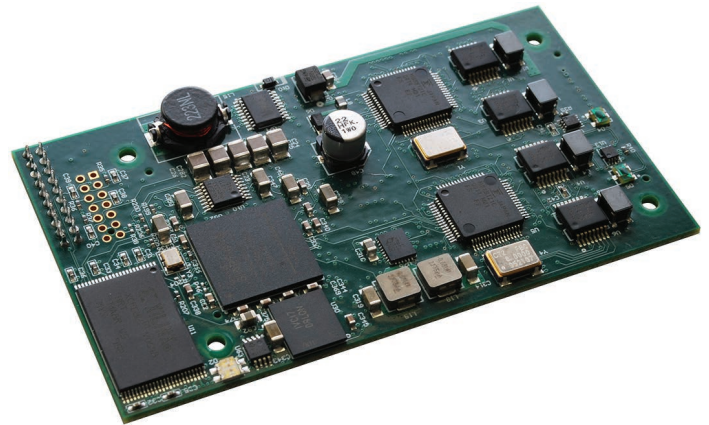


FlexRay VNET Module

Add FlexRay Network Functionality to neoVI PLASMA or ION

The FlexRay VNET module is specially designed to add FlexRay network adapter functionality to a neoVI PLASMA or neoVI ION. One or two may be used in VNET slots in a neoVI PLASMA, or one in a neoVI ION. The FlexRay VNET module enables quick setup and monitoring of a FlexRay network. The VNET 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

Install Up to Three VNETs into a neoVI PLASMA, or Two VNETs into a neoVI 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 2 VNET, which is provided with the unit and is compatible with all other VNETs.) Example neoVI PLASMA configurations include:

- 1x FlexRay and 16x DW CAN (FlexRay VNET + 2 FIRE 2 VNETs)
- 1x FlexRay and 8x DW CAN (FlexRay VNET + 1 FIRE 2 VNET)
- 1x FlexRay, 1x MOST and 8x DW CAN (FlexRay VNET + MOST VNET + FIRE 2 VNET)
- 1x FlexRay, 7x differential inputs, 2x single-ended inputs, 8x PWM I/O and 8x DW CAN (FlexRay VNET + AIN VNET + FIRE 2 VNET)

VNETs Operate Independently or Together

Although independent, VNETs record data with a single timestamp onto the neoVI PLASMA/ION's SD cards.

VNETs Operate via USB or Wireless Interface

All VNETs are accessible via USB, like our popular neoVI network adapters. They are also accessible and programmable via the neoVI PLASMA/ION's wireless interfaces. This makes the neoVI PLASMA/ION ideal for any application, 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

For those who prefer to write their own software, the FlexRay VNET supports the neoVI DLL open API. This API includes examples for all popular development environments, including C#, VB .NET, VB6, Delphi, C++ Builder, Visual C++, LabVIEW and LabWindows. We also have examples and drivers for Linux.



INTREPID
CONTROL SYSTEMS
www.intrepidcs.com

1850 Research Drive
Troy, MI 48083 USA
Phone: +1 (586) 731-7950
Fax: +1 (586) 731-2274



www.aeta-rice.com

FlexRay VNET Module

Hardware-in-the-Loop Real-Time Performance

The FlexRay VNET includes a real-time scripting engine for real-time messaging. For example, you can create an application to load a script into the hardware and interface with the script variables, allowing microsecond-level measurement and control. Vehicle Spy, through its Hardware Acceleration feature, can also send real-time functions to the device, such as periodic messaging, replay, or scripting.

Vehicle Spy Application Software

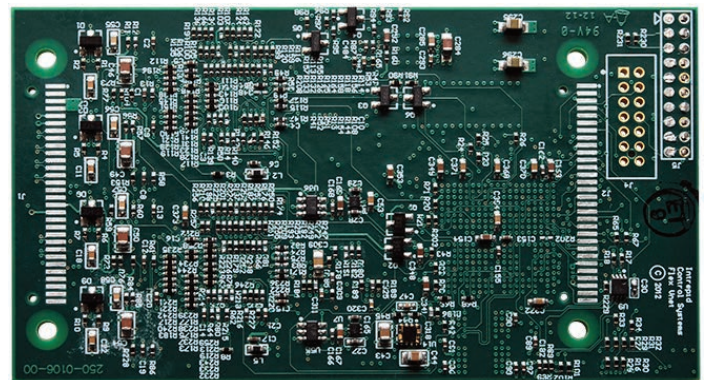
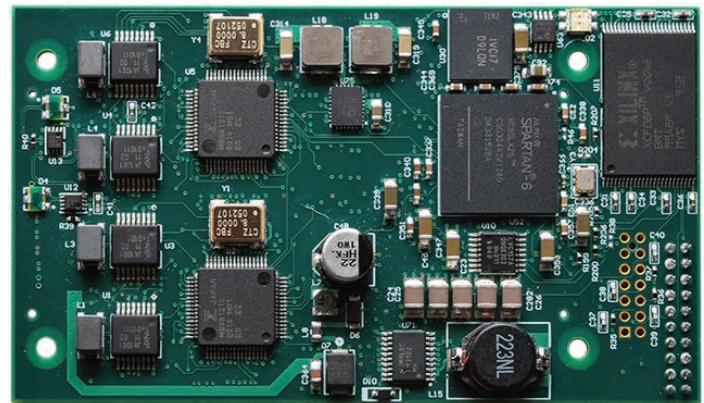
Our Vehicle Spy software fully supports the FlexRay VNET. You can use Vehicle Spy to monitor and transmit on all FlexRay VNET networks simultaneously. The Vehicle Spy license from the neoVI PLASMA/ION is required to configure standalone functions. Take advantage of the powerful VehicleScope DAQ interface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

Network Specifications

- One pair of FlexRay channels (A + B)
- Two FUJITSU ASSP MB88121C controllers
- Four ELMOS E910.54B FlexRay transceivers
- Configuration of controllers, transceivers and FPGA

Device Specifications

- neoVI 3G Architecture: over 10X the performance of previous adapters
- 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: 5.5-27V operation
- Temperature range: -40°C to +85°C
- Vehicle connector : DB-25 connector (DB-26HD adapter cable included)
- One-year limited warranty
- Field upgradeable flash firmware
- Microsoft-certified USB drivers
- Isolated USB
- Standalone mode, including scripting, receive and transmit messages, expressions, I/O, and transport layers
- SD card slots in PLASMA support up to 2x 128 GB
- Battery backed real time clock (RTC)



Timing Specifications

- 64-bit timestamping to an accuracy of 10 μ s on CAN and LIN networks with no overflow
- Accuracy of 0.5 μ s available if using one network only

VNET Synchronization

- All VNETs time synced within the neoVI PLASMA/ION
- 25 ns sync resolution

Ordering Information

Part Number	Description
FLEXRAY-VNET	FlexRay VNET module for PLASMA/ION

Specifications subject to change; please contact Intrepid for the latest information. All trademarks are the property of their respective owners.

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INTREPID
CONTROL SYSTEMS
www.intrepidcs.com

1850 Research Drive
Troy, MI 48083 USA
Phone: +1 (586) 731-7950
Fax: +1 (586) 731-2274



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