# DATASHEET IoT Development Starter Kit

## Part No.: ACIOTDK







### aconno ACNPROG

The aconno ACNPROG USB dongle is the easiest way to program our ACN52832 modules. It features drag & drop programming, easy to use Tag-Connect connector and compatibility with all famous development suites.

#### **Product Overview:**

aconno's ACNPROG is making the programming process simple, efficient, and fast.

It's a compact programmer for our ACN52832 BLE module and any ARM® Cortex™ based microcontroller featuring Tag-Connect. To make the programming process even more comfortable, the ACNPROG will be recognized as an USB-storage device after plugged into your computer. Simply drag your compiled file onto the ACNPROG's storage device and the programming process starts ... easy, fast and without annoying driver issues.

Based on the open source & open hardware project CMSIS-DAP, the ACNPROG offers a vendor independent CoreSight debug interface for ARM<sup>®</sup> 32-bit Cortex<sup>™</sup> microcontrollers over the JTAG / SWD interface.

It also allows you to use debugging functions like stepping, breakpoints, watch points to get rid of bugs in your firmware faster, smarter and simpler than ever before.

#### Key Features:

- USB interface to standard ARM<sup>®</sup> CoreSight<sup>™</sup> Serial Wire Debug Port (SW-DP)
- Powerful NXP microcontroller with 48 MHz clock rate and low power consumption
- Full debug support for ARM<sup>®</sup> Cortex<sup>™</sup> based microcontrollers
- Programming through drag & drop or directly through your programming suite
- No external power supply needed for the programming target, since the programmer offers 3.3V / 50mA power source
- Tag-Connect connector
- Firmware upgradeable
- Available in several funky neon colors
- Quality Made in Germany

#### **Compatible Development environments:**

- KEIL uVision
- OpenOCD
- GNU GDB
- iAR
- mbed.org online compiler





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### aconno ACNPROG

#### Firmware Upgrade:

- 1. Place a common magnet onto the top side of the ACNPROG USB dongle
- 2. Plug the ACNPROG with the magnet on it into an USB Port of an PC/Mac
- 3. A device called "CRP DISABLD" should appear
- 4. Remove the magnet and open the new device "CRP DISABLED" with a file manager
- 5. Delete the file "firmware.bin"
- Copy the new aconno firmware onto the device. It should be named like "ACNPROG\_FW\_VXXX.bin" were "XXX" stands for the firmware version
- 7. When the copy process is finished, disconnect the ACNPROG from the PC/Mac
- 8. Reconnect the ACNPROG and enjoy your upgraded programmer :)

### aconno ACN52832

The ACN52832 is a fully integrated, ultra-low power, Bluetooth Smart (former BLE) module in a small form factor, which features the advanced Nordic Semiconductor nRF52832 SoC.

Its capabilities are tailored for the upcoming demands of sophisticated IoT devices where small size, low power, application performance and radio-range are essential. Unlike many competitors it features a maker-friendly PCB scale package that allows a fast and easy integration without sacrificing access to its advanced peripherals and capabilities.

#### **Product Overview:**

- Based on Nordic Semiconductor's nRF52832 Bluetooth Smart SoC
- aconno's ACN52832 features a large number of GPIOs to max out your options
- excellent RF performance thanks to an on-board antenna
- CE compliant & certified
- To provide quick access to the programming interface of the SoC, the module also features a Tag-Connect connector.

Get started today using the ACNPROG. Go create – the future can't wait.

#### **Key Features:**

- Ultra low power consumption
- 32-bit ARM<sup>®</sup> Cortex<sup>™</sup> M4F high performance 64 MHz core with 512kB Flash / 64 kB RAM
- Two On-board precision crystal clock sources
- Programmable peripherals for CPU-less operation
- SPI / UART / TWI (I2C)
- 200 ksps 12-bit ADC
- Low Power Comparator
- I2S and PDM peripherals for Audio
- Quadrature demodulator
- RGB LED
- -20 dBm to +4 dBm output power
- Maker friendly dimensions
- Temperature Range: -40°C to +85°C









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#### Kit content:

- ACNPROG
- 3x ACN52832

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