

16 Bit Digitizer (oscilloscope) PCIe Gen-3 2 channels 500 MS/s 4GS memory

**Order-No.: RMX-165-040 Series/Model: RazorMax / CompuScope
Express 16504**



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Main Product Features

- **4 channel Digitizing Input Channels**
- **500 MS/s Maximum Sampling Rate per Channel**
- **350 MHz Bandwidth**
- **16-Bit Vertical A/D Resolution**
- **4 GS (8 GB) Onboard Memory Standard**
- **FPGA Based Applications for Real-Time DSP Functions**
- **Dual Port Memory w.Sustained PCIe**
- **Data Streaming with more then 4 GB/s**
- **Full-Featured Front-End w. DC or AC Coupling a. 50 Ω Inputs**
- **Software Control of Input Voltage Ranges**
- **Ease of Integration with External or Reference Clock In & Clock Out**
- **External Trigger In & Trigger Out**
- **Full-Height 1/2 Length PCI Express (PCIe) Generation 3.0 x8 Card**
- **Programming-Free Operation with GaGeScope PC Oscilloscope Software**
- **Software Development Kits Available for C/C#, LabVIEW and MATLAB**

The new extremely fast and high-resolution Gage digitizers of the series RazorMax Express CompuScope offer with a 3/4" long Single slot PCI Express card a resolution of 16 bit and a sampling rate of 1 GS/s (per channel).

Sampling rates: The 2 or 4 channel 16 bit digitizer / oscilloscope RazorMax PCI Express (Gen-3) PC oscilloscope cards are available in 2 versions:

The PCI Express x8 Gen-3 Series CSE161Gx digitizer /oscilloscope cards has a sampling rate of 1 GS/s per channel

The PCI Express x8 Gen-3 Series CSE1650x Series digitizer /oscilloscope has a sampling rate of 500 MS/s per channel.

Possible transfer speeds in the PCIe slots:

PCI Express (PCIe) x8 (8 Lane) Gen-3 (Version 3.0): 4+ GB/s

PCI Express (PCIe) x8 (8 Lane) Gen-2 (Version 2.0): 3.1 GB/s

PCI Express (PCIe) x8 (8 Lane) Gen-1 (Version 1.0): 1.5 GB/s

PCI Express (PCIe) x4 (4 Lane) Gen-1 (Version 1.0): 1 GB/s

PCI Express (PCIe) x1 (1 Lane) Gen-1 (Version 1.0) 245 MS/s

Possible transfer speeds with Thunderbolt-3 Expansion:

[Gage Thunderbolt-3 version:](#) (PCIe) x8 (8 Lane) Gen-3 (Version 3.0): 4+ GB/s

[OneStop Systems / Magma Expansion:](#) PCIe) x8 (8 Lane) Gen-3 (Version 3.0): 4+ GB/s

Possible [eXpert On-Board Real-Time Application Options](#) (model-dependent):

- eXpert™ Daten Streaming Stream-to-Analysis
- eXpert DDC (Digital Down Conversion)
- eXpert™ Mittelwertbildung eXpert™
- eXpert FFT (Fast Fourier Transform)
- eXpert OCT (Optical Coherence Tomography)

Possible [Software Development Kits \(SDK's\)](#).

- CompuScope SDK für C/C# (WINDOWS 7/8/10 32Bit/64Bit und Linux)
- CompuScope SDK für MATLAB (WINDOWS 7/8/10 32 Bit/64Bit)
- CompuScope SDK für LabVIEW (WINDOWS 8/10 32Bit/64Bit)

[GageScope \(Oscilloscope-Software\)](#)

- GageScope: Lite Version
- GageScope: Standard Version
- GageScope: Professional Version

Combination possibilities with broadband Downconverter:

- [Broadband Downconverter solution from 100 kHz to 8 GHz](#)
- [Downconverter solution from 100 to 18 GHz](#)
- [Downconverter solution from 100 kHz to 8 GHz 100 kHz to 27 GHz](#)

Applications:

- RADAR Design and Test
- Signals Intelligence (SIGINT)
- Ultrasonic Non-Destructive Testing
- LIDAR Systems
- Communications
- Optical Coherence Tomography
- Spectroscopy
- High-Performance Imaging
- Time of Flight
- Life Sciences
- Particle Physics

Manufacturer page

<https://vitrek.com/gage/>

Data Sheet Download



[2 or 4 channel HighSpeed 16 Bit Digitizer with 500 MS/s or 1 GS/s per channel \(3.4 MiB\)](#)



Opening the Download-Files May require the Adobe-Acrobat-Reader.

[Click here to download the Adobe-Acrobat-Reader.](#)

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