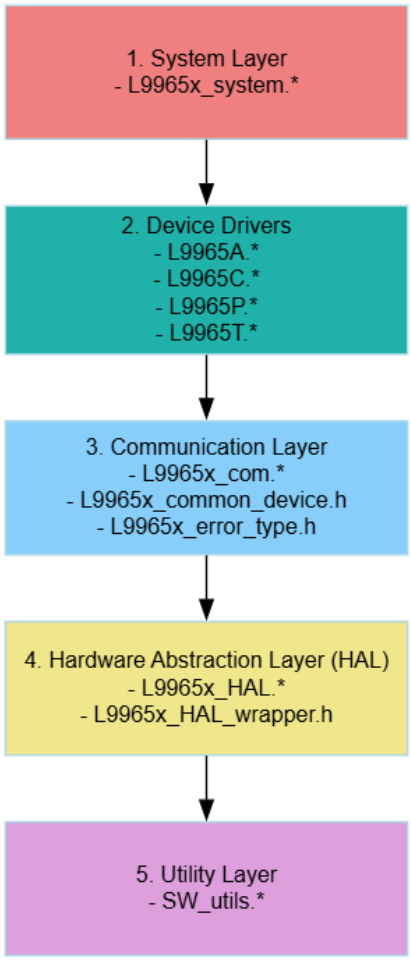
STSW-L9965FW

Data brief

L9965x/L99BM2x chipset firmware drivers



Product status link
STSW-L9965FW

Features

- Complete C firmware driver stack for L9965/L99BM2 family devices
- Unified SPI/VIF communication layer with addressing, mailbox handling, and CRC-checked transfers (MCU/L99xxT)
- Flexible topology management: standalone, single daisy chain, dual ring, and dual access chains
- Cell monitoring support: cell voltages, busbar, VBS, NTC GPIOs, die temperature and cell balancing control (L9965A/L99BM218), instantaneous and Coulomb counter currents, AIN voltage, gate configuration, ADC diagnostics (L9965C/L99BM2C), Pyro-fuse driver management (L9965P/L99BM2P)
- Communication management: **cyclic wake-up modes, error/status masks, FIFO frame handling, FAULTN monitoring** (L9965T/L99BM2T)
- L9965x_HAL and MCU-dependent HAL wrapper layer that includes reference implementations for STM32L476RG and SPC582B60E1
  - Allows the middleware to be easily ported to other MCUs by reimplementing only the wrapper functions
- **System level initialization and power management**
- Integrated **Doxygen HTML documentation** with searchable API reference, file hierarchy, and cross-references

Description

The L9965/L99BM2 chipset firmware drivers package provides a complete, production-oriented software stack to control and monitor ST's L9965x/L99BM2 family. The drivers implement device register access, high-level configuration APIs, advanced diagnostics, and flexible topology management (standalone, daisy-chain, dual ring/dual access).

A hardware abstraction layer and MCU-dependent wrapper isolate the core logic from the microcontroller, enabling reuse across platforms.

The package is fully documented with interactive **Doxygen HTML** pages covering APIs, data structures, and module relationships.

1 Supported MCU

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Table 1. Supported MCU names

Development board	Description
STM32L476RG	Ultralow power with FPU Arm Cortex®-M4 MCU 80 MHz with 1 Mbyte of flash memory
SPC582B60E1	High-performance 32-bit power architecture e200z2 single core MCU for automotive general-purpose applications, 80 MHz, 1088 KB flash memory

2 Supported DEVICES

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Table 2. Supported L9965x family devices

Device	Description
L9965A/L99BM218	Cell monitor IC
L9965C/L99BM2C	Pack monitor IC
L9965T/L99BM2T	SPI to VIF transceiver
L9965P/L99BM2P	Pyro-fuse driver

Revision history

Table 3. **Document revision history**

Date	Version	Changes
25-May-2026	1	Initial release.

Contents

List of tables

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