

ACD52832

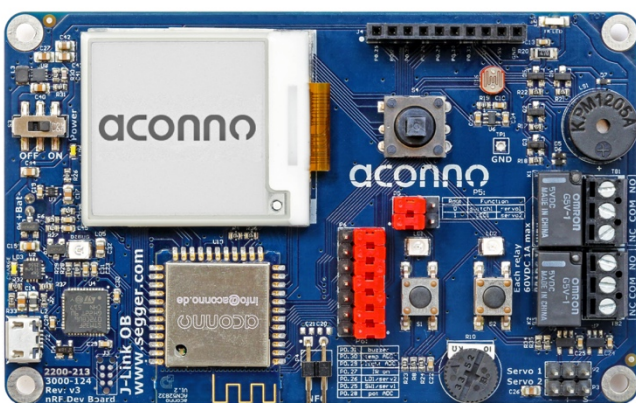
Development Kit for Bluetooth Smart, ANT and 2.4 GHz applications

Product Overview:

The ACD52832 is a single development board kit for Bluetooth Smart, ANT and 2.4 GHz proprietary applications using the aconno ACN52832 module which is based on the highly integrated nRF52832 SoC by Nordic Semiconductor.

The development kit is equipped with a variety of sensors, input devices and a graphical HiRes electronic paper display enabling you to take full advantage of the aconno ACN52832 features and to accelerate development efforts for new highly integrated IoT devices.

To ensure the DK is easy to use, the kit contains a Segger J-Link OB programming and debugging device. It allows the kit to be used as J-Link through a standard USB interface with the Nordic toolchain using Keil, IAR and GCC. Alternatively you can use the mbed online compiler through drag & drop programming. Thus it is possible to program the board without the need for proprietary programming software and devices.



Key Features:

- For the development of smart user interfaces, advanced gesture recognition and gaming applications the ACD52832 is equipped with a ST iNEMO 9-DoF inertial module, which contains a 3D accelerometer, a 3D gyroscope and a 3D magnetometer
- EP Display with 200x200 pixels resolution and 184 dpi pixel density
- Integrated Texas Instruments USB Li-Ion battery charger with up to 0.5A charging current and automatic battery - USB power supply changeover (allows the development of mobile devices)
- Temperature sensor with a temperature range between -40°C and 125°C and $\pm 4K$ accuracy
- Light sensitive sensor
- IR-emitter
- Digital joystick
- Two LEDs
- Two tactile switches
- Potentiometer for ADC values
- Buzzer
- Pin-header with seven I/O -ports
- Two potential free relay outputs
- Two PWM controlled servo outputs

Applications:

- Internet of Things (IoT) – sensors and hubs
- Rapid prototyping
- Desktop peripherals
- Remote controls
- Sports & Medical
- Smarthome sensors
- Beacons
- Toys
- NFC <-> BT tags



Application Code

SoftDevice

nRF52832 SoC

IoT development made easy

The Core of the ACN52832, a nRF52 series SoC (System on Chip) provides an unique software architecture which offers a clean separation between application code and Nordic's embedded protocol stacks (called SoftDevices). This means that the compile, link and run-time dependencies with the protocol stack and associated de-bugging challenges are removed. Application code can thus be developed and compiled independently of the protocol stack. This simplifies overall development efforts and reduces the possibility and complexity of bugs during development.

SoftDevices

The ACN52832 is supported by a range of protocol stacks. These Nordic protocol stacks are known as SoftDevices, they complement the nRF52 Series SoCs. SoftDevices can support Bluetooth Smart, ANT and Bluetooth Smart/ANT combinations. SoftDevices are pre-compiled binary files for nRF52 Series SoCs. They are available from Nordic Semiconductor as downloads. This brings maximum flexibility to application development and allows the latest stack version and associated features to be programmed into the nRF52 Series SoC.

Kit Content

- ACN52832 board
- Micro USB cable