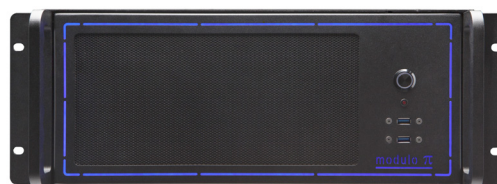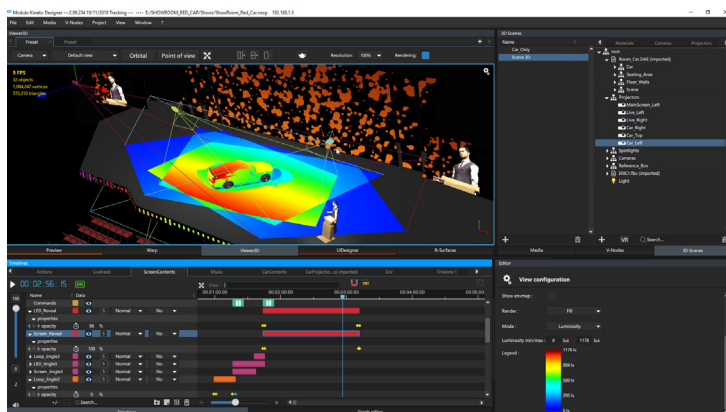# Modulo Kinetic with ruggedized chassis



## The super high-end fully-integrated media server solution

Modulo Kinetic is the ultimate video solution tailored for the most challenging projects.

Reliable across the complete workflow, Modulo Kinetic enables study, simulation, show creation, encoding, playback and control,... all of it through one single box.
With its intuitive user interface and advanced innovative features, Modulo Kinetic offers unprecedented real-time 3D, interactivity, and tracking.

The platform relies on **Kinetic Designer**, a powerful user interface with a dedicated workstation, connected to one or several **Kinetic VNode media servers.**
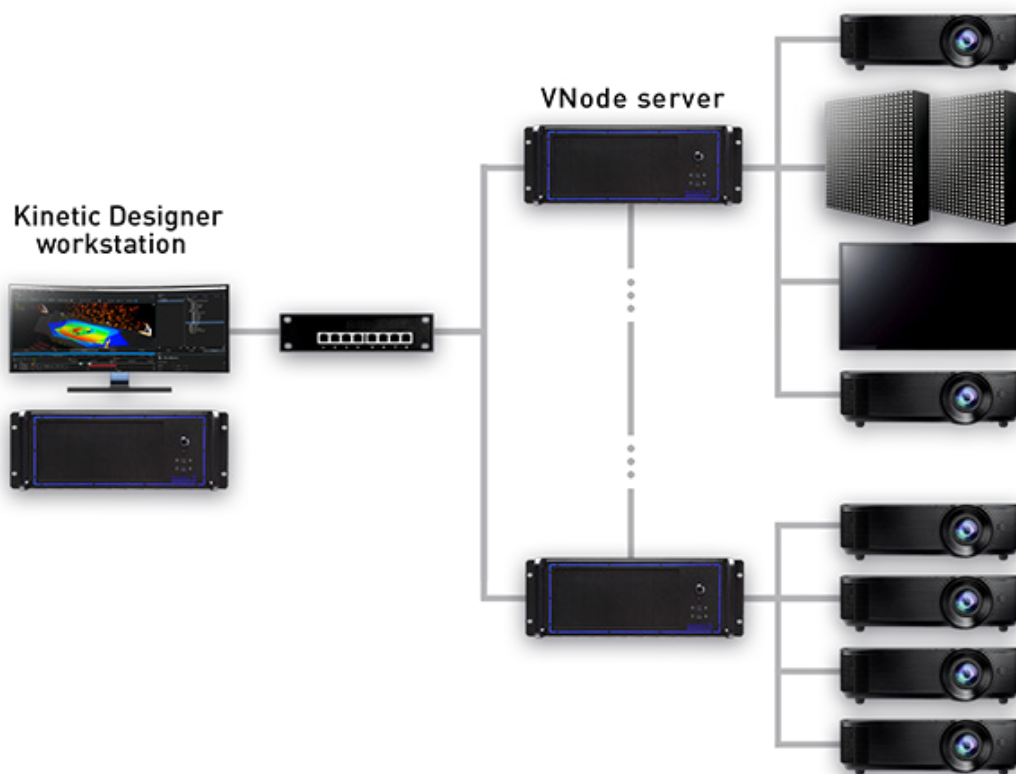
# Modulo Kinetic Designer

REF: RKI-DES

## A powerful user interface with dedicated workstation

The Modulo Kinetic Designer is the cornerstone of your workflow. It comes with a dedicated workstation and powerful software. It can be used offline for show study, simulation, and pre-encoding.
In its ruggedized enclosure version, Modulo Kinetic Designer can endure the roughest conditions. Its reinforced suspended chassis and professional connectivity ensure utmost reliability.

## Versions

| Reference | | |
|---|---|---|
| RKI-DES | 2TB SSD storage | 120GB system SSD |

## Options

| Reference | |
|---|---|
| TC-PCIE-R | Time code reader card - Pcie |
| TC-PCIE-RW | Time code reader generator card - Pcie |
| TC-USB-R | Time code reader card - USB |

# Modulo Kinetic VNode

REF: RKI-VNO-1, RKI-VNO-2, RKI-VNO-4, RKI-VNO-6, RKI-VNO-2x4K, RKI-VNO-3x4K, RKI-VNO-4x4K

## Versatile media servers

One or several Modulo Kinetic VNode servers can be connected to your Kinetic Designer. When connected to the VNode media servers, Kinetic Designer will automatically distribute the media content to the VNode servers on the network.
In its ruggedized enclosure version, Modulo Player Pro can endure the roughest conditions. Its reinforced suspended chassis and professional connectivity ensure utmost reliability.

## Versions

| Reference | Physical outputs | Outputs | Storage Data |
|---|---|---|---|
| RKI-VNO-1 | 4 x DP 1.4 | 1 output up to WQXGA[1] | 2TB SSD |
| RKI-VNO-2 | 4 x DP 1.4 | 2 outputs up to WQXGA[1] | 2TB SSD |
| RKI-VNO-4 | 4 x DP 1.4 | 4 outputs up to WQXGA[1] or 1 output up to 4K[2] | 2TB SSD |
| RKI-VNO-6 | 6 x mini DP 1.4 | 6 outputs up to WQXGA[1] or 1 output up to 4K[2] | 2TB SSD |
| RKI-VNO-2x4K | 6 x mini DP 1.4 | 6 outputs up to WQXGA[1] or 2 outputs up to 4K[2] | 4 TB PCIE NVME SSD |
| RKI-VNO-3x4K | 6 x mini DP 1.4 | 6 outputs up to WQXGA[1] or 3 outputs up to 4K[2] | 4 TB PCIE NVME SSD |
| RKI-VNO-4x4K | 6 x mini DP 1.4 | 6 outputs up to WQXGA[1] or 4 outputs up to 4K[2] | 4 TB PCIE NVME SSD |

[1] 2560 x1600
[2] 4096x2160

## Options

| Reference | | Reference | |
|---|---|---|---|
| DELTA-3G-2 | Live Capture 2 x 3G SDI 3G | MOD-DP | Flex module single DP1.2 |
| DELTA-412G | Live Capture 1 x 12G SDI or 4 x 3G SDI | MOD-SDI4 | Flex module 4 x SDI 3G |
| DELTA-812G | Live Capture 2 x 12G SDI or 8 x 3G SDI | AD-GEN | Genlock card |
| DELTA-HDMI2 | Live Capture 2 x HDMI 2.0 | TC-PCIE-R | Time code reader card - Pcie |
| DELTA-HOST | Flex Host Card | TC-PCIE-RW | Time code reader generator card - Pcie |
| MOD-HDMI | Flex module single HDMI 2.0 | | |

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# Hardware specifications

**Operating System:** Windows 10 LTSB x64
**RAM:** 4 x 4GB DDR4
**Storage:** 1 x SSD 120GB OS / DATA: depending on version
**Processor:** Intel® Core™ i9
**LAN:** 2 x RJ45 10GbE etherCON
**Audio:** 2 x XLR symmetrical audio outputs

**USB:** Back panel: 1 x USB 3.1 (Gen 2) + 3 x USB 3.0
　　　 Front panel: 2 x USB 3.0
**Graphics Card:** AMD Radeon Pro
**Pro Power Neutrik® TRUE 1 Connection**
**Power Supply:** 100-240 VAC / 50-60Hz / 850W
**Average power consumption (high load):** 450W

# Software specifications

### Modulo Kinetic Designer

Dedicated application (PC) to control any number of networked Modulo Kinetic VNode servers
Reliable across the complete workflow, from show design and simulation, to show encoding and control
Smart easy-to-use user interface
Fully reliable solution with an automatic primary/secondary back-up

### Timelines

Unlimited number of timelines with unlimited number of layers
High flexibility allowing last-minute changes
Command layers with control cue (Pause/loop/device action,…)

### Settings per layer

Animate all parameters with keyframes
Position, scale, rotation, opacity, color, fade in/out
Advanced colorimetry, crop, progressive mask, clip, keyframed animation
Database of 2D GPU effects
Support for interactive shader format
Movie: In/out time, loop mode, speed change with frame blending

### 3D engine

Import point cloud, FBX, and COLLADA complete 3D scenes
Projection study & simulation in 3D & VR
Integrated extensive video-projectors database
3D animation editor
Integrated Prefabs (plane, sphere, cube, torus,…)
Lighting
Advanced materials including PBR, MatCap, and Substance by Adobe
Real-time 3D engine with generative content including CPU & GPU particles

### Synchronization

Synchronize any number of Modulo Kinetic VNode with a unified view from the Modulo Kinetic Designer
Synchronization with MTC or LTC timecode (optional)
Genlock/Framelock (optional)

### Outputs tools

Warping grid (keystone or curve), advanced soft edge, mask, test pattern generator, advanced color adjustment
Exclusive X-Map feature for complex video mapping
3D video-projector calibration
LED Pixel mapper (Art-Net)
Multi-user warp remote available to work simultaneously on the calibration process

### Low-latency live mixer

Dedicated multi-user remote application (Mac/PC)
Live Preview/Program/Confidence screens
Unlimited number of destinations and mix engines
Preset and Quickset
Mask & keying
Transition effects: Cut, fade, flying,…
Cut & Take buttons
Sources: Workspace, HDMI 2.0, low-latency SDI 3G/12G, NDI

### Medias

MPEG-2 (4:2:2), H264 (4:2:0)
HAP, HAP alpha, HAP Q support
Apple ProRes with 10 bits supports
Uncompressed still sequence TGA or 10 bits DPX
QuickTime uncompressed RGB, YUV8 or YUV10bits
Multichannel audio file (wav,aiff)
Still images: png, jpg, tiff
Other media: Text, scrolling text, counter/countdown/clock, web page
Automatic generation of lower resolution proxy in the Modulo Kinetic Designer for a full preview

### Show Control

Create, control, and play automated tasks for a wide number of preloaded external devices including video-projectors, matrix switchers, video processors
The devices' main parameters are available in our extensive library to ensure fast and easy control through Modulo Kinetic Designer
Trigger tasks from specific devices such as Calendar, MIDI, OSC, GPIO, Art-Net and DMX
Possibility to control Modulo Kinetic Designer with ASCII TCP/IP command with an extensive protocol

### Interactivity

Easily control the parameters of your media – including position, rotation, opacity, color,… – using external devices (OSC, Art-Net, MIDI, TCP/IP rotary encoder)
Flexible nodal programming including JavaScript block
Powerful optical tracking module (optional)
Send beacon position using PosiStageNet protocol (PSN)

### User Panel

Easily create different user panels: Drag & drop tasks, add buttons, texts, images, web pages, etc.
User panels are compatible with PC, Mac, iOS, and Android devices

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# Environmental specifications

Max altitude: 2 700 m
Operation temperature: 10°C ~ 35°C
Non operation temperature: -40°C ~ 70°C
Non operation humidity: 20% ~ 90% (Non condensing)

# Complimentary

powerCON TRUE1 cable connector
EU power cord
1 x active adaptor DP->DVI single link per output
**Warp Remote:** PC/Mac software dedicated to warping
**Kinetic Panel:** PC/Mac application to host your custom
user panels. Also available on iOS and Android


**Warranty**
**2-year return-to-base**

# Physical specifications

| Frame | 19-inch rack 4U | | |
|---|---|---|---|
| **Product** | **W** | **H** | **D** |
| Dimensions without handles | 431 mm 16.97" | 176,80 mm 6,96" | 645 mm 25,39" |
| Dimensions with handles | 482 mm 18,98" | 176,80 mm 6,96" | 690 mm 27,17" |
| Weight | ~ 29 kg | ~ 64 lbs | |
| **Shipping** | **W** | **H** | **D** |
| Dimensions | 550 mm 21,65" | 310 mm 12,20" | 800 mm 31,50" |
| Weight | ~ 31 kg | ~ 68 lbs | |

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