Secure Digital (SD) Card :: SD Card

The Secure Digital (SD) card is a memory card that is specifically designed to meet the security, capacity, performance, and environment requirements inherent in newly emerging audio and video consumer electronic devices.

This driver supports FAT-formatted SD cards up to 32 GB and fulfills the required interface for integration with the FatFS library.

The software is architected with long-term maintainability, portability across MCU platforms, and adherence to high software quality standards as core design principles.

✅ Layered architecture with clear HAL abstraction
✅ Conforms to ISO C99 standard
✅ Portable across multiple MCU platforms
✅ Supports both RTOS and bare-metal environments
✅ CMake build system for scalable integration
✅ Seamless integration with GCC toolchain
✅ Statically analyzed for MISRA, CERT, and CWE compliance
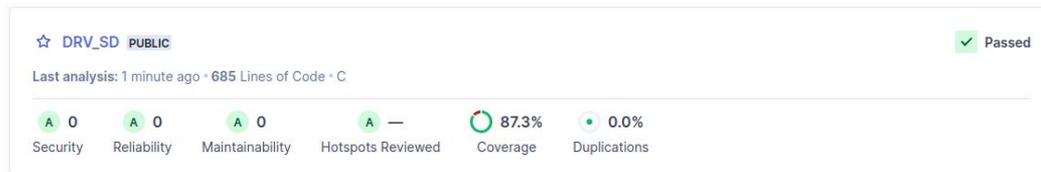
Initialization Interface

```
sd_result_t sd_init( sd_handle_t*, sd_attr_t )
```

Data Retrieval Interface

```
sd_result_t sd_get_device_info( sd_handle_t*, ... )
sd_result_t sd_read_block( sd_handle_t*, ... )
sd_result_t sd_read_block_multi( sd_handle_t*, ... )
```

Write Interface

```
sd_result_t sd_write_block( sd_handle_t*, ... )
sd_result_t sd_write_block_multi( sd_handle_t*, ... )
sd_result_t sd_erase_block( sd_handle_t*, ... )
sd_result_t sd_stop_transfer( sd_handle_t* )
```

☆ DRV_SD PUBLIC   ✓ Passed

Last analysis: 1 minute ago • 685 Lines of Code • C

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Security	Reliability	Maintainability	Hotspots Reviewed	Coverage	Duplications

Communication Interface:
SPI