

neoVI Fire 2

Modern vehicle architectures are expanding to include Ethernet and CAN FD in addition to existing CAN and LIN networks. The neoVI FIRE 2 provides Ethernet, eight channels of CAN (including CAN FD) and two channels of LIN in one tool. All channels run simultaneously and are time-stamped in hardware.

Features

- 8x DW CAN / CAN FD channels
- 4x software enabled CAN termination
- 2x LIN channels
- 1x DoIP activation line
- 2x Gigabit Ethernet (1000BASE-T) for use with DoIP, XCPoE and more
- 10x Programmable tri-color LEDs
- 2x full-size SD cards for up to 2 terabytes of storage with support for SD 3.0 with 800 Mbps logging performance
- Real Time Clock for hardware timestamping of all messages and backup at 25ns
- Ethernet as the PC interface
- Membrane LEDs to show link, error, and activity status
- Membrane Buttons to control trigger data logger
- Internal extended temperature battery for safe shutdown
- Vehicle battery level wakeup
- Buzzer

8x CAN FD, 2x LIN, Ethernet:DoIP/XCP



Applications

- Standalone data logger
- Standalone ECU or vehicle simulator
- In-vehicle data acquisition system
- Captive test fleet data collection
- Fleet management
- Vehicle interface with J2534 and RP1210



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Standalone Logging, Scripting, and Simulation

In addition to working as a PC interface, the neoVI Fire 2 can operate in standalone mode. It can run real-time scripts, log data to two removable full-size SD cards, and simulate ECUs and gateways. With these features, it is also possible to run a script to reflash ECUs using data from the SD card.

The neoVI Fire 2 is capable of logging to two full-size SD cards, using real-time, fail-safe FAT32 storage for reliability and PC compatibility.

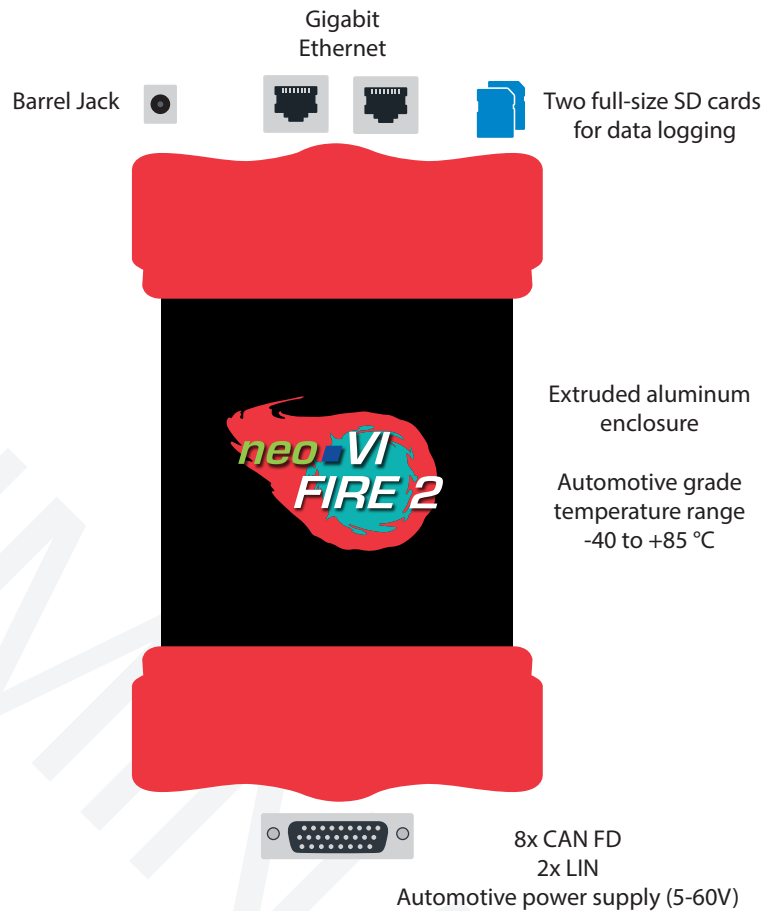
The neoVI Fire 2 also has a real-time clock for hardware timestamping of all messages. A robust power management system automatically powers down the neoVI Fire 2 and it wakes up again based on network activity or the connection of a PC.

The Power of Scripting – CoreMini

If you need to support a proprietary protocol, set up a simulation to run in parallel with the data logger, or any other custom action, the system offers a scripting environment for you to expand the base functionality to fit your unique needs. This makes the entire system very flexible and adaptable.

HD26 Pinout

1	NC	10	GND	19	VBAT
2	DW CAN 4 L	11	NC	20	NC
3	DW CAN 5 L	12	DW CAN 4 H	21	DW CAN 7 L
4	DW CAN 1 L	13	DW CAN 5 H	22	LIN 01 / ISO K 01
5	DW CAN 8 L	14	DW CAN 1 H	23	LIN 02
6	DW CAN 2 L	15	DW CAN 8 H	24	EXT WAKE
7	DW CAN 3 L	16	DW CAN 2 H	25	ETH 01 ACTIVATE
8	DW CAN 6 L	17	DW CAN 3 H	26	DW CAN 7 H
9	NC	18	DW CAN 6 H		



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Protocol Support

- OBD
- J1939: Includes J1939 DBC, BAM, RTS/CTS
- UDS (ISO14229):
 - Services include \$19, \$22, \$23, \$2A, \$2C
 - DBC, A2L (ASAP2 File), GDY, MDX, ODX support
- CCP: Includes A2L (ASAP2 file) and ROB support
- XCP: Includes A2L (ASAP2 file) and ROB support

Networks / Inputs

- 2-8x Dual wire CAN (all baud rates supported)
- 2 LIN
- 2 Gigabit Ethernet (1000BASE-T)

Device Specifications

- Low power consumption
- Power supply: 5-60V operation
- LEDs: 10 programmable tri-color LEDs
- 2 LEDs for legacy status; 2 user buttons
- Temperature range: -40°C to +85°C
- On-board UPS power supply for safe shutdown of data logger
- Dimensions: 13.60cm by 11.22cm by 3.97cm
- SD card: 2 card slot support for up to 2 TB of storage; card formatted using FAT32 for PC compatibility
- DAQ Ethernet
- Vehicle connectors: 26-pin male HD D-sub
- One-year limited warranty
- Field-upgradeable flash firmware
- Standalone mode, including scripting, receive messages, transmit messages, expressions, I/O and transport layers
- J2534 and RP1210 A/B compatible for CAN / ISO15765-2:2016 (CAN FD)
- Battery-backed real-time clock (RTC)

Timing Specifications

- 64-bit timestamping to an accuracy of 25 nanoseconds on all networks
- Simultaneous operation on all CAN/LIN networks
- Transmit message double-buffering on all networks, allowing back-to-back message transmission

Network Specifications – CAN

- 8 x ISO CAN FD channels
- CAN 2.0B compatible for all CAN networks
- 2-8 dedicated ISO11898 Dual Wire CAN FD physical layers (TJA1043)
- Up to 1 Mb/s software-selectable baud rate for arbitration phase (auto baud capable)
- Up to 8 Mb/s software-selectable baud rate for data phase (auto baud capable)
- Listen-only mode support

Network Specifications – LIN

- Up to 2x LIN (Local Interconnect Network)
- Full support for LIN 1.X, 2.X and J2602
- LIN J2602 / 2.X compatible physical layer
- Software-enabled 1K LIN Master Resistor per channel
- LIN Bus Monitor Mode identifies errors: Sync Break Error State and Length, Sync Wave Error, Message ID parity, TFrameMax/Slave Not Responding, Checksum Error and Transmit Bit Errors
- LIN Bus Master Mode operates at same time as LIN Bus Monitor
- LIN Bus Slave simulation, with or without an LDF file
- LIN Bus hardware schedule table with support for LIN diagnostics
- Initialization Waveforms, including Fast Init, Five Baud, and Custom
- Software-selectable baud rate

Ordering Information

Part Number	Description
NEOVI-FIRE2	neoVI FIRE 2 with Vehicle Spy Trial - 8 CAN/CAN FD channel with two software enable CAN termination

