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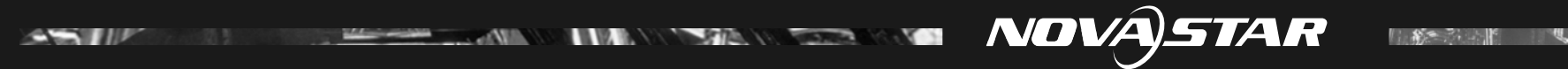
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# NovaStar NEW PRODUCTS 2023



# » NEW PRODUCTS



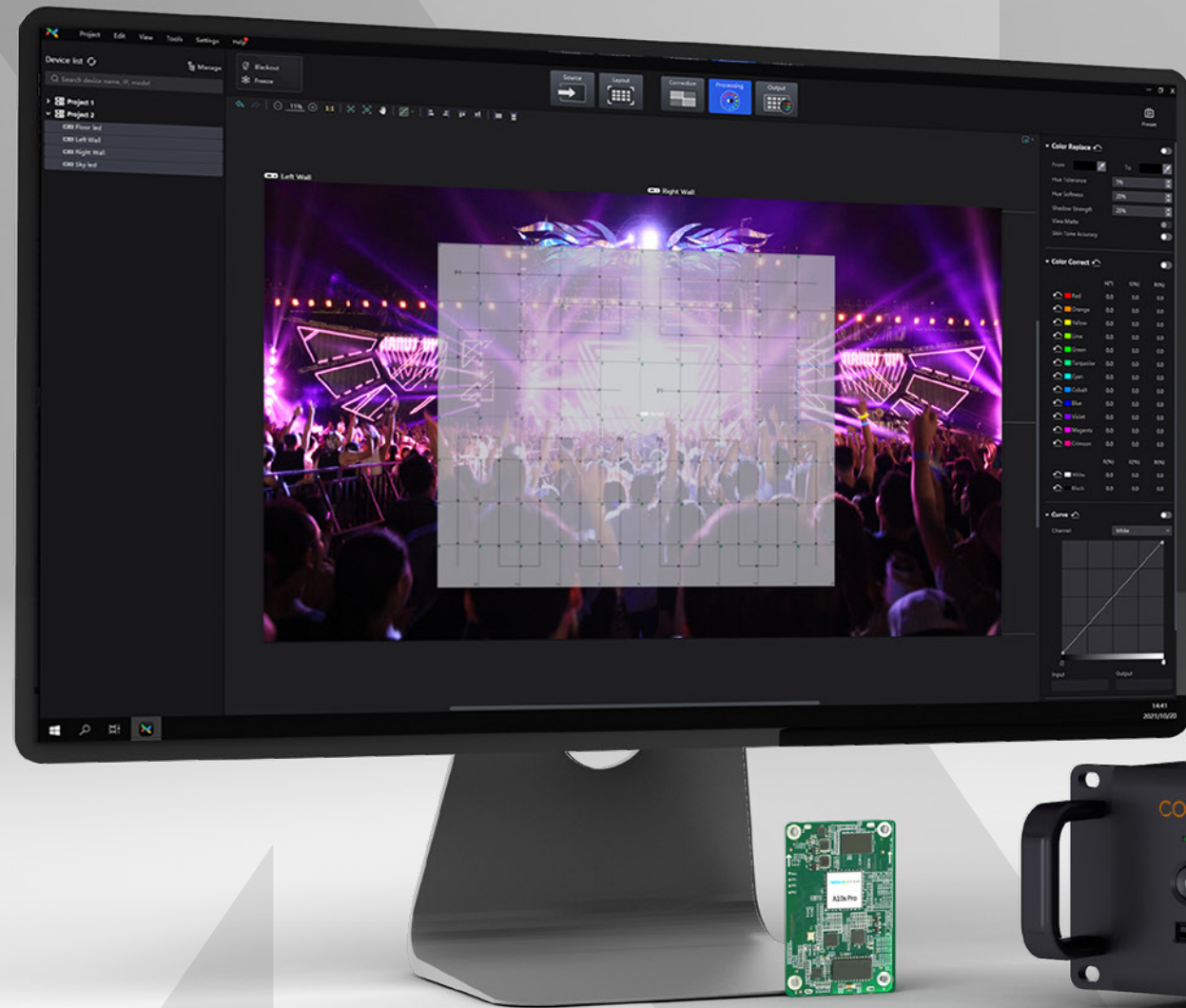
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CVT8-5G & CVT10 & CVT10 Pro & CVT4K



# VMP

SOFTWARE

# MX

SERIES CONTROLLER

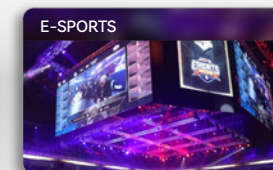
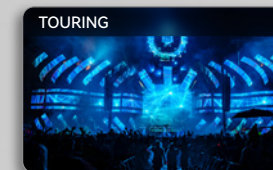
# A10s Pro

RECEIVING CARD

VMP is an all-new display control software that integrates design, management, and monitoring into one single platform.

When paired with the flagship MX Series controller and A10s Pro receiving card, an incredibly professional LED solution is realized, providing stunning image quality, precise color adjustment and an intuitive software experience.

This represents a totally new solution for managing high-end applications such as fine-pitch LED installation, studio broadcasting, touring, corporate events, virtual production and E-sports.





# DUAL BOOSTERS

FOR EXCEPTIONAL IMAGE DISPLAY

Utilizing Image Booster 2.0 and Dynamic Booster, grayscale performance, color performance and contrast ratio are dramatically improved.



Image Booster



Dynamic Booster

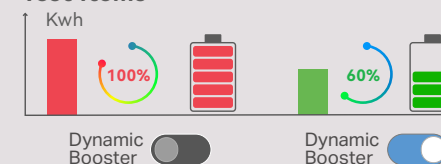
## Power saving with dynamic algorithm

With real-time analysis, brightness is adjusted dynamically frame by frame, saving 20%-40% power, extending the lifespan of an LED display.

(\* Exclusive supported by MX40 Pro or the next products)

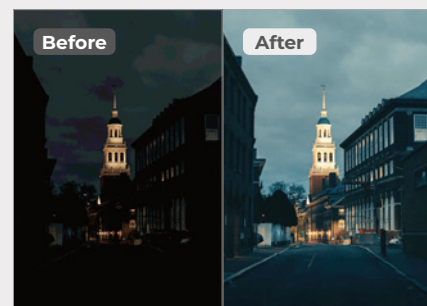


### Test items



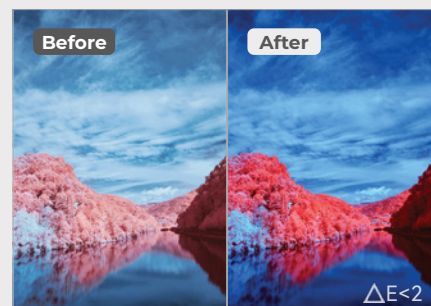
## Fine grayscale

22bit+, 64 times grayscale improvement, 0.002nits precise control, ultra-precise image for stunning realism.



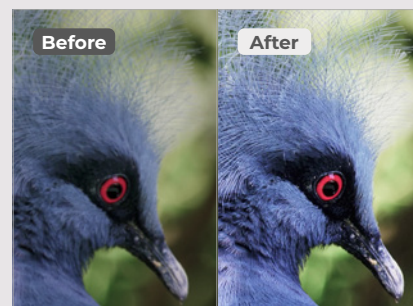
## More realistic color

Fully automated color standardization, calibration and verification, self-adapts to color gamut,  $\Delta E < 2$ .



## Higher contrast ratio

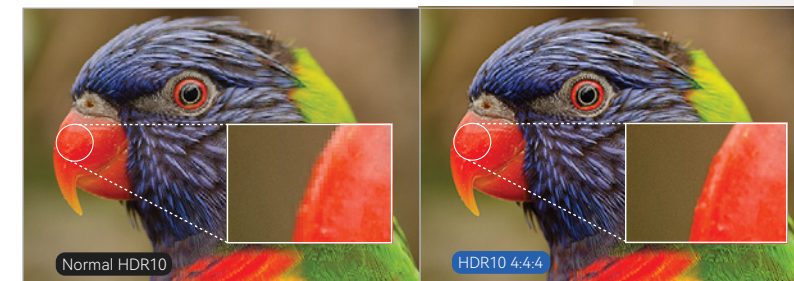
By enhancing bright and dark content details to the ideal level, an SDR source can deliver HDR-like effect, ensuring no overexposure in bright areas and no loss of detail in shadows.



# HDR10 4:4:4

VIRTUAL PRODUCTION WITH MORE REALISTIC IMMERSION

The only comprehensive 4K@60Hz 10bit 4:4:4 solution in the industry presents an ideal environment for virtual production that puts you in the scene, representing a new evolution in HDR applications.



# FLEXIBLE FRAME RATE

FOR SMOOTHER VISUALS

Supports 240Hz high frame rate, frame multiplication, frame multiplexing and adaptive frame rate, providing a super smooth filming.

(\* Exclusive supported by MX40 Pro or the next products)



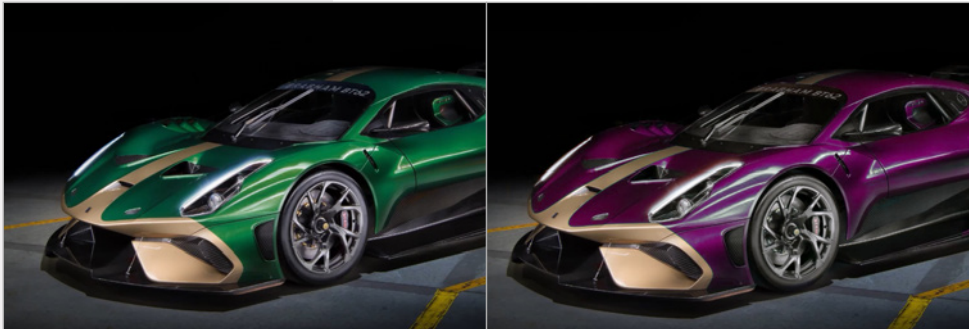


# COLOR ADJUSTMENT AT YOUR FINGERTIPS

## Color Replacement

Supports unrestricted color replacement, with minimal impact on other colors.

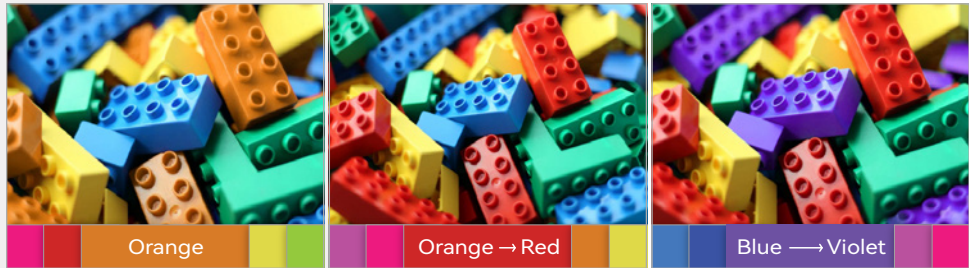
(\* Exclusive supported by MX40 Pro or the next products)



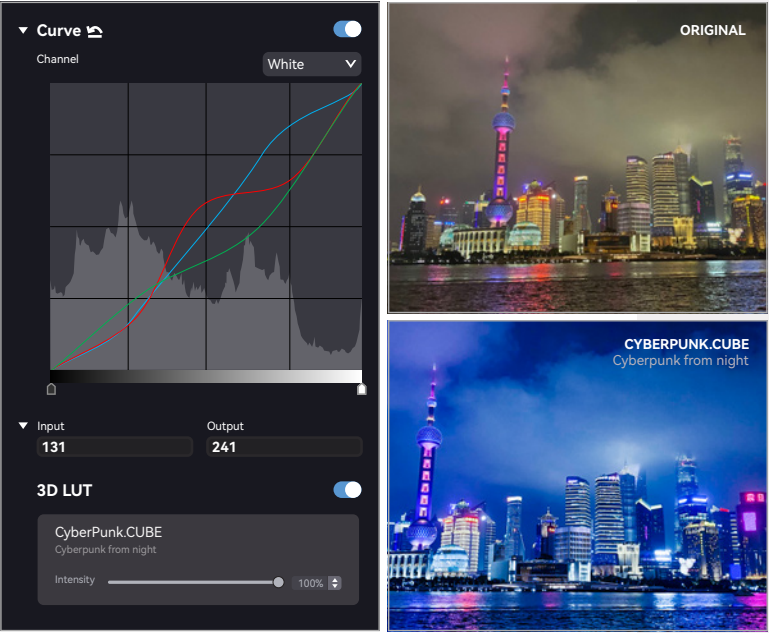
## 14CH Color Correction

Precise adjustment of hue, saturation, and brightness of primary, secondary and tertiary colors, with basic adjustment of black and white, ensuring perfect colors that retain their intended beauty.

(\* Exclusive supported by MX40 Pro or the next products)



Red	Orange	Yellow	Lime	Green	Turquoise	Cyan
Cobalt	Blue	Violet	Magenta	Crimson	Black	White

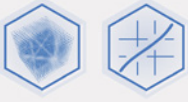


# COLOR CURVE & 3D LUT

## FOR CREATIVE SCENES

Curve adjustment and importing of 3D LUT files let you manage color in creative and artistic ways, just like a Hollywood colorist.

(\* Exclusive supported by MX40 Pro or the next products)



# CONTRAST & BLACK LEVEL

## FOR IMPRESSIVE DETAILS

Allows independent adjustment of highlights and shadows by contrast and black level, avoiding overexposure in bright content but delivering rich details in dark content.



# QUICK AND EASY SCREEN MAPPING



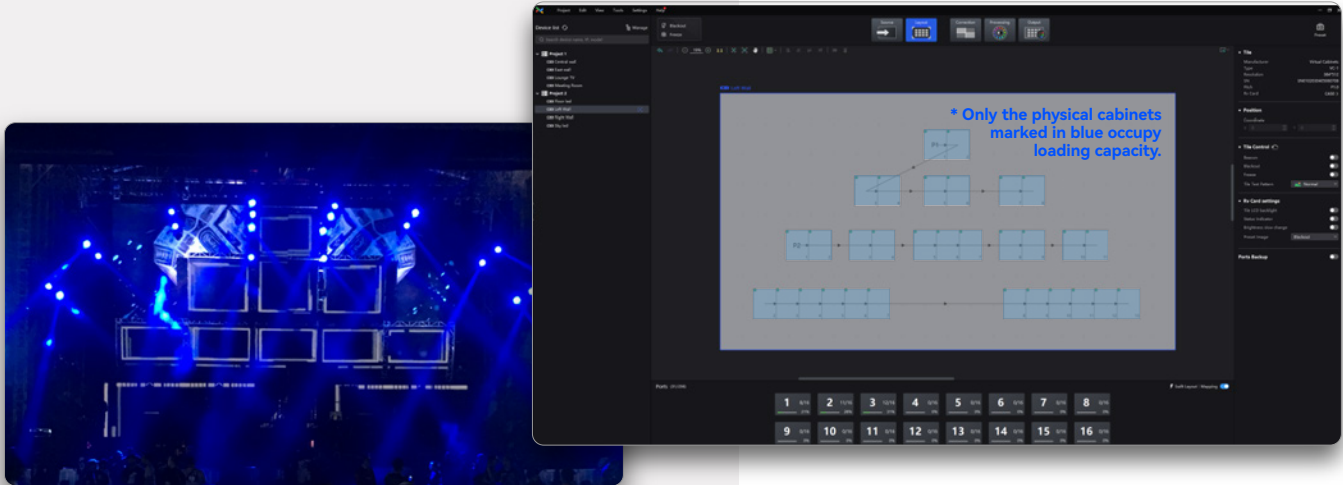
Screen mapping can be done easily on the software canvas with a mouse. Auto detection of connected cabinets and exporting of screen mapping file in advance serve to greatly increase operational efficiency.

# FREE FROM RECTANGULAR CALCULATION MAXIMIZING THE CAPACITY



Loading capacity is calculated by the physical cabinet pixels, free from rectangular limitation, helping maximize the loading capacity of controllers. No more capacity waste from leaving blank or irregular shape designs. Create without limits!

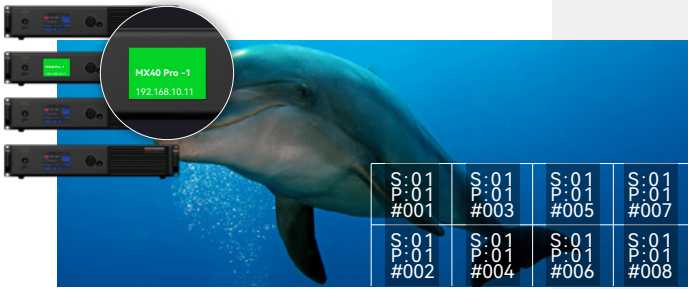
(\*Exclusively supported by A10s Pro)



# IDENTIFY TOOL

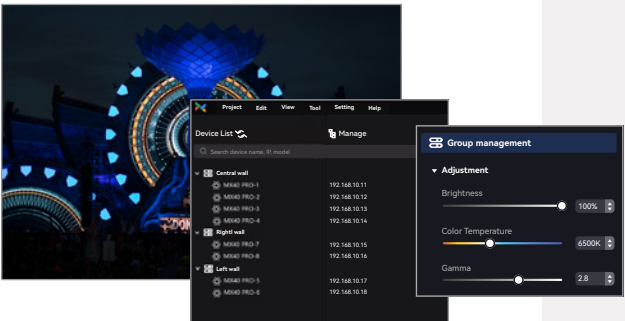
## FOR QUICK ADJUSTMENT

With the Identify Tool, cabinets and controllers can be located quickly. After receiving command from VMP software, LED screen will show the position of specific cabinets and controllers accurately, making relevant adjustment much quicker and easier.



# GROUP MANAGEMENT MADE EASY

All devices are grouped by screens, making multiple screen management easier and more efficient than before.



# VISUALIZED SEAM CORRECTION

Seam correction can be completed rapidly with an interactive and visualized design. Visually locate and select the seams simply by using a cursor, then directly view the screen to adjust the seams in the software, greatly improving efficiency.



# SCENARIO PRESETS



Save all parameters of inputs and outputs into presets, providing quick and easy retrieval with a single click.



# WHAT YOU SEE IS WHAT YOU GET



Canvas monitor and source preview allow for recognition of screen display status in real time and easy fitting of content to screen.



# A10s Pro SPECIFICATION

Loading capacity (pixel)	Max. parallel RGB data groups	Max. serial data groups	HDR	Mapping	Temperature, voltage and communication status monitoring	Dual-card backup	Automatic calibration
512×512	32	64	√	√	√	√	512×512
Pixel level brightness and chroma calibration	Calibration coefficient backup	Firmware program readback	Low latency	Image Booster Engine	Dynamic Booster	Full grayscale calibration	
32	64	√	√	√	√	√	

# SPECIFICATION

Product Model	MX30	MX40 Pro
Loading Capacity	6.5 million pixels	8.8 million pixels
Maximum Width & Height	Maximum width: 8,192 pixels Maximum height: 8,192 pixels	Maximum width: 8,192 pixels Maximum height: 8,192 pixels
Inputs	1×HDMI 2.0 (with loop through) 1×HDMI 1.4 (with loop through) 1×DP 1.1 2×3G-SDI (with loop through)	3 × HDMI 2.0 1 × DP1.2 1 × 12G-SDI
Outputs	10 × Gigabit Ethernet ports, load capacity up to 6.5 million pixels 2 × 10G optical ports, 1 as primary port and 1 as backup port 1 × SPDIF digital audio port	20 × EtherCON 4 × 10G OPT 3 × HDMI 2.0 LOOP 1 × 12G-SDI LOOP
Control	TCP/IP, RJ45	1G Ethernet, TCP/IP
Genlock	1 × IN , 1 × LOOP	Tri-level, Bi-level / Black burst
Input Bit Depth	8bit / 10bi	8bit / 10bit / 12bit
Adaptive Frame Rate	23.98 / 24 / 25 / 29.97 / 30 / 47.95 / 48 / 50 / 59.94 / 60 / 72 / 75 / 85 / 100 / 119.88 / 120 / 143.86 / 144 / 240 Hz	23.98 / 24 / 25 / 29.97 / 30 / 47.95 / 48 / 50 / 59.94 / 60 / 72 / 75 / 100 / 119.88 / 120 / 143.86 / 144 / 240Hz (*Exclusively supported by A10s Pro)
No Rectangle Limitation	√	√
3D	√	√
HDR10 / HLG	√	√
Low Latency (<1ms)	√	√
Image Booster 2.0	–	√ (*Exclusively supported by A8s, A8s-N, A10s Pro)
Dynamic Booster	√	√ (*Exclusively supported by A10s Pro)
Full Grayscale Calibration	√	√ (*Exclusively supported by A10s Pro)



LED Display Controller

LED Display Controller Software

# KU20+VMP

Flexible application  
Smart operation

- 

Support the all-new vision management platform, **VMP**
- 

6 Ethernet ports, 1080P loading capacity, finish screen configuration within 1 minute
- 

Select and click will correct the seam brightness easily
- 

Irregular screen, no rectangle limitation
- 

Calibration coefficients uploaded in seconds
- 

10G optical fiber, long-distance transmission



# KU20 SPECIFICATION

Loading Capacity	2.3 million pixels		
Maximum Width & Height	Maximum width: 3840 pixels Maximum height: 2560 pixels		
Inputs	1 × HDMI 1.3		
Outputs	6×Ethernet ports	1×10G OPT	1×HDMI 1.3
Control	1G Ethernet. TCP/IP		
Input Bit Depth	8bit / 10bit		
Adaptive Frame Rate	23.98 / 24 / 25 / 29.97 / 30 / 47.95 / 48 / 50 / 59.94 / 60 / 71.93 / 72 / 75 / 100 / 119.88 / 120Hz		
No Rectangle Limitation	√		
Low Latency(<1ms)	√		
Image Booster 2.0	√ (*Exclusive supported by A8s, A8s-N, A10s Pro)		
Full Grayscale Calibration	√ (*Exclusive supported by A10s Pro)		



# 8K LED DISPLAY SOLUTION

ALL-NEW 8K+5G CONTROL SYSTEM





# SIMPLIFIED

ONE CX80 Pro CAN HANDLE 8K LED SCREEN

8K input (7680×4320@60Hz) direct to CX80 Pro to handle 8K LED screen easily



MCTRL4K



CX80 Pro

# 5G BASE-T TECHNOLOGY BANDWIDTH INCREASED BY 5 TIMES

One Ethernet cable can load 1920×1080@60Hz LED Screen.



**1G bandwidth transmission**

One Ethernet cable can load 1/4 Full HD LED screen



MCTRL4K

**5G bandwidth transmission**

One Ethernet cable can load Full HD LED screen



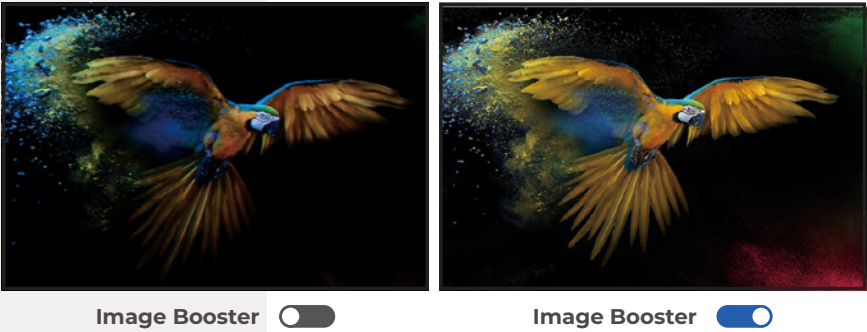
CX80 Pro



# IMAGE QUALITY INNOVATION

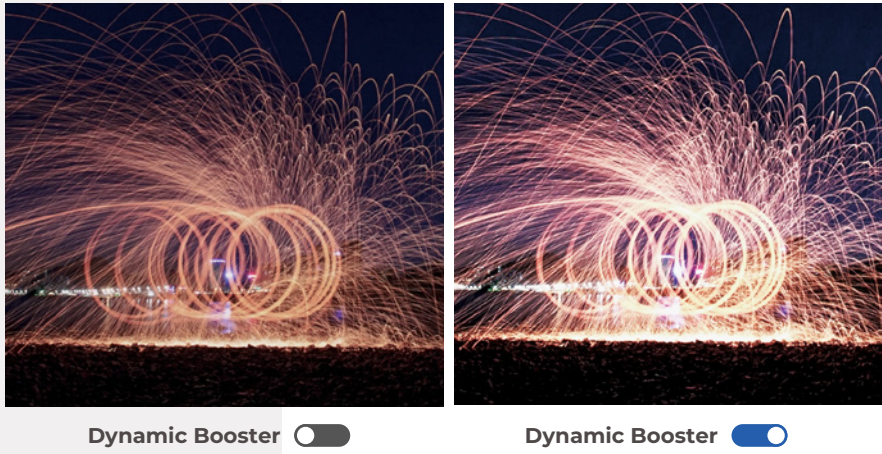
## Image Booster

- With 22Bit+ technology, dynamic contrast is increased by 64 times; 0.002nits brightness precise control brings details fully displayed even in the darkness.
- Precise grayscale technology, implements level-by-level calibration on 16bits (65536 levels) grayscale of the driver IC by utilizing colorimeter.
- Color management technology, implements colorimeter to calibrate LED color gamut, erase the color difference to restore the natural colors.



## Dynamic Booster

- Based on image analysis frame by frame, there is no overexposure in highlights, no loss of details in shadows. Higher contrast and sharper details are displayed to create a cinematic look and feel.



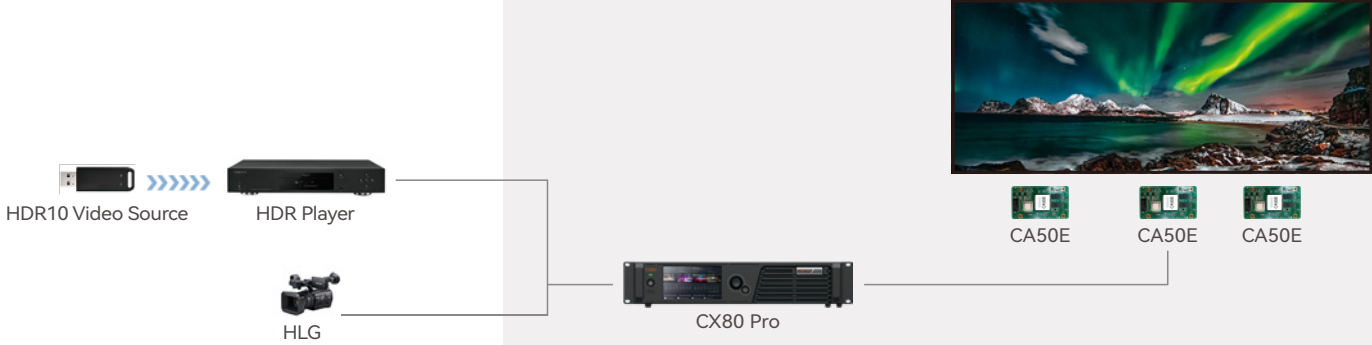
# 4K@240HZ HFR

Capture the high-speed motion and enjoy the ultimate smooth viewing experience.



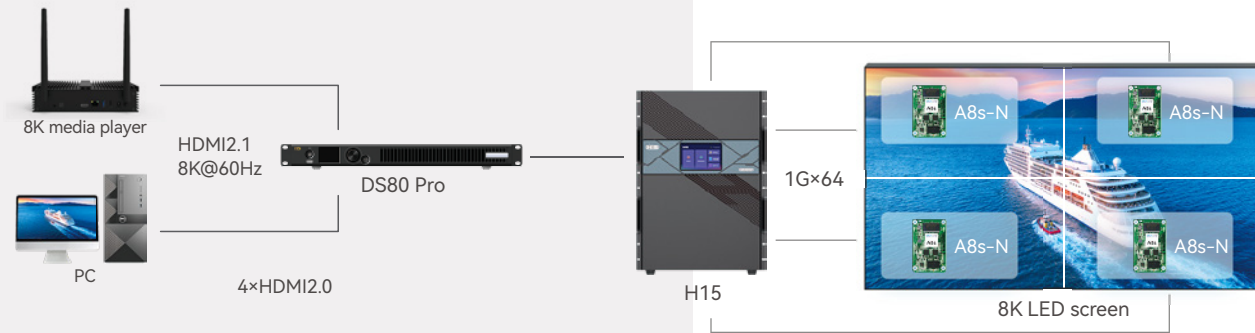
# HDR SOLUTION

It supports HDR10-Optima and HLG.



# 8K SOLUTION, FLEXIBLE OPTION SYSTEM STRUCTURE

## TRADITIONAL 8K SPLICING SOLUTION



## ALL-IN-ONE SOLUTION



# SPECIFICATION

## CX80 Pro CONTROLLER SPECIFICATION KEY FUNCTIONS

Single Interface **8K**

7680x4320@60Hz

4K@240Hz



Phase offset

**5G** BASE-T

5Gbps bandwidth output



Hot backup between devices & LAN port



Multi-view color adjustment

**40G** Optical fiber

Optical fiber long-distance transmission



Low latency



Frame Multiplexing

**HDR** HDR10 | HLG

3D

Support maximum 7680x2160@60Hz 3D images



Shutter Fit

## CA50E RECEIVING CARD SPECIFICATION KEY FUNCTIONS

- 5Gbps bandwidth, CAT6 standard cable, RJ45 port
- 1024x512 large loading capacity
- Support Dynamic booster technology
- Integrated powerful Image booster technology
- Compatible with Armor series receiving card hardware interface



CA50E



Image booster



Configuration file cloud matching

**HDR** HDR10 | HLG



Firmware cloud matching



Dynamic booster



Multiple receiving card management



Low latency



Bright and dark line adjustment



One-click system repair



Multi-batch adjustment

SPECIFICATION

Product Model	<div>CX40 Pro</div> <div></div>	<div>CX80 Pro</div> <div></div>
Loading Capacity	9 million pixels	41.6 million pixels
Input Resolution	5 × 4096 × 2160@60Hz	8192 × 4320@30Hz 4 × 4096 × 2160@60Hz
Inputs	2 × HDMI 2.0 (with loop through) 1 × DP 1.2 2 × 12G-SDI (with loop through)	Optional A: 4×HDMI 2.0 , 4×12G SDI Optional B: 1×HDMI 2.1 , 1×DP1.4
Outputs	6 × 5Gbps Ethernet ports 1 × 40Gbps optical port 1 × SPDIF digital audio port	16 × 5Gbps Neutrik 4 × 20Gbps QSFP + Neutrik
Control	TCP/IP, RJ45	TCP/IP , RJ45
Genlock	1 × IN , 1 × LOOP	1 × IN , 1 × LOOP
Input Bit Depth	8bit / 10bit / 12bit	8bit / 10bit / 12bit
Adaptive Frame Rate	23.98 / 24 / 25 / 29.97 / 30 / 47.95 / 48 / 50 / 59.94 / 60 / 71.93 / 72 / 75 / 100 / 119.88 / 120 / 143.86 / 144 / 240 Hz	23.98 / 24 / 25 / 29.97 / 30 / 47.95 / 48 / 50 / 59.94 / 60 / 72 / 75 / 100 / 119.88 / 120 / 143.86 / 144 / 240Hz
No Rectangle Limitation	√	√
3D	√	√
HDR10 / HLG	√	√
Low Latency(<1ms)	√	√
Image Booster 2.0	–	√
Dynamic Booster	√	√
Full Grayscale Calibration	√	√

CA50E  
SPECIFICATION

Loading Capacity	512 × 768@60Hz	Calibration Coefficient Backup	√
Parallel RGB Data Groups	32	Firmware Program Readback	√
Serial Data Groups	64	Individual Gamma Adjustment For RGB	√
HDR	√	18bit+	√
Mapping	√	22bit+	√
Temperature, Voltage And Communication Status Monitoring	√	Precise Grayscale	√
Dual-Card Backup	√	Color Management	√
Automatic Calibration	√	Full Grayscale Calibration	√
Pixel level Brightness And Chroma Calibration	√	Shutter Fit	√
		Dynamic Booster	√



Simplicity Meets Power

# VX SERIES



# FEATURES

## Large Loading Capacity

VX1000:  
6.5 Million Pixels  
10 Ethernet ports  
Maximum width 10,240 pixels  
Maximum height 8,192 pixels

VX600:  
3.9 Million Pixels  
6 Ethernet ports  
Maximum width 10,240 pixels  
Maximum height 8,192 pixels

## 3 Layers

VX1000:  
Input 4K×1K@60Hz  
3 layers with free scaling

VX600:  
Input 2K×1K@60Hz  
3 layers with free scaling

## 3 Working Modes

Free switching among Video Controller & Bypass & Fiber Converter modes

## Flexible Control

Support mixed control of Ethernet cable and USB cable







## Ultra-Low Latency

Down to 20lines with low latency on

## Front Panel Color Adjustment

Input color adjustment, including brightness, contrast, saturation, and hue. Screen color adjustment, including Gamma, Temperature, RGB

# SELECTION GUIDE

	VX400	VX600	VX1000
			
Loading Capacity	2,600,000 pixels	3,900,000 pixels	6,500,000 pixels
Layers	Two 2K × 1K layers 	Three 2K × 1K layers 	Three 4K × 1K layers 
Input	1 × 3G-SDI 2 × HDMI 1.3 1 × DVI 1 × OPT1 input	1 × 3G-SDI 2 × HDMI 1.3 1 × DVI 1 × OPT1 input	1 × 3G-SDI 2 × HDMI 1.4 2 × DVI (HDMI 1.4) 1 × OPT1 input
Output	4 × Ethernet port 1 × HDMI1.3	6 × Ethernet port 1 × HDMI1.3	10 × Ethernet port 1 × HDMI1.3
Optical Fiber Ports	2 × 10G OPT	2 × 10G OPT	2 × 10G OPT
Control Connectors	Ethernet USB (input & output) Genlock (IN & LOOP) Light Sensor	Ethernet USB (input & output) Genlock (IN & LOOP)	Ethernet USB (input & output) Genlock (IN & LOOP)

# **H** SERIES **DESIGN IT YOUR WAY.**

Most integrated  
Modular design  
4K / 8K and more  
Extreme user friendly





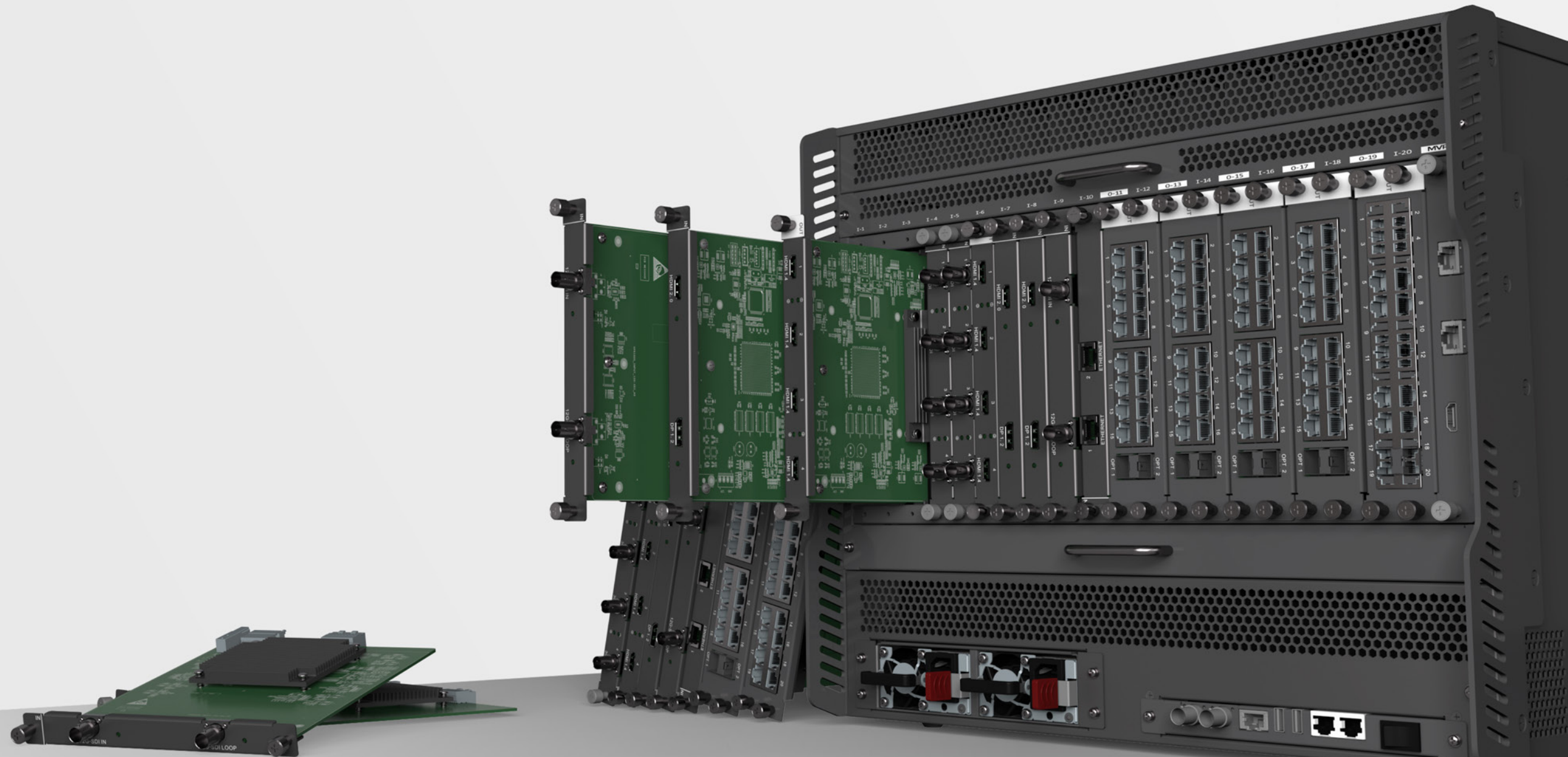
# MODULAR DESIGN

## Input cards

HDMI 2.0 & 1.3  
DP1.2 & 1.1  
3G & 12G SDI  
DVI  
IP stream  
.....

## Output cards

16 RJ45 + 2 OPT  
20 RJ45  
MVR card



# FREE LAYERS

SIZE & POSITION

16×2K per output card  
4×4K per output card

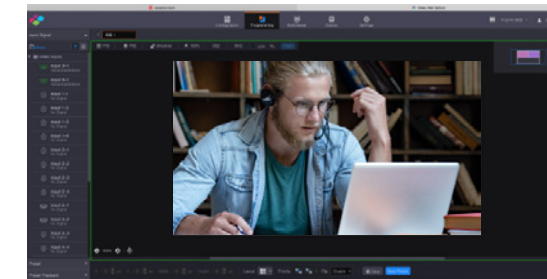


# UP TO 2000 PRESETS

0-1S CUSTOM  
TRANSITION TIME



# INPUT & OUTPUT MULTI-VIEWER



WEBPAGE



LCD MONITOR



FRONT PANEL

# FIBER SOLUTION



CVT4K-S



H5



10G SFP per Channel      Each = 8 Ethernet ports

# SELECTION GUIDE

	H2	H5	H9	H15	H15 (Enhanced)
Chasis	2U	5U	9U	15U	15U
Max. Input Cards	4 input cards	10 input cards	15 input cards	30 input cards	30 input cards
Max. Output Cards	2 output cards	3 output cards	5 output cards	10 output cards	16 output cards
Max. Layers	32 Layers	48 Layers	80 Layers	160 Layers	160 Layers
Max. Loading Capacity	26,000,000 pixels	39,000,000 pixels	65,000,000 pixels	130,000,000 pixels	208,000,000 pixels



FIBER CONVERTERS

# FIBER SOLUTION

Perfect pair for **ALL**

CVT10 Pro is a brand new optical fiber converter, designed to work seamlessly with NovaStar controllers and processors to provide long-distance data transmission solution and to keep cabling simple.

It is equipped with 10 EtherCon and 2 opticalCON. Optical Ports are compatible with LC-LC interface.

It supports primary and backup units working simultaneously to ensure the safety and stability of data transmission.

With new industrial design and IP65 waterproof, CVT10 Pro is sturdy and durable. It can be easily truss-mounted, suiting the outdoor environment perfectly.



IP65



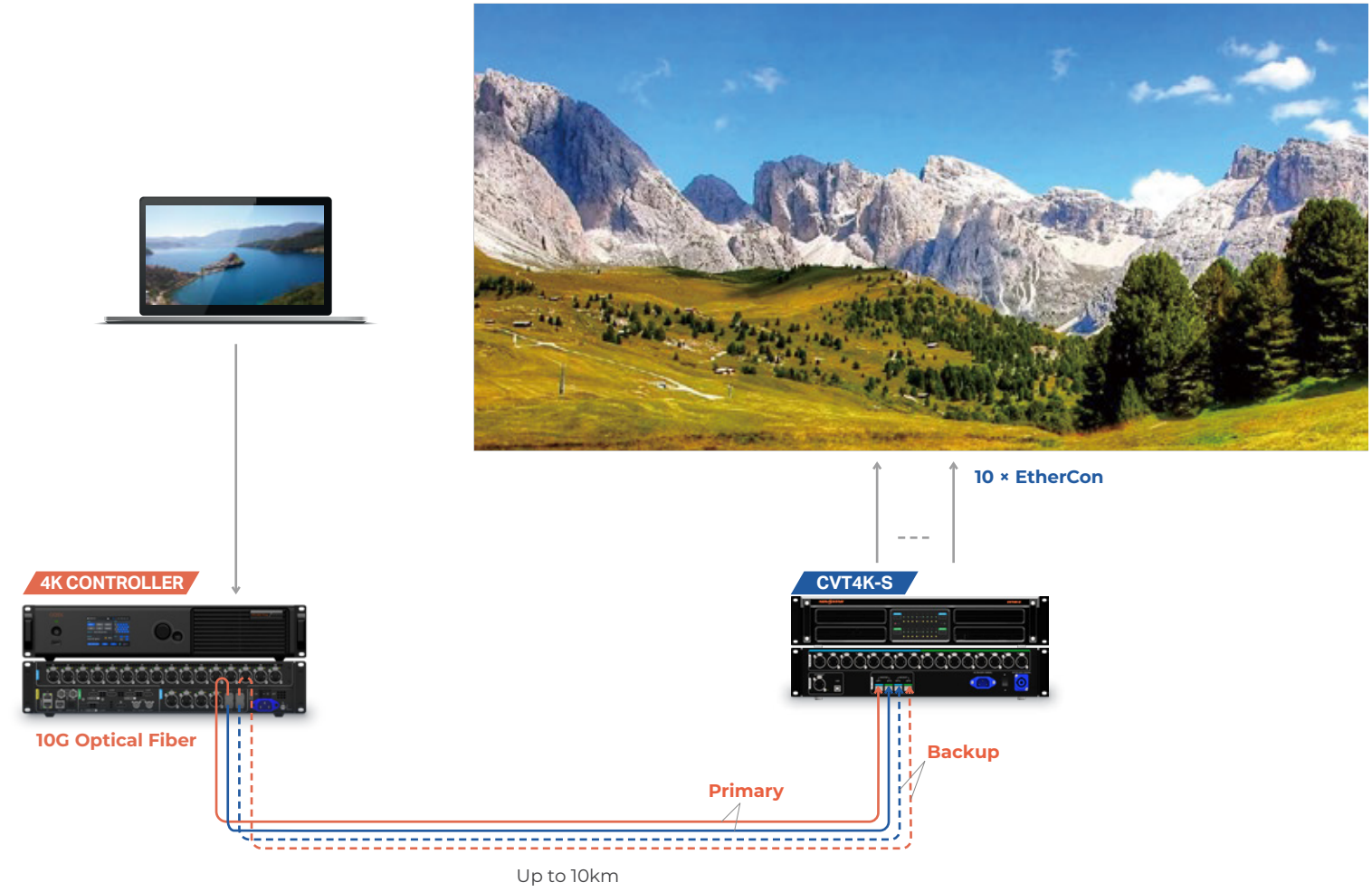
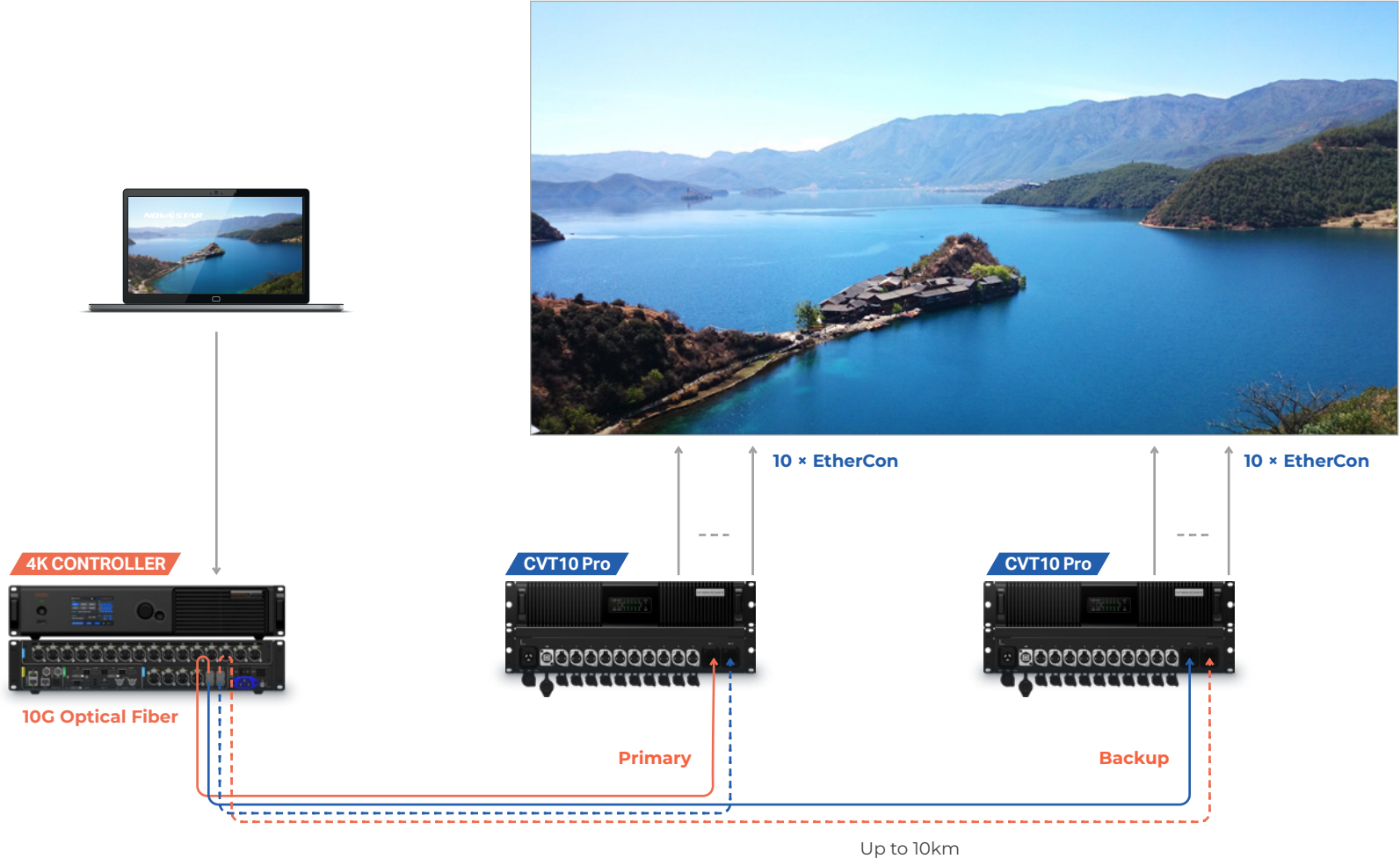
Backup



Neutrik




# HIGHLY RELIABLE FIBER SOLUTION



SELECTION GUIDE

10G FIBER CABLES		
	Single Mode	Multi Mode
Transmission Distance	10KM	300M
Recommended Fiber	OS1/OS2	OS3/OS4
Wire Diameter	9/125um	50/125um
Single/Dual core	Single-mode dual code	Multi-mode dual code
Interface Type	LC	LC
Insert Loss	≤0.3db	≤0.2db
Return Loss	≥45db	≥45db

SELECTION GUIDE

10G CONVERTERS				
	CVT8-5G	CVT10	CVT10 Pro	CVT4K
				
I/O	· 1 × OPT · 8 × RJ45 · 1 × USB	· 2×OPT (Single/Multi mode) · 10×R45 · 1×USB	· 2×OPT (Single/Multi mode) · 10×EtherCon · 1×USB	· 4×OPT (Single/Multi mode) · 16×EtherCon · 1×USB · 1×ETHERNET
Ports	8 × RJ45	10×RJ45	10×Neutrik	16×Neutrik
Power Socket	PowerCON×1	PowerCON×1	PowerCON×1	· 3pin power socket×1 · PowerCON×1
Power Consumption	33W	22W	22W	25W
Working Temp	-20 C ~+70 C (-4 F ~+158 F )	-20 C ~+70 C (-4 F ~+158 F )	-20 C ~+70 C (-4 F ~+158 F )	-20 C ~+70 C (-4 F ~+158 F )
Working Humidity	10%RH~80%RH, No condensing	10%RH~95%RH No condensation	10%RH~95%RH IP65	10%RH~95%RH No condensation
Size	1U (254.3 × 50.6 × 290.0 mm)	1U (254.3×50.5×290.0mm)	2U (482.6×88.1×280.0mm)	2U (482.6 × 96.0× 377.0mm)
Weight	2.26 kg	2.1kg	5.9kg	4.6kg
Water Resistance	/	/	IP65	/
ACInput	100-240V~, 50/60Hz 1.5A	100-240V~.50/60Hz 0.6A	100-240V~.50/60Hz 1.5A	100-240V~.50/60Hz 2.5A
Installation	· Installed in rack	· Installed in rack (2units assembled)	· Installed in rack · Eagle Claw Hook hang on truss	· Installed in rack
Compliance	CCC、RoHS、FCC、 CE、CB、IC、UL、CB	RoHS、FCC、CE、 IC、RCM	RoHS、FCC、CE、CB、 IC、RCM、KC、UL	RoHS、UL&CUL、FCC、 CE、EAC、CB、IC、RCM