What is VX1000?
The VX1000 System is a scalable solution with top performance for your ECU measurement and calibration tasks. It can be used in the vehicle – both in the cabin and in the engine compartment – on test benches and in the laboratory. Especially when developing ADAS ECUs, this allows you to control raw data captured by high-resolution radar sensors in combination with XCP data, e.g. object/tracking lists. The system forms the interface between the ECU and a measurement and calibration tool such as CANape. For high data throughput with minimal impact on ECU runtime, data is accessed over the microcontroller-specific data trace and debug ports. The VX1000 Base Module is connected to the PC over XCP on Ethernet, an OEM-independent ASAM standard that is widely used in the automotive industry. The VX1000 measurement hardware is connected to the ECU via a POD (Plug-On device). Depending on the available microcontroller interface, either the data trace or a copying method can be used to acquire measurement data.

Overview of Advantages
> Powerful measurement and calibration access to internal ECU data with maximum transmission rates
> Very small POD to connect to the ECU debug interface
> Easy and quick integration into the ECU software
> No impact on ECU run-time with data trace measurement method
> Interface to numerous development tools by third-party suppliers via the standardized ASAM protocol XCP on Ethernet
> Special functions for engine controllers such as Calibration Wake-Up and Calibration RAM Supply
Functions
> Very high measurement data throughput of more than 100 MByte/s for XCP data and radar raw data with the data trace measurement method and up to 3 MByte/s with the data copying method
> Measurement of fast signal cycles (>10 µs for data trace, >40 µs for data copying method)
> Measurement configurations with up to 100,000 signals can be processed
> Precise generation of DAQ time stamps in the ECU
> ECU cold start measurement (First Loop DAQ)
> Calibration of ECU parameters without address range limitations
> Calibration memory page switching
> Automatic overlays when calibrating parameters in flash memory
> Stimulation or bypassing with short latency times
> 100/1000 Mbit/s Ethernet connection to the PC
> Galvanically isolated power supply with wide input voltage range
> POD power supply via the VX1000 Base Module
> Optional: Flash programming, even for “brain-dead” ECUs
> Optional: 1 x FlexRay and up to 5 x CAN (FD) via XL Driver Library interface for CANape/CANalyzer/CANoe and custom applications
> PC tools for easy configuration and for software updates

Supported Microcontrollers
Infineon
> XC2000 product line
> TriCore TC1xxx (ED)
> TriCore AURIX TC2xx (ED)
> TriCore AURIX TC3xx (ED)
(DAP, DAP2, HSCT, Aurora)

NXP/ST
> PowerPC xPC55xx/S6xx/S7xx/S8xx
(JTAG Nexus Class 2+, Zipwire, Nexus AUX, Nexus Aurora)

Renesas
> RH850
> V850E2
(JTAG Nexus Class 2+, Nexus Aurora)

Texas Instruments
> TMSx70
(RTP/DMM)

VX1000 Base Module Variants

<table>
<thead>
<tr>
<th>Serial POD</th>
<th>HSSL POD</th>
<th>HSSL2 POD</th>
<th>CAN/FlexRay</th>
<th>BR/ETH</th>
</tr>
</thead>
<tbody>
<tr>
<td>VX1060</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VX1134B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VX1134C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VX1135A</td>
<td>1</td>
<td>1</td>
<td>5 / 1</td>
<td></td>
</tr>
<tr>
<td>VX1135C</td>
<td></td>
<td>1</td>
<td>5 / 1</td>
<td>2</td>
</tr>
<tr>
<td>VX1135D</td>
<td>1</td>
<td>1</td>
<td>5 / 1</td>
<td>2</td>
</tr>
<tr>
<td>VX1135E</td>
<td></td>
<td>1</td>
<td>5 / 1</td>
<td>2</td>
</tr>
<tr>
<td>VX1135F</td>
<td>1</td>
<td>1</td>
<td>5 / 1</td>
<td>2</td>
</tr>
</tbody>
</table>

1 PODs can be used alternatively but not in parallel  2 FlexRay optional

More information: www.vector.com/VX1000