

# BLE-52-NANO

## Fact sheet

### Key features

- Nano Power module based in the Nordic [NRF52](#) master device
- Available interconnections I2C, SPI (3x SPI master/slave with EasyDMA), UART (CTS/RTS with EasyDMA)
- Very low power multiple wireless connections protocols including Bluetooth low energy, ANT and 2.4GHz proprietary
  - Support on-chip for Bluetooth 5
  - Reconfigurable number of wireless connection events
- Baseline timekeeping features:
  - Very low power
  - Counters for hundredths, seconds, minutes, hours, date, month, year, century, and weekday
  - Alarm capability on all counters
  - Programmable output clock generation (32.768 kHz to 1 year)
  - Countdown timer with repeat function
  - Automatic leap year calculation
- ARM® Cortex®-M4 32-bit processor with FPU, 64 MHz
- Extremely flexible power management
  - - Integrated  $\sim 1\Omega$  power switch
  - - System sleep manager for managing host processor wake/sleep states
  - - External reset signal monitor
  - - Reset output generator
  - - Supercapacitor trickle charger with programmable charging current
  - - External interrupt monitor
- Power Supply
  - Battery powered
  - Supply voltage range 1.7 V-3.6 V
  - 10 nA in Deep Sleep Mode
  - Increased Battery lifetime (100 times when compared to System OFF mode)

- Memory
  - 512 kB flash/64 kB RAM
- Dedicated SoftDevice including Nordic's softdevices
  - Complete set of software API tools installed and are fully compatible with Nordic SDK
- Type 2 near field communication (NFC-A) tag with wakeup-on-field and touch to pair capabilities
- 12-bit, 200 ksps ADC - 8 configurable channels with programmable gain
- 64 level comparator
- 15 level low power comparator with wakeup from System OFF mode
- Temperature sensor
- 32 general purpose I/O pins
- 3x 4-channel pulse width modulator (PWM) units with EasyDMA
- Digital microphone interface (PDM)
- External system only needs a Single crystal
- Package delivered in the form of a system in package (SiP)
- Extremely precise current measurements (down to 100 pA) using Keysight CX3322A Device Current Waveform Analyzer