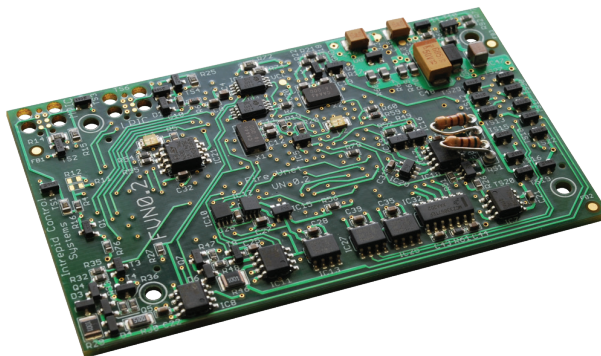


FIRE VNET EP Module

Add 8x CAN, 5x LIN Functionality to neoVI PLASMA or neoVI ION

The FIRE VNET EP Module is specially designed to provide the functionality of a neoVI FIRE network adaptor within a neoVI PLASMA or neoVI ION. The FIRE VNET EP can occupy any or all of the three VNET slots within a neoVI PLASMA or the two slots within a neoVI ION.



Fully Isolated Network Adaptor with 8x CAN, 5x LIN – and much more!

The FIRE VNET provides maximum performance and channel count. One FIRE VNET has eight CAN channels and five LIN channels. Virtually every other common type of automotive network is supported in a single FIRE VNET as well, including lower speed and legacy buses such as SWCAN (single-wire), LSFT CAN (low speed fault tolerant), ISO 9141, and K-Line.

Install Up to THREE VNETs into ONE PLASMA (or TWO VNETs into ONE ION)

If you need more channels, or different channels, just install another VNET. You can mix and match up to three VNETs in a single neoVI PLASMA or up to two VNETs in a single neoVI ION. (Both devices must contain at least one FIRE VNET. The FIRE VNET is compatible with all other VNETs.) Example neoVI PLASMA configurations include:

- 24 x CAN and 15 x LIN (3 FIRE VNETs)
- 8 x CAN and 1 x FlexRay Network (1 FIRE VNET + 1 FlexRay VNET)
- 8 x CAN and 1 x MOST Network (1 FIRE VNET + 1 MOST VNET)
- 8 x CAN and 7 x Differential Inputs (1 FIRE VNET 1 AIN VNET)

VNETs Operate Independently or Together

Although they are independent, they record data with a single time stamp onto the neoVI PLASMA/ION's SD cards.

VNETs Operate via USB or Wireless Interface

All VNETs are accessible via USB, similar to our popular neoVI network adaptors. They also are accessible and programmable via the neoVI PLASMA/ION's wireless interfaces. This makes the neoVI PLASMA/ION ideal whether you're data logging in a remote area, on the test track, or running a test stand with multiple ECUs.

neoVI DLL, J2534, Linux, and RP1210 Support

In case you prefer to write your own software, the FIRE VNET supports three open APIs:

- neoVI DLL API
- SAE J2534 API
- TMC RP1210 A/B API

The neoVI DLL API includes examples for all popular development environments including C#, VB, NET, VB6, Delphi, C++ Builder, Visual C++, LabVIEW and LabWindows. Also, we have examples and drivers for Linux.

Rev.09292015



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FIRE VNET EP Module

Hardware-in-the-Loop Real-Time Performance

The FIRE VNET EP includes a real-time scripting engine that is used to perform real-time messaging. For example, someone creating an application can load a script into the hardware and interface with the script variables allowing microsecond measurement and control. Also Vehicle Spy, through its Hardware Acceleration feature, can send real-time functions to the device such as periodic messaging, replay, or scripting.

Vehicle Spy Application Software

Our Vehicle Spy software fully supports the FIRE VNET. You can use Vehicle Spy to monitor and transmit on all FIRE VNET EP networks simultaneously. The Vehicle Spy license from the neoVI PLASMA/ION is required to configure stand-alone functions. Take advantage of the powerful VehicleScape DAQ interface to quickly load databases, select signals, and then auto-generate complex scripts. Send, start and stop scripts via USB or the Wireless neoVI server application. You can also leverage VehicleScape DAQ's auto-generated scripts by modifying them to make a custom solution.

Device Specifications

- neoVI 3G Architecture -- over 10X performance over previous adaptors
- Power Consumption (per VNET, typical): 150 mA @ 14.4 VDC
- Sleep Power Consumption (per VNET, typical):
- Normal Sleep: 10 mA @ 12.0 VDC
- Instant Wakeup: 27 mA @ 12.0 VDC
- Comatose: 2 mA @ 12.0 VDC
- Power Supply: 5.5-27 Volt Power Operation
- Temperature Range: -40C to +85C
- Vehicle Connector: DB-25 pin connector (DB-26HD adaptor cable, included)
- Warranty: One Year Limited Warranty
- Firmware: Field upgradeable design (flash firmware)
- Microsoft Certified USB drivers
- Isolated USB
- Stand-Alone Mode Including Scripting, Receive Messages, Transmit Messages,
- Expressions, IO, and Transport Layers
- J2534 and RP1210 A/B compatible for CAN/ISO15765, Keyword, and ISO9141
- SD card slots in neoVI PLASMA support up to 2 x 128 GB storage.
- Battery backed real time clock (RTC)

General Purpose IO

- General Purpose IO: 5 MISC IO. Digital: MISC 1-2 (0-5V). Digital/Analog(10-bit): MISC 3-5 (0-3.3V).
- General Purpose IO rate report interval: 1 Hz to 10 kHz or based on digital change
- General Purpose IO Maximum Current Output (Sunk/Sourced): 4mA

Networks – General

- 64 Bit time stamping to accuracy of 10 microseconds on CAN and LIN networks and never overflows. 0.5 microsecond accuracy timestamp available if using one network only
- Simultaneous operations on all CAN/LIN networks
- Transmit message double-buffering on all networks allows back to back message transmission

Ordering Information:

| Part Number | Description |
|--------------|--|
| FIRE-VNET-EP | FIRE VNET EP Module for neoVI PLASMA & neoVI ION |

Network Specifications

8x CAN (Controller Area Network) Channels

- 6 Dedicated ISO11898 Dual Wire CAN Physical Layer (TJA1040)
- 2 Dedicated Single Wire CAN Physical Layer GMW3089 / SAE J2411 (MC33897) **-OR-**
- 1 ISO11519 Low Speed Fault Tolerant CAN Physical Layer (TJA1054A) and 1 Single Wire CAN Physical Layer GMW3089 / SAE J2411 (MC33897)**Optional*
- CAN 2.0B Active
- Up to 1 M-Bit Software Selectable Baud Rate (auto baud capable)
- Capable of generating error frames
- Listen only mode support
- High Speed Mode, Test Tool Resistor, and High Voltage Wakeup support

5x LIN (Local Interconnect Network) or ISO9141/Keyword 2000/K and L Line (shared)

- Full support for LIN 1.X, 2.X and J2602
- LIN J2602 / 2.X compatible physical layer
- Software Selectable LIN Master Resistor
- UART Based State Machine
- Initialization Waveforms including Fast Init, Five Baud, & Custom
- Programmable Timing Parameters including Inter-Byte, TX Inter-Frame, RX Inter-Frame and Initialization Waveforms (0.5 ms Resolution)
- Software Selectable Baud Rate
- 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

VNET Synchronization

- All VNETs are time synced within the neoVI PLASMA
- 25 ns resolution synch resolution

**Specifications subject to change. Please contact Intrepid for the latest information.*



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