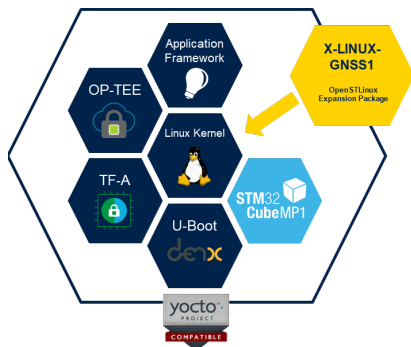


STM32 MPU OpenSTLinux software expansion package for GNSS-based applications



Features

- Standalone applications to read the NMEA data over UART and I²C
- Complete software to build applications on Linux using [Teseo-LIV3F](#) GNSS module
- Middleware for the NMEA protocol
- POSIX thread task scheduling to ensure better asynchronous message parsing
- Easy portability across different Linux platforms
- Application example to retrieve and parse GNSS data and send them to [DSH-ASSETTRACKING](#) for live tracking
- Python example to read the NMEA data over UART

Description

X-LINUX-GNSS1 is an STM32 MPU OpenSTLinux software expansion package that runs on the ARM[®] Cortex[®]-A7-based core of the STM32MP1 microprocessor on the STM32MP157F-DK2 discovery kit to demonstrate GNSS-based applications.

X-LINUX-GNSS1 includes user space application, a device tree for the [Teseo-LIV3F](#) global navigation satellite system (GNSS) device, a library for NMEA protocol support and POSIX thread for task scheduling to ensure better asynchronous message parsing.

The software contains various application modules to retrieve the NMEA GNSS data and upload it to [DSH-ASSETTRACKING](#).

The source code can be ported to any Linux platform.

| Product summary | |
|--|--|
| STM32 MPU OpenSTLinux software expansion package for GNSS-based applications | X-LINUX-GNSS1 |
| GNSS expansion board based on Teseo-LIV3F module for STM32 Nucleo | X-NUCLEO-GNSS1A1 |
| Tiny GNSS module | Teseo-LIV3F |
| Discovery kit with STM32MP157F MPU | STM32MP157F-DK2 |
| Cloud Amazon-based web application for asset tracking | DSH-ASSETTRACKING |
| Applications | Asset Tracking Smart City/Smart Farming |

1 License information

X-LINUX-GNSS1 is delivered under the Mix Ultimate Liberty+OSS+3rd-party V1 software license agreement (SLA0048).

1.1 Software component license agreements

The software components provided in this package come with different license schemes. Refer to wiki.st.com/stm32mpu/wiki/OpenSTLinux_licenses for details.

Revision history

Table 1. Document revision history

| Date | Revision | Changes |
|-------------|----------|------------------|
| 23-Jul-2021 | 1 | Initial release. |

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