

INTREPID CONTROL SYSTEMS, INC.

neoVI RED

Low Cost, High Value CAN and LIN Bus Interface

Multiple Protocol Tool to Support Vehicle Bus Needs of Today and Tomorrow

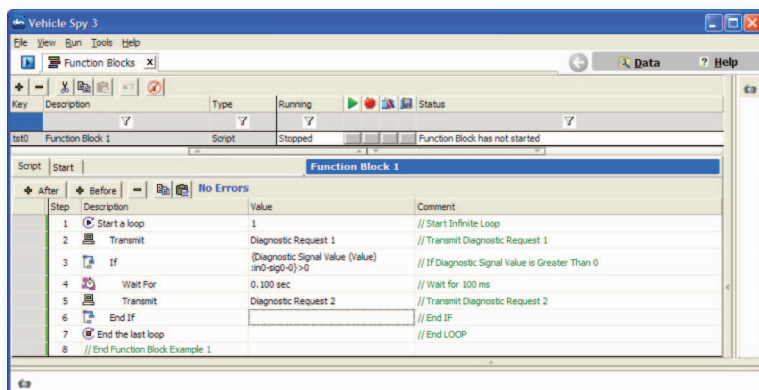
Intrepid Control Systems introduces neoVI RED, part of our growing line of vehicle network development tools. neoVI RED fills the need for multiple CAN and LIN channels. neoVI RED is a low cost, high value CAN and LIN bus interface that fits in your pocket.

Connect to Multiple CAN and LIN Busses Simultaneously

With its two CAN and two LIN channels, neoVI RED allows you to view message traffic on all four networks simultaneously. As multiple channels become standard, you can rely on neoVI RED, with its accuracy of 10 microseconds, to monitor CAN and LIN networks without missing a message.

Log Data to Internal Memory Card Without a PC

neoVI RED supports a MicroSD card for trouble-free datalogging. Now you can log data without your PC. First, setup neoVI RED including message filtering with Intrepid Control Systems' Vehicle Spy software. Then disconnect from your PC and log vehicle network traffic until the card is full. neoVI RED supports logging on all networks simultaneously with no latency issues.



Embedded Scripting and Automation - Function Blocks

Easily setup automated scripts such as transmitting multiple messages at a given interval and much, much more using neoVI RED's internal scripting engine. With Intrepid Control Systems' Function Blocks, you can use an easy-to-use, mouse driven interface that creates simple yet powerful automated tasks embedded on the hardware itself.

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neoVI is Designed for Automated Testing

neoVI RED has built-in support for automated testing. With built-in Function Blocks (automated scripting), neoVI RED supports scripts to operate without a PC. First, simply setup the neoVI RED using Intrepid Control Systems' Vehicle Spy software. Then you can run the device in a stand-alone mode that will allow you to send and receive data as well as log data. neoVI RED is also equipped with generic IO that can be configured to trigger an external data acquisition system.

neoVI is a Smart Interface for Data Logger Applications

neoVI RED includes a MicroSD card slot for logging data directly to the device without a PC. Now you can setup the device to collect your LIN, CAN, or J1939 data directly onto storage media. Using the widely available MicroSD card, neoVI RED can send diagnostic requests and receive normal and diagnostic responses from your data network either connected to a PC for real-time data analysis or for stand-alone data logging. Its versatile design and full industrial temperature range allow neoVI RED to work in harsh environments without the need for constant interaction or constant PC connection.

neoVI is perfect as a front-end for a flight recorder or data logger. Each sub circuit on neoVI implements micro-amp power down modes. The device can wake up on activity of any network or connection of USB.

Device Specifications

- neoVI 3G Architecture over 10x performance over previous devices
- 3 DSPs and 1 RISC processor for 125 MIPS of processing
- Power Consumption (typical) : 150mA @ 14.4 VDC
- Sleep Power Consumption (typical) : 12mA @ 12.0 VDC
- Power Supply: 6-27 Volt Power Operation (Physical layers non functional under 6 volt)
- Dual user notification LED (red and green)
- Temperature Range: -40C to +85C
- Vehicle Connectors : 25 Pin male D-SUB and 9 Pin Male D-SUB
- Warranty: One Year Limited Warranty
- Firmware: Field upgradeable design (flash firmware)
- General Purpose IO: 6 MISC IO (0 - 3.3V), 4 IO can be configured as analog inputs
- General Purpose IO rate report interval: 10 Hz to 1 Khz or based on digital change
- 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.
- microSD card slot support for up to 32 Gigabytes of storage (A 2 GB cards is included with the device.) The removable card is formatted using FAT32 for direct usage in a PC.
- 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.

Network Specifications

2x CAN Channels

- 1 Dedicated ISO11898 Dual Wire CAN Physical Layer (TJA1040)
- 1 User selectable from ISO11898 Dual Wire CAN Physical Layer (TJA1040) , ISO11519 Low Speed Fault Tolerant CAN Physical Layer (TJA1054A), or Single Wire CAN Physical Layer GMW3089 / SAE J2411 (MC33897)
- CAN 2.0B Active
- Up to 1 M-Bit Software Selectable Baud Rate (auto baud capable)
- Capable of generating and detecting error frames (With firmware update)
- Graphical Bit Time / Baud Rate Calculator
- Listen only mode support
- High Speed Mode, Test Tool Resistor, and High Voltage Wakeup support

2x LIN (Local Interconnect), ISO9141, Keyword 2000, or K and L Line

- 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
- Capable of Generating LIN Waveforms
- 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
- UART Based State Machine
- Only first channel supports L
- Programmable Timing Parameters including Inter-Byte, TX Inter-Frame, RX Inter-Frame and Initialization Waveforms (0.5 ms Resolution)
- Initialization Waveforms including Fast Init, Five Baud, and Custom
- Software Selectable Baud Rate
- Software enabled 512K Resistor (channel one only)

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

Ordering Information:

Part Number	Description
NEOVI-RED	neoVI RED device with Vehicle Spy 3 Trial