

# VN5620/VN5430

## High Performance for Automotive Ethernet

### What is the VN5620?

The VN5620 is a compact and powerful interface for the analysis, simulation, test and validation of Ethernet networks. The VN5620 interface supports a wide range of possible applications. It is suitable for synchronous Ethernet monitoring with other bus systems, network participation (e.g. in simulations and generation of frames, loads and errors in tests). The user can use Ethernet (1000BASE-T) or USB 3.0 as interface to the computer.

### What is the VN5430?

The VN5430 is a compact interface for simulation and test tasks in the Ethernet environment. The user benefits from the VN5430's versatile configuration options. A wide range of simulation and test scenarios can be implemented and the network topology can be maintained at the same time. The device can also be used as a stand-alone switch. Ethernet (1000BASE-T) is used as the interface to the computer.

Both devices are suitable for use in the office as well as on test stands. The temperature and voltage ranges are designed accordingly.

### Overview of Advantages

- > Flexible configuration options that facilitate the handling of high data rates
- > Ethernet ports and application access can be easily interconnected by different segmentation types (link/switch) and thus implement different test requirements
- > Storage of the device configuration on the interface, which is also activated without a PC connection
- > Depending on application, power supply via external power supply unit or USB-C (VN5620 only)
- > Flexible connection options to the computer via USB or Ethernet (1000BASE-T)

### Application Areas

#### > Ethernet monitoring:

Transparent connection (in/out/monitor) between two nodes and monitoring with precise timestamps.

#### > Bus simulation:

Customer-defined hardware configuration for flexible setup of the remaining bus simulation with CANoe. Ethernet. This enables abstraction between the network and simulation, and enables the network interface to mimic various network topologies.

#### > Media converter:

Data link between 100BASE-T1/1000BASE-T1 and 100BASE-TX/1000BASE-T Physical Layer.

#### > Direct access:

Individual access to each port, e.g. for testing several identical systems on one test bench, for re-programming ECUs or for in-vehicle diagnostics.



VN5620/VN5430

**Technical Data**

	VN5620	VN5430
<b>Ethernet ports</b>		
transceiver/supported physical layer	4 x Marvell 88Q2112 (IEEE 100BASE-T1/ 1000BASE-T1) 2 x Broadcom BCM54210 (IEEE 1000BASE-T)	6 x Marvell 88Q2112 (IEEE 100BASE-T1/ 1000BASE-T1) 2 x Broadcom BCM54210 (IEEE 1000BASE-T)
connectors	2 x ix Industrial® 2 x RJ45	3 x ix Industrial® 2 x RJ45
<b>CAN / CAN FD channels</b>	2 x NXP TJA1057	-
Digital I/O	Output high (no load): 13 V Output high (load 346Ω): 5,3 V Output low: 0V Input range: 0V..16 V Input Schmitt trigger high: 3,4 V Input Schmitt trigger low: 2,5 V R <sub>out</sub> : 503 Ω	-
Computer interface	USB 3.0 / IEEE 1000BASE-T	IEEE 1000BASE-T
Power supply	External powered 10...36 V (typ. 12 V) or USB-C powered*	
Temperature range	operating: storage:	0 °C...+45 °C -40 °C...+85 °C
Operating system	Windows 10 64 bit	
Dimensions (L/B/H)	143 mm x 153 mm x 37 mm	143 mm x 149 mm x 37 mm
Weight	570 g	554 g

\* = computer must support 3 A on USB-C port

**Feature Matrix**

	VN5620	VN5430
<b>Port-Interconnection</b>		
Layer-2 Switch		x
TAP		x
Media conversion		x
Link transparency		x
<b>Measure</b>		
Host-uplink frame filter		16 rules
Reporting of corrupted frames		x
<b>Simulation</b>		
VLAN tagging/untagging/routing		x
Virtual ports		32
<b>Test</b>		
HW packet generator		x
<b>Device Synchronization</b>		
HW-synchronization		x
SW-synchronization	x	*
IEEE1588 (PTP)	*	*

\* = available in later release