

UltraSpeed V-Modules

Options: **UV** **VIS** **NIR**
DLS



As fast as possible: UltraSpeed V-Modules for Texas Instruments High-Performance DLP® Technology



High-performance DLP (Digital Light Processing) from Texas Instrument is a technology of MEMS spatial light modulators that goes far beyond standard multimedia projections and automotive display applications.

With the V-Module series, ViALUX offers a broad product range that stands out from ordinary DLP projectors, but offers the highest performance and flexibility within the DLP chipset family.

The existing Hi-Speed (USB 2.0) and SuperSpeed (USB 3.0) performance classes of the V-Modules are supplemented by our next generation: UltraSpeed V-Modules (USB 3.0 and PCIe x4 Gen3).

UltraSpeed V-Modules allow users to transfer image data at the highest rate currently available on the market. All UltraSpeed V-Modules are equipped with an external PCIe interface. This, in conjunction with the expandable on-board DDR4 memory enables the user to achieve high-performance streaming between PC and V-Module. In case of the V-7002, data streaming is even faster than the switching rate of the DMD. The possibility of stable data transfer between the module and the PC over long distances via fiber optical cables rounds off the list of advantages.



V-7002

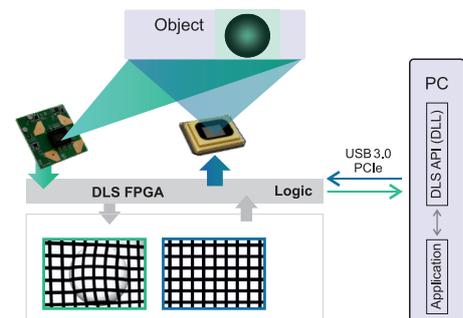
DMD Switching Rate	22 727 fps*
PC Transfer Rate (PCIe)	~ 28 500 fps

* Switching rate at 1 bit B/W with full array |

In addition, the UltraSpeed V-Modules are equipped with a connection option for an image sensor that supports our DLS (Direct Link Sensor) concept – perfectly synchronized DLP projection with corresponding image acquisition within a single FPGA logic.

Powered by the recognised ALP software the V-Modules offer great versatility and are well suited for industrial and academic research, as well as highly reliable OEM components for mass production.

The PCIe and USB device drivers support all current Microsoft Windows® operating systems and guarantee smooth integration with wide variety of desktop PCs. The V-Module software ALP-5.0, a DLL library, fits seamlessly into standard programming platforms like C++, C#, Visual Basic (.NET), Python, MATLAB, LabVIEW, and other development platforms and is fully compatible to all former ALP-4 versions.*



Five UltraSpeed V-Modules with different wavelengths are available. Depending on the chipset, the UltraSpeed V-Modules differ in the extension board, which is connected with one or two flex cables for data exchange.

- V-7002** **VIS/UV** with 0.7" XGA DMD for visible or ultra-violet light (DLP7000VIS/DLP7000UV)
- V-9502** **VIS/UV** with 0.95" 1080p DMD for visible or ultra-violet light (DLP9500VIS/DLP9500UV)
- V-650L02** **NIR** with 0.65" WXGA DMD for near-infrared light (DLP650LNIR)
- V-6502** **VIS** with 0.65" 1080p DMD for visible light (DLP6500VIS)
- V-9002** **VIS/UV** with 0.9" WQXGA DMD for visible or ultra-violet light (DLP9000XVIS/DLP9000XUV)

Optionally available are:

- Various flex cable lengths and form factors
- RAM extension to 256 Gbit (32 GB)
- Different image sensors called ViALUX V-Cams
- Fiber optical cables (up to 100m)

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