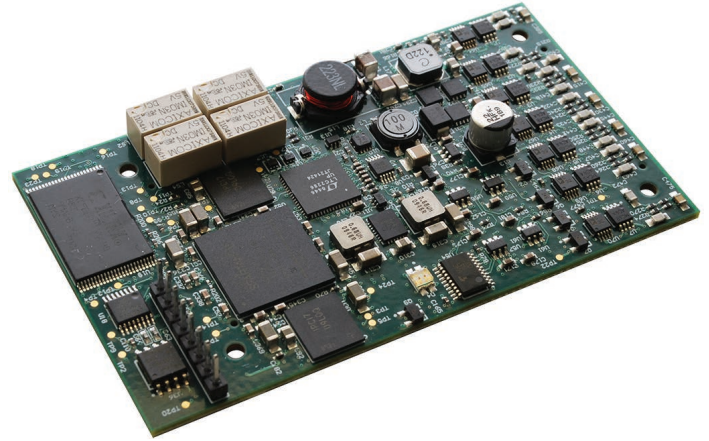# AIN VNET Module

Add Analog Input and PWM I/O to neoVI PLASMA or ION

The AIN VNET module occupies one of the free VNET slots in a neoVI PLASMA or neoVI ION, seamlessly adding analog input and PWM I/O capabilities to your device's existing functionality.

Analog Input Capability with PWM I/O in One Card

The AIN VNET provides 7 differential and 2 single-ended input channels. The module also has 8 PWM channels, which can be configured as inputs or outputs. All channels are isolated from the PC and protected against over-voltage.

Mixed Signal Capture

The AIN VNET allows you to capture analog data easily and synchronize it with serial network data from our other VNET modules, such as the FIRE 2 VNET. With one package, you can now capture analog sensors with network data. This functionality is also fully integrated with Intrepid's software and wireless tools.

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

AIN VNET Module

API Support

The neoVI DLL 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.

Key Specifications

Channels

- 7x differential inputs
- 2x single-ended inputs
- 8x PWM I/O

Differential Inputs

- Voltage range: -10V to +30V
- Resolution: 16 bits
- Sampling rate: 2ks/s
- Impedance: 500 kΩ
- Input protection: to 100V

Single-Ended Input Specifications

- Voltage range: +/- 10V
- Resolution: 10 bits
- Sampling rate: 2 ks/s
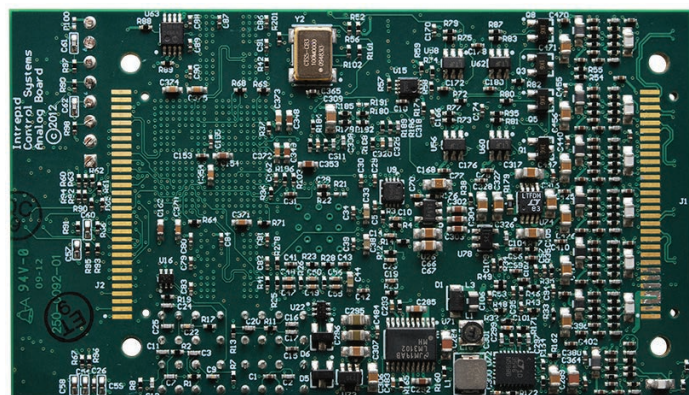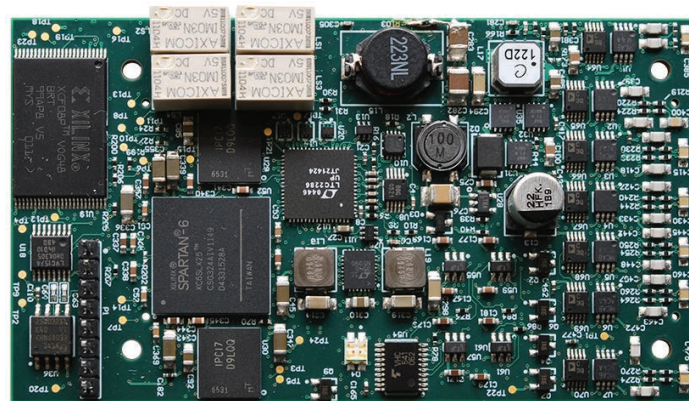- Impedance: 1 MΩ
- Input protection: -50V to +50V

PWM I/O Specifications

- Voltage range: 0-32V
- Impedance: 500 kΩ
- Input measurement & output generation: 1-65 kHz
- Input protection: 0-32V
- Low side driver only
- Trip point: programmable 1-3V
- Sleep current: < 1 mA
- Synchronization: channel data is time-synced with all other VNETs

Ordering Information

Part Number	Description
AIN-VNET	Analog input and PWM I/O VNET module for neoVI PLASMA/ION

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