

# NORDIC te ch TOUR

*nRF Sniffer for Bluetooth® low energy*



nRF Sniffer for BLE

## Agenda

- Why a BLE sniffer?
- What is nRF Sniffer?
- What can nRF Sniffer do
- What's required
- Demo



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nRF Sniffer for BLE

## Why BLE sniffer?

- A lot is happening on the air – So it helps to see what
- A sniffer allows you to see all the on-air activity – Not just events from the stack
- Significantly simplifies development and troubleshooting
- Commercial sniffers cost \$15,000 and upwards
- There is a need for a low cost tool to sniff packets – nRF Sniffer



Commercial sniffer  
\$30,000



nRF sniffer \$100



nRF Sniffer for BLE

## What is nRF Sniffer

- BLE packet sniffer that runs on nRF51822 EV-KIT
- Nordic software for sniffer
  - Licence free
- UI is Wireshark
  - Powerful protocol analyzer application
  - Allows lots of customization and filtering of packets
  - Licence free
  - Open-source



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## What can nRF Sniffer do?

- Sniffs all activity on a single device
  - Advertising
  - Connection
  - Encrypted connection
- The Single device is a Nordicsemi nRF8001, nRF8002 or nRF51822 (S110) with a master device from any company
- Python based interface to use the sniffer in test infrastructure and production tests
- Limitations
  - Can sniff only one device when the device is in a connection



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## What's required?

- nRF51822 EV-KIT or dongle
- Only runs on Windows 7 & 8
- Nordic nRF Sniffer download
  - [www.nordicsemi.no](http://www.nordicsemi.no)
- Wireshark protocol analyzer
  - [www.wireshark.org](http://www.wireshark.org)



OR



nRF Sniffer.zip



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# nRF Sniffer Demo



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