GR5526 Software Development Kit Release Note

Version: 1.0.3

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1 SDK V1.0.3

The GR5526 Software Development Kit (SDK) V1.0.3 is the second release for GR5526 System-on-Chips (SoCs).

1.1 Release Overview

1.1.1 Release Package

Table 1-1 Release package

Folder	Description
build	Link-related tools and scripts
components	Bluetooth LE API header, library, and source files
documentation	API reference For more documents, visit GR5526 Series: Documentation.
drivers	Driver interface source code and header files
external	Third-party library source code and header files
platform	Link-related files
projects	Example project files and source code

1.1.2 Notices

The whole SDK has been comprehensively tested based on the following environments.

Table 1-2 Test environment details

Item	Name & Version
IDE	Keil MDK-ARM Version 5.20 + IAR ANSI C/C++ Compile V9.40.1/W32 + for ARM GNU Arm Embedded Toolchain 10-2020-q4-major
SoC	GR5526 series: GR5526VGBIP, GR5526VGBI, GR5526RGNIP, and GR5526RGNI
Platform	Windows 7/10
Tools	• GProgrammer V1.2.41 • GRUart V2.1 • GRToolbox V2.16 • GRPLT Lite Config Tool V1.1.6 • GRDirect Test Mode Tool V1.5.2 • GRPLT V1.5.0.0.6

1.1.3 Limitations

- The GR5526 SDK might not work in versions earlier than Keil V5.20.

- Currently, there may be some problems with SEGGER J-Link and Keil.

  Visit http://www.segger.com/IDE_Integration_Keil.html#knownproblems for more details.

2 Revision History

2.1 GR5526 SDK V1.0.2

1. Initial release.

2.2 GR5526 SDK V1.0.3

2.2.1 System

1. Optimized pwr_mgmt_ultra_sleep implementation.

2. Resolved firmware upgrade failures during encryption and signature verification.

3. Resolved exceptions caused by .sct files in encrypted scenarios.

4. Resolved application start failures caused by occupied crystal oscillator pins.

5. Improved the slow clock calibration strategy.

6. Upgraded the version of IAR IDE (V9.40.1 and later versions required).

2.2.2 Peripheral

1. Fixed bugs for the LVGL example project.

2. Added the LVGL 831 watch demo project.

3. Optimized the I2C and ADC drivers.

4. Disabled unused peripheral clocks to reduce power consumption.

5. Added the X-Flash ID read API.

6. Resolved app_rtc driver time hopping.

7. Resolved the exception that ITM printing did not work.

8. Optimized the timing of Flash instructions used in QSPI memory mapped mode.

2.2.3 Bluetooth

1. Fixed the disconnection issues in Bluetooth LE multi-connection scenarios in sleep status.

2. Resolved possible memory leak in extended advertising scenarios.

3. Resolved Bluetooth LE TX/RX exceptions in certain scenarios.

4. Optimized the MAC address de-duplication algorithm.