

u-blox NEO-6 :: GPS Receiver

The u-blox NEO-6 module series is a family of stand-alone GPS receivers featuring the high performance u-blox 6 positioning engine. These flexible and cost effective receivers offer numerous connectivity options in a miniature 16 x 12.2 x 2.4 mm package. Their compact architecture and power and memory options make NEO-6 modules ideal for battery operated mobile devices with very strict cost and space constraints.

This driver provides structured NMEA sentence parsing with a clean hardware abstraction layer, ensuring deterministic execution and reliable integration into commercial and industrial embedded applications.

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

```
neo6_result_t neo6_init( neo6_handle_t*, neo6_attr_t )
```

Data Retrieval Interface

```
neo6_result_t neo6_gga( neo6_handle_t*, neo6_gga_data_t*, uint32_t )
```

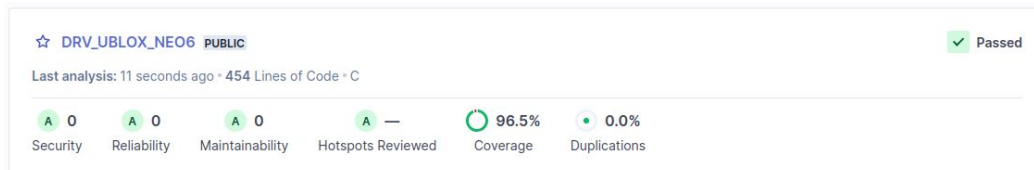
```
neo6_result_t neo6_gll( neo6_handle_t*, neo6_gll_data_t*, uint32_t )
```

```
neo6_result_t neo6_gsa( neo6_handle_t*, neo6_gsa_data_t*, uint32_t )
```

```
neo6_result_t neo6_gsv( neo6_handle_t*, neo6_gsv_data_t*, uint32_t )
```

```
neo6_result_t neo6_rmc( neo6_handle_t*, neo6_rmc_data_t*, uint32_t )
```

```
neo6_result_t neo6_vtg( neo6_handle_t*, neo6_vtg_data_t*, uint32_t )
```



Communication Interface:

UART