Add FlexRay Network Functionality to neoVI PLASMA or neoVI ION

The FlexRay VNET Module is specially designed to add FlexRay network adaptor functionality to a neoVI PLASMA or neoVI ION. It can occupy up to two VNET slots within a neoVI PLASMA and one slot in the neoVI ION. The FlexRay VNET Module enables quick setup and monitoring of a complete FlexRay network. This module includes two complete FlexRay nodes, each with channel A and B physical layers.

Benefits
• Interact with the Bosch ERAY FlexRay Core using Windows Development tools such as Microsoft Visual Studio
• Develop FlexRay / Handler ECU code on the PC
• Reconfigure FlexRay networks without using device programmers
• Restbus Simulation of FlexRay networks

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:
  • 1 x FlexRay Network and 12 x DWCAN (1 FlexRay VNET + 2 FIRE VNETS)
  • 1 x FlexRay Network and 6 x DWCAN (1 FlexRay VNET + 1 FIRE VNET)
  • 1 x FlexRay and 1 x MOST Network (1 FlexRay VNET + 1 MOST VNET)
  • 1 x FlexRay and 7 x Differential Inputs (1 FlexRay 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
Some prefer to write their own software. For these users, the FlexRay VNET supports the neoVI DLL open 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.
Hardware-in-the-Loop Real-Time Performance
The FlexRay VNET Module 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 FlexRay VNET. You can use Vehicle Spy to monitor and transmit on all FlexRay VNET 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, pick signals, then auto-generate complex scripts. Send, start and stop scripts via USB or the Wireless neoVI server application. You can even leverage VehicleScape DAQ’s auto-generated scripts by modifying them to create a custom solution.

Network Specifications
- 1 Pair of FlexRay Channels (Channel A + B)
- Two FUJITSU ASSP MB88121C
- FlexRay Controllers allow full network startup.
- Four ELMOS E910.54B FlexRay physical layer transceivers.
- Configuration of FlexRay controllers, Transceivers, and FPGA available

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
- SD card slots in neoVI PLASMA support up to 2 x 128 GB storage
- Battery backed real time clock (RTC)

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

VNET Synchronization
- All VNETs are time synced within the neoVI PLASMA/ION
- 25 ns resolution synch resolution

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

Ordering Information:

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