

ANT_S312_nrf52810_6.1.1 release notes

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ANT_S312_nrf52810_6.1.1

The ANT_S312_nrf52810_6.1.1 SoftDevice for the **nRF52810 platform** is based upon the ANT_S212_nrf52_6.1.1 (ANT) SoftDevice and S112 v6.1.1 (BLE) SoftDevice combined.

Notes

- This the first production release of the S312.

SoftDevice Properties

- This version of the SoftDevice contains the Master Boot Record (MBR) version 2.4.1 (DRGN-10680). This MBR version is compatible with previous MBR versions.
- The combined MBR and SoftDevice memory requirements for this version is as follows:
 - Flash: **147kB** (0x24000 bytes)
 - RAM: **4.75kB** (0x1300 bytes) (minimum required memory - actual requirements are dependent upon the configuration chosen at `sd_ble_enable()` time)
- The Firmware ID of this SoftDevice is 0xBB

Limitations

- **SoftDevice**
 - If Radio Notifications are enabled, flash write and flash erase operations initiated through the SoftDevice API will be notified to the application as Radio Events (FORT-809).
 - Synthesized low frequency clock source is not tested or intended for use with the ANT or BLE stack.
 - Internal RC oscillator clock source is not tested or intended for use with the ANT stack.
 - Applications must not modify the `SEVONPEND` flag in the `SCR` register when running in priority levels higher than 6 (priority level numerical values lower than 6) as this can lead to undefined behavior.
 - Flash write operations may exceed the timeout provided when performed with certain protocol operations (e.g. ANT Continuous Scan).
- **GATT**
 - To conform to the Bluetooth Core Specification v 5.0, there shall be no secondary service that is not referenced somehow by a primary service. The SoftDevice does not enforce this (DRGN-906).

Known Issues

- **SoftDevice**
 - `sd_ble_gap_device_name_set()` may return `NRF_ERROR_INTERNAL` instead of `NRF_ERROR_NO_MEM` if the allocated space for the device name is too small. A workaround is to allocate enough space for the device name before calling `sd_ble_gap_device_name_set()` (DRGN-10195).
 - If the application requests an earliest possible Radio Timeslot and the timeslot is blocked, the SoftDevice will repeat the same request until it times out, thereby blocking

the main context and the lower application interrupt priority levels. A workaround is to increase the timeout of the Radio Timeslot request to make it able to fit after the event that is blocking the request (DRGN-10402).

- The SoftDevice will generate a resolvable address for the TargetA field in directed advertisements if the target device address is in the device identity list with a non-zero IRK, even if privacy is not enabled and the local device address is set to a public address. This can make devices certified for Bluetooth versions older than 4.2 ignore the advertising packets. This issue is present in SoftDevice versions 3.0.0 and later. A workaround is to set the IRK to zero or to remove the device address from the device identity list (DRGN-10659).