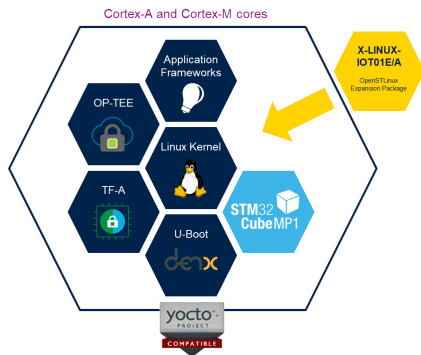


STM32 MPU OpenSTLinux software expansion package for X-STM32MP-IOT01E and X-STM32MP-IOT01A



Features

- Linux user space driver for [SPIRIT1](#)
- Peer-to-peer connectivity between the [STM32MP157F-DK2](#) discovery kit and the [SPIRIT1](#)-based sensor node
- Integration with the asset tracking dashboard
- Sample application available for the [X-STM32MP-IOT01E](#) and [X-STM32MP-IOT01A](#) expansion board for the [STM32MP157F-DK2](#) discovery kit
- Complete source code is provided for development on the Yocto-based OpenSTLinux platform
- Meta-layer for integration with ST Yocto distribution package

Description

[X-LINUX-IOT01E/A](#) is an STM32 MPU OpenSTLinux software expansion package, which runs on the Arm® Cortex® A7-based core of the [STM32MP1](#) microprocessor.

In the [STM32MP157F-DK2](#) discovery kit, it demonstrates the [SPIRIT1](#) and [LSM6DSOX](#)-based applications, using the [X-STM32MP-IOT01E](#) and [X-STM32MP-IOT01A](#) hardware expansion boards.

The [X-LINUX-IOT01E/A](#) includes a user-mode Linux driver for the [SPIRIT1](#) module and the Python-based application accessing the [LSM6DSOX](#) via an open GTK-based GUI.

[SPIRIT1](#) is a low data rate, low-power Sub 1GHz transceiver, intended for RF wireless applications in the sub-1 GHz band.

[LSM6DSOX](#) is a system-in-package that features a 3-axis digital accelerometer and a 3-axis digital gyroscope.

An example application is included in the software package.

The source code can be imported to any Linux platform.

Product summary	
STM32 MPU OpenSTLinux software expansion package for X-STM32MP-IOT01A	X-LINUX-IOT01E/A
STM32MP157FDK2 expansion board based on SPIRIT1 and LSM6DSOX	X-STM32MP-IOT01E/X-STM32MP-IOT01A
Low data rate, low power Sub 1GHz transceiver	SPIRIT1
iNEMO inertial module with Machine Learning Core, Finite State Machine and advanced Digital Functions	LSM6DSOX
Discovery kit with STM32MP157F MPU	STM32MP157F-DK2
Application	Edge Processing/ Motion Sensing

Revision history

Table 1. Document revision history

Date	Revision	Changes
17-Jun-2022	1	Initial release.
22-Jun-2022	2	Updated cover page image.
14-Dec-2022	3	Added X-STM32MP-IOT01E

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