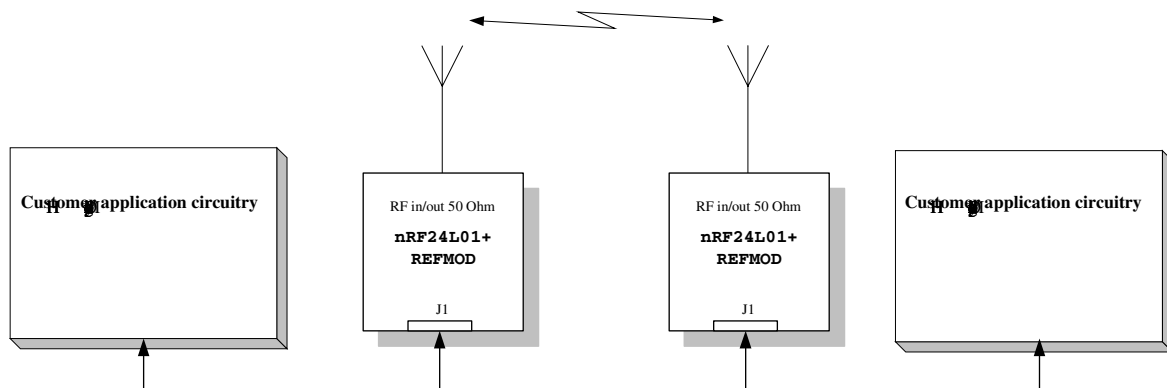


Figure 1 Set-up with the nRF24L01+ REFMOD connected to the customer's application circuitry

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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