Quick Start Guide
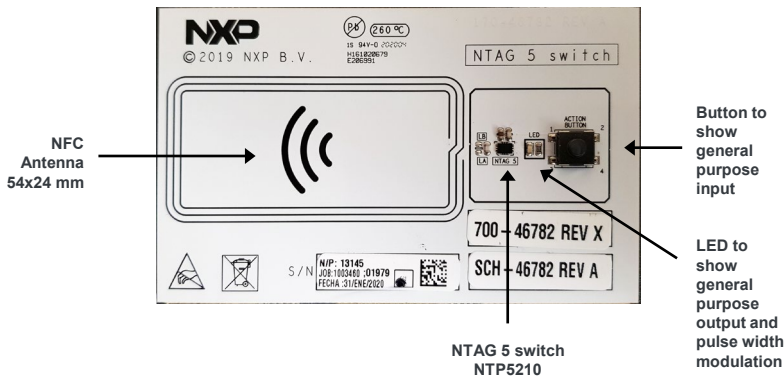
OM2NTA5KIT

Exploring the exclusive features of NTAG 5 switch,
NTAG 5 link and NTAG 5 boost

NXP

GET TO KNOW THE NTAG 5 switch board
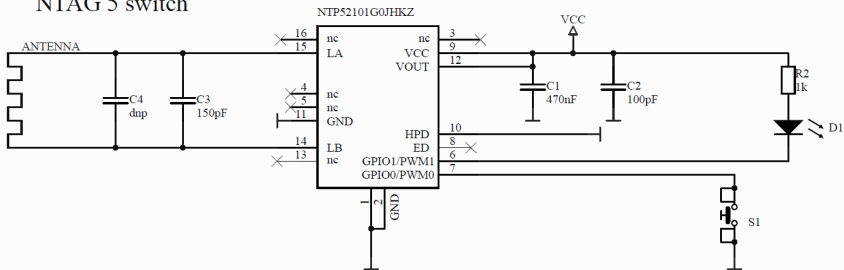

NFC Antenna 54x24 mm

Button to show general purpose input

LED to show general purpose output and pulse width modulation

NTAG 5 switch NTP5210

Front side of NTAG 5 switch demo board

1

NTAG 5 switch board schematics

NTAG 5 switch

NTP52101G0JHKZ

ANTENNA

C4
dnp

C3
150pF

16	nc	
15	LA	
4	nc	
5	nc	
11	GND	
14	LB	
13	nc	

nc 3
VCC 9
VOUT 12

HPD 10
ED 8
GPIO1/PWM1 6
GPIO0/PWM0 7

GND 2

VCC

C1
470nF

C2
100pF

R2
1k

D1

S1

GET TO KNOW THE NTAG 5 link board

I²C 6-axis sensor to show I²C master feature

I²C FRAM to show easy memory extension

LEDs to show regulated energy harvesting

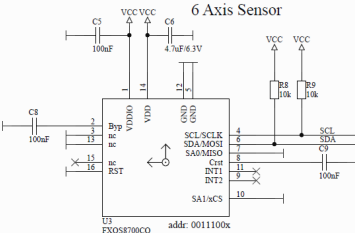NFC Antenna 54x24 mm

NTAG 5 link NTP5332

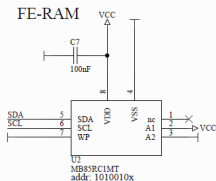**Front side of NTAG 5 link demo board**

NTAG 5 link board schematics

NTAG 5 link
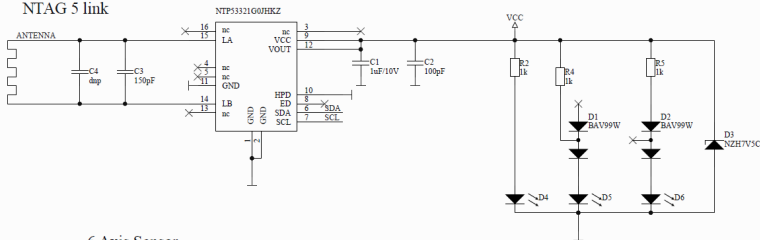
6 Axis Sensor

FE-RAM

GET TO KNOW THE NTAG 5 boost board

NFC Antenna 10x10 mm

Battery supply

USB supply

Select Battery or USB supply

Use hard power down to save energy

NTAG 5 boost NTA5332

LED to show received command
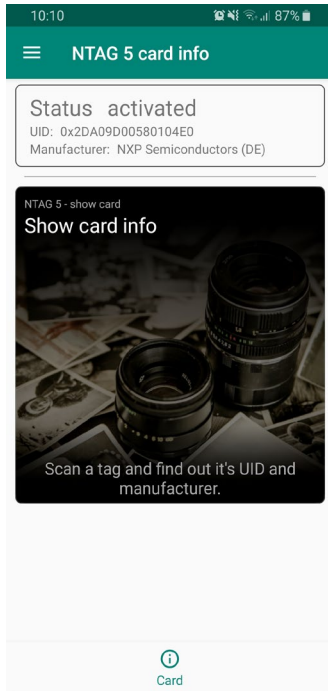
If LED is on, board is ready to use

Front side of NTAG 5 boost demo board

5
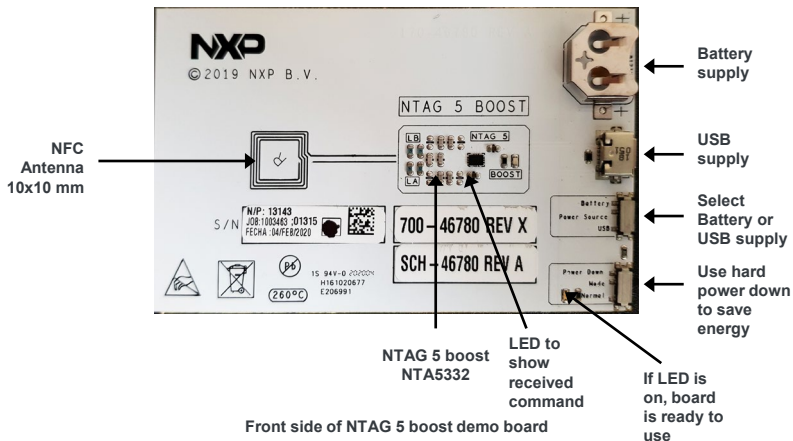
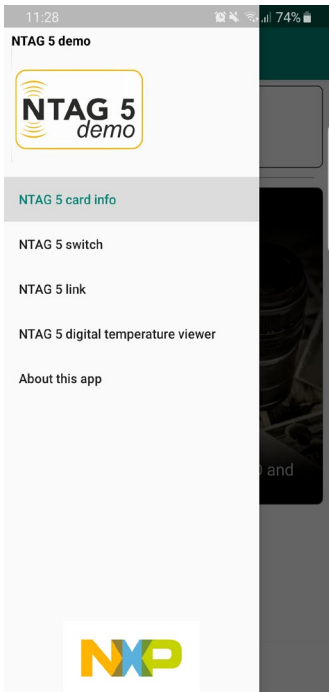# NTAG 5 boost board schematics

NTAG 5 boost
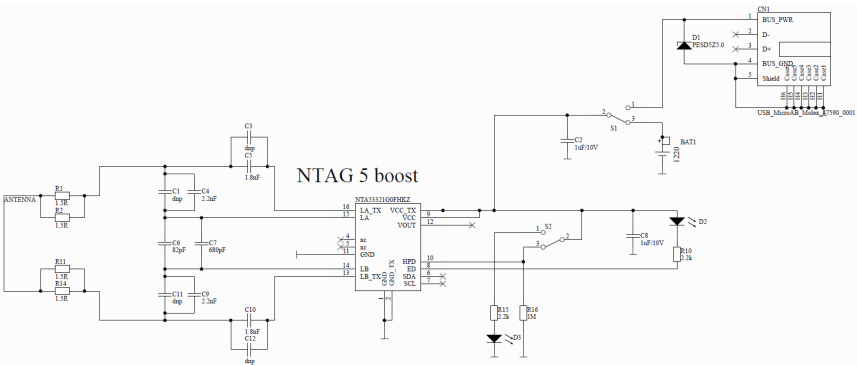
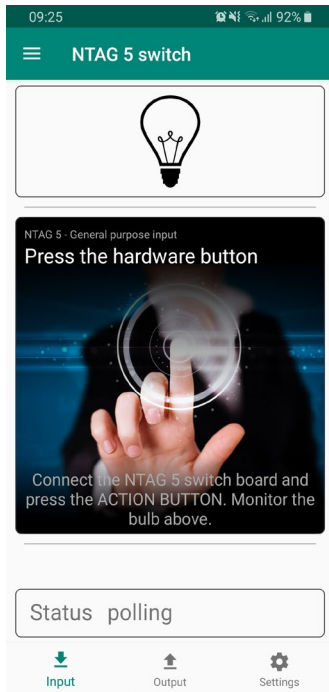**When no board is connected, status switches to "polling"** →

NTAG 5 show card tab

Use side menu to navigate →

NTAG 5 demo navigation
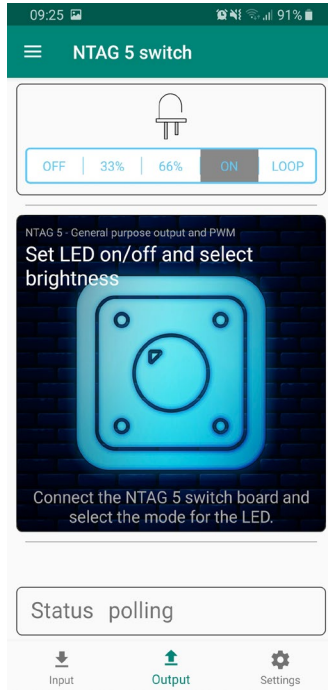
When button is pressed, bulb goes on

When board is connected, status switches to "activated"

Explore GPO and PWM
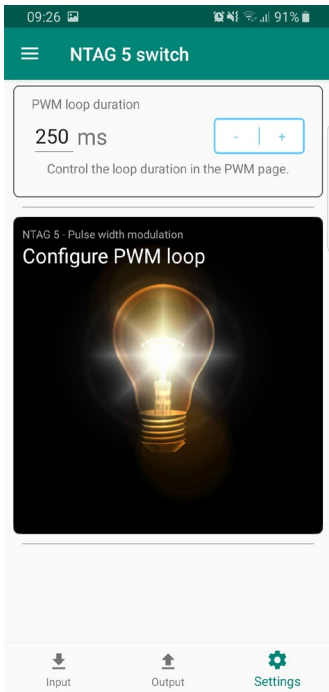
NTAG 5 switch general purpose input

Chang settings of LED brightness

When board is connected, status switches to "activated"

Explore GPIO or change loop speed

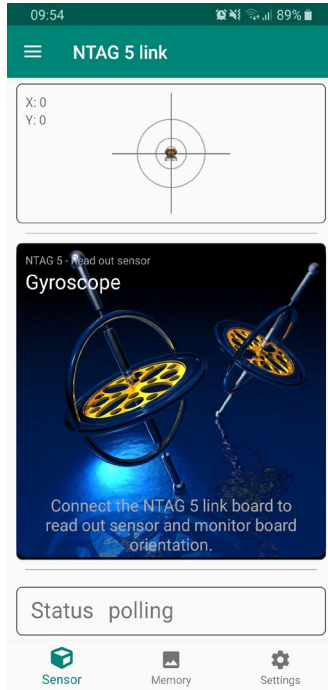**NTAG 5 switch general purpose output and pulse width modulation**

10

Configure how fast brightness changes

Explore GPIO and PWM features

NTAG 5 switch settings

X and Y orientation of 6 axis sensor →

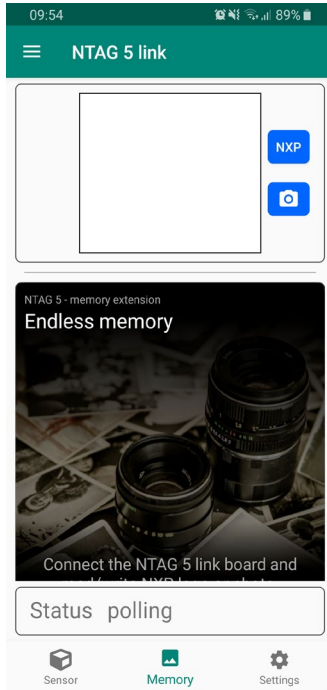**When board is connected, status switches to "activated"** →

Explore memory extension or configure output voltage ←

NTAG 5 link read sensor

Image read from FRAM will be displayed

Write NXP logo or photo from camera to FRAM

When board is connected, status switches to "activated"

Explore sensor tag or configure output voltage

NTAG 5 link extend user memory

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Image read from FRAM will be displayed

Change output voltage. You need to re-connect the board afterwards to make settings

When board is connected, status switches to "activated"

Explore sensor tag or memory extension

NTAG 5 link set output voltage

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NTAG 5 switch FEATURES

- ISO/IEC 15693 compliant
- NFC Forum Type 5 Tag compliant
- General Purpose Input and Output (GPIO)
- Pulse Width Modulation (PWM)
- Regulated Energy Harvesting
- 512 byte user memory
- Up to three configurable memory areas
- 32 or 64-bit password protection
- ECC based reprogrammable originality signature

On top NTAG 5 link FEATURES

- I²C master and slave up to 400 kHz
- 2048 byte user memory
- 256 byte SRAM
- AES mutual authentication

On top NTAG 5 boost FEATURE

- Active Load Modulation

STEP-BY-STEP INSTRUCTIONS

1 Install App

Install NTAG 5 demo app from Google Play Store or Apple App Store

2 Switch on NFC on mobile phone

In the settings menu of your NFC enabled mobile phone

15

STEP-BY-STEP INSTRUCTIONS (cont.)

3 Explore NTAG 5 switch demo board

Make sure status is "activated"

Press button on board to explore GPIO functionality

Select ON/PWM/OFF to explore GPIO and PWM functionality

Change brightness of LED in a loop

4 Explore NTAG 5 link demo board

Make sure status is "activated"

Move board with phone to see X/Y orientation

Write/read photo to/from the FRAM

NOTE: FRAM is not initialized. Writing the NXP logo or a photo to the FRAM should be the first step

Change Energy harvesting voltage

5 Explore read range of boards

Status changes from "polling" to "activated" as soon board is detected

6 Curios? Order our Development board

On NTAG 5 customer development board web page you will find all documentation, source files and the boards itself

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Visit **www.nxp.com/support** for a list of phonenumbers within your region.

WARRANTY

Visit **www.nxp.com/warranty** for complete warranty information.

Get Started

Download installation software and documentation **"Jump Start Your Design"** at **nxp.com/demoboard/OM2NTx5332**

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