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## nRF905 Evaluation Kit

## nRF905-EVKIT

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### INTRODUCTION

The Evaluation Kit for the **nRF905** Single Chip 433/868/915 MHz RF Transceiver has been developed to enable customers to get hands-on experience with the functionality of the device in their applications.

The **nRF905** 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 a **nRF905** wireless communication link.

In the **nRF905** Evaluation Kit two **nRF USB Configuration Boards** are also included. With the **nRF USB Configuration Board**, configuration of **nRF905** and ShockBurst™ communication are easily managed through the **nDP** (Nordic Development Platform) PC software.

Detailed description of the **nRF905-EVBOARD**, the **nRF USB Configuration Board** and suggestions for test benches for evaluation of performance parameters are given in the **nRF905-EVBOARD** documentation.

**nRF905** Evaluation Kits for operation at 433MHz and 868/915MHz are available,

- **nRF905-EVKIT-433**
- **nRF905-EVKIT-868/915**

This document covers both versions.

### GETTING STARTED

The **nRF905** Evaluation Kit contains the following items:

- Two evaluation boards with the **nRF905** transceiver
- Two **nRF USB Configuration Boards** for PC interface
- Two standard male USB A/B cables
- Two flexible ¼ wave monopole antennas
- **nRF905-EVBOARD** documentation
- **nRF905-EVKIT** documentation (this document)
- **nRF905** product specification
- **nDP**: configuration and control software for PC
- Nordic Development Platform User Guide

Combined with the antenna, the **nRF905-EVBOARD** is a complete radio module with a digital interface for connection to application circuitry.



Figure 1 shows a typical set-up with the **nRF905-EVBOARDS** connected to application circuitry in order to develop and debug a complete wireless communication link.

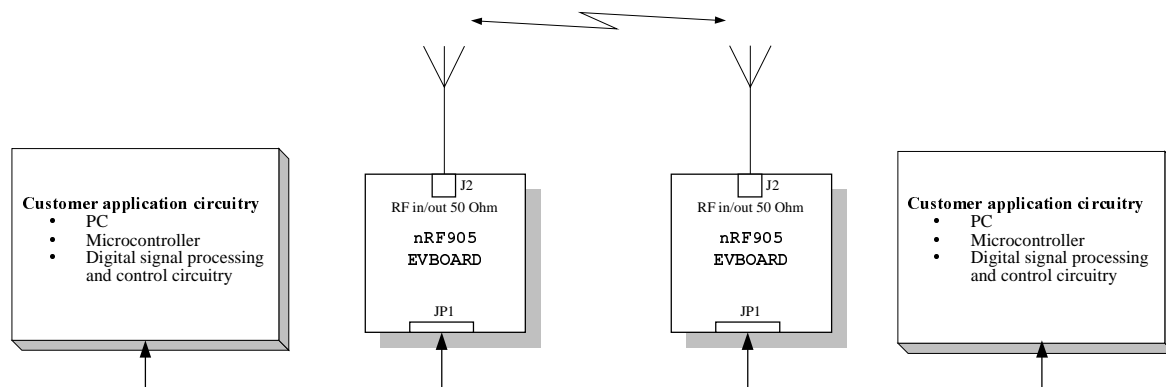


Figure 1 Set-up with the **nRF905-EVBOARDS** connected to application circuitry

The following precautions should be taken when connecting to the **nRF905-EVBOARD**:

- A twisted pair flat cable should be used to connect to header JP1 on the **nRF905-EVBOARD**. The GND-wires in the twisted pair cable must be connected to both the **nRF905-EVBOARD** and the customer's application circuitry board. **The cable length must be kept as short as possible.**
- The power supply wire and the ground wire connected to the power input connector should be twisted together and kept as short as possible.
- Ensure that the peak-to-peak voltage level of the data input and control signals never exceed the **nRF905** device power supply level.

Details regarding digital input/output voltage levels, configuration and timing requirements for control of the **nRF905** device can be found in the **nRF905** product specification.

## COMMUNICATION RANGE DEMO

The **nDP** PC software has an in-built feature for easy range testing between two **nRF905-EVBOARDS**. For details please see the **COMMUNICATION RANGE** chapter in the **nRF905-EVBOARD** documentation.



### DEFINITIONS

<b>Product specification</b>
This Evaluation Kit documentation contains final product specifications. Nordic VLSI ASA reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
<b>Limiting values</b>
Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Specifications sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.
<b>Application information</b>
Where application information is given, it is advisory and does not form part of the specification.

Table 1. Definitions

Nordic VLSI ASA reserves the right to make changes without further notice to the product to improve reliability, function or design. Nordic VLSI does not assume any liability arising out of the application or use of any product or circuits described herein.

### LIFE SUPPORT APPLICATIONS

These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Nordic VLSI ASA customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Nordic VLSI ASA for any damages resulting from such improper use or sale.

Product specification. Revision Date : 30.01.2004.

nRF905 Evaluation Kit order code : 300104-nRF905-EVKIT-433  
300104-nRF905-EVKIT-868/915

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## YOUR NOTES

