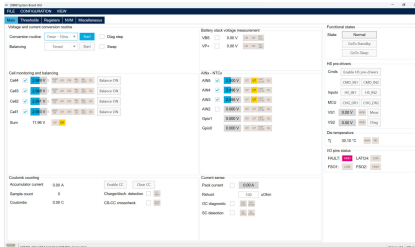


L9988 promo GUI



Product status link

[STSW-L9988GUI](#)

Features

- PC graphical user interface for **L9988**
- Intuitive, tab-based interface for configuration and monitoring
- **Voltage and current monitoring** for cells, NTCs, battery stack and pack current
- **Coulomb counting** and cell balancing control (timed or PWM mode)
- **Functional State Machine control** (e.g. transitions to Standby and Sleep)
- **HS MOSFET pre-driver control and diagnostics** (VS1/VS2 monitoring)
- **Diagnostic and safety monitoring** with error flags and status pins (FAULT, LATCH, FSO1, FSO2)
- Threshold and filter time configuration through **Thresholds** tab
- Direct **RAM and NVM register map access** (read/write, failure flag highlighting)
- **NVM download/upload** with write counter monitoring
- Configuration of **power supplies** (boost pre-regulator, Standby LDO4 3.3 V / 5 V)
- **GPIO configuration** (mode, level, pull-up/pull-down) and SPI error flags display
- Periodic diagnostic refresh with **selectable registers and period**
- **Communication history viewer** for GUI-MCU traffic (incoming/outgoing messages)
- **Script editor** with syntax highlighting, command library and syntax blocks (loops, conditions, delays)
- Support for **offline command execution** in MCU RAM for precise timing
- GUI configuration auto-save (interface selection and periodic readout settings)

Description

STSW-L9988 is a PC software package for the evaluation and control of the **L9988 system board**.

Through an intuitive GUI, the user can configure and monitor the device either via a dedicated application interface or directly via the register map view.

The main window provides dedicated tabs to:

- Configure and monitor voltage and current conversion routines, Coulomb counting and cell balancing
- Control the functional state machine and HS pre-drivers, while visualizing key diagnostic information
- Adjust thresholds, filter times and other configuration parameters
- Access and edit RAM and NVM registers, including failure bit indication

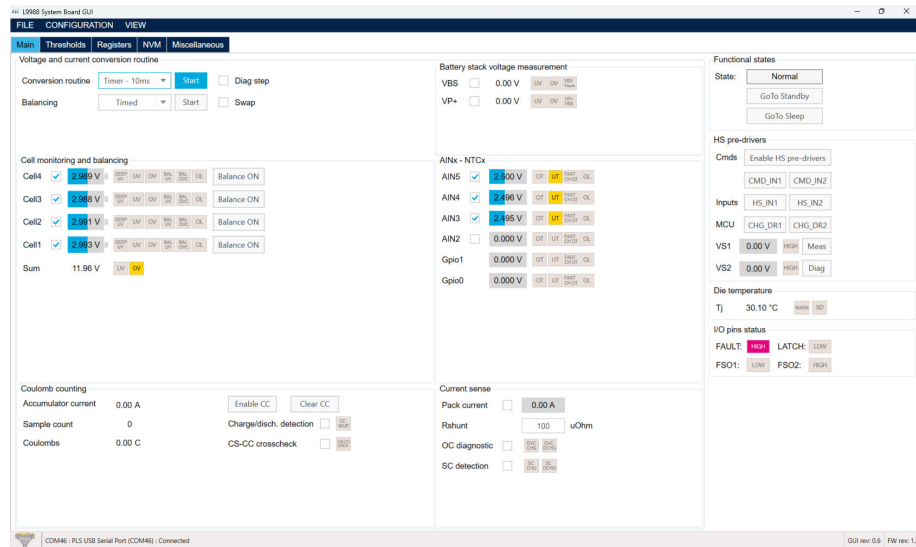
Additional windows extend the GUI functionality:

- A **register selection window** for periodic readout of user-selected device registers
- A **communication interface selector** to choose the link between PC and MCU (e.g. COM port, Bluetooth)
- A **communication history form** to inspect recent communication messages between GUI and MCU
- A powerful **script editor** that enables users to build and execute command sequences, automate repetitive tasks and evaluate MCU responses, with optional offline execution for accurate and fast timing.

The GUI also supports automatic saving and restoring of the communication and diagnostic refresh configuration, simplifying repeated evaluation sessions of the L9988 system board.

1 STSW-L9988GUI overview

Figure 1. L9988GUI system board Gui



The GUI is organized into multiple tabs, providing quick access to all key functions:

Table 1. Tab descriptions

Tab name	Description
Main tab	The Main tab controls voltage and current conversion routines, Coulomb counting and cell balancing, as well as the L9988 functional state machine. It also manages HS MOSFET pre-drivers and displays diagnostic information such as junction temperature and FAULT/LATCH/FSO pin levels.
Thresholds tab	The Thresholds tab allows configuration of thresholds, filter times and other protection or monitoring parameters via sliders or direct numeric entry.
Registers tab	The Registers tab offers a detailed RAM register view with bit-level editing, read/write functions and visual indication of modified or failure bits.
NVM tab	The NVM tab manages NVM registers, with commands to download data from NVM to local registers and upload configuration back to NVM sectors, including a counter of NVM write operations.
Miscellaneous tab	The Miscellaneous tab provides access to power supply controls (boost pre-regulator, Standby LDO4 voltage selection), GPIO mode and level configuration, internal pull-up/pull-down settings and SPI error flags.

Revision history

Table 2. Document revision history

Date	Version	Changes
16-Jun-2026	1	Initial release.



Contents

1	STSW-L9988GUI overview	3
	Revision history	4

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