



## The Uplifting and Modular X10, Driven by Emotion.

The industry's most powerful 4K Ultra Slow Motion System to support both Continuous Super Slow Motion (SSM) and Ultra Slow Motion (USM) at frame rates up to 1000 FPS



### For Vision Research® Phantom Flex4K

B4, PL, F Mounts

Up to 120 FPS real-time continuous SSM in 4k

Up to 600 FPS real-time continuous SSM in 1080p/60

Up to 1,000 FPS Ultra Slow Motion in 4K

Up to 2,000 FPS Ultra Slow Motion in 1080i/1080p

### Full 4k CMOS sensor

Up to 1000 FPS replay in 4k

### Unique Integration with Industry-Leading Production Servers



#### CAMERA

Latest generation 4K camera

B4, PL, F Mounts

Up to 1000 FPS in ultra slow motion mode in 4k

Up to 600 FPS real-time continuous  
super slow motion in 1080p/60

SMPTe Fiber Optic Connection

4K Single CMOS Sensor

Red and Green Tally

Built-in Intercom

2 microphone inputs

Video returns



#### OCP

Joystick Control (Iris, Black, Preview)

RGB & Master Gains

RGB & Master Pedestals

Auto White/ Black Balance

Gamma Control, Black Gamma

Standard Color Matrix

Saturation

Flare compensation

Detail enhancement

Frame Rate/Shutter Control

Setup settings (Format, Genlock, etc.)

User presets

Remote updates



#### CCU

HD-SDI Live Signal

Size: 2U

10x output to the EVS XT3 live  
production server, with UMotion

Four return video inputs

Ethernet connection  
between CCU and OCP

Bi-level, tri-level Genlock

Intercom

Up to 1,000m between  
camera and CCU

Remote updates

## CONTINUOUS RECORDING MODE

	▼ FRAME RATE 2X	▼ FRAME RATE 3X	▼ FRAME RATE 6X	▼ FRAME RATE 10X
<b>HD</b>				
1080i50/p50	—	150	300	500
1080i59/p59 /i60/p60	—	180	360	600
720p/50	—	150	300	500
720p59/60	—	180	360	500
<b>4K</b>				
2160p50	100	—	—	—
2160p59/60	120	—	—	—

## LIVE & REPLAY MODE

Internal memory: 64GO (two times more than the previous generation)

	▼ TYPICAL CASE (500 FPS)	▼ MAX FPS
120x720	88,2s	14,7s at 3000 fps
1920x1080	39,2s	9,8s at 2000 fps
4096x2160 (4K)	9,8s	4,9s at 1000 fps

## CAMERA

### ▼ GENERAL

#### PHANTOM FLEX 4K

Sensor	CMOS Sensor with 6.75µm pixel
Effective picture elements	4096 x 2304
Lens mount	B4 Mount, PL Mount, Nikon F Mount
8-inch Color Viewfinder	Sony OLED, or any HD-SDI viewfinder
Operation temperature	-20°C – +50°C
Dimensions (W x H x L)	292 x 140 x 200 mm
Weight	6,3 Kg (14lbs)

#### CAMERA BOX

Dimensions (W x H x L)	506 x 195 x 95 mm
Weight	2,8 Kg
Temperature	-20°C – +45°C

Mounting Native mounting holes  
Heavy duty frame (optional)

### ▼ INPUT/OUTPUT CONNECTORS

Viewfinder connector	3G HD-SDI BNC
Output DC (12V/1.5A) + Tally	5-pin Hirose
Lens connector	12-pin Hirose
Hybrid fiber connector	LEMO® EDW.3K.93C.TLC / SMPTE 304 Tajimi / Fischer / Rosenberger connector (optional)

### ▼ TRANSMISSION

Transmission cable SMPTE 311 Hybrid Cable up to 1,000m

## CAMERA CONTROL UNIT (CCU)

### ▼ GENERAL

Dimensions (W x H x D)	438 (19inch rack) x 88 (2U) x 465 mm
Weight	7 Kg (15.43 lb)
Operation temperature	0-40 degrees C (32-104 F)
Operation humidity	Max 80 % (non-condensing)
<b>▼ CONNECTORS</b>	
SDI-in	4 x BNC 1ch 1.0Vp-p 75 Ω
SDI-out	6 x BNC 1ch 1.0Vp-p 75 Ω
X10 Interface to XT3	10 BNC
AES out	1 BNC
Control data	RJ45 x 3
Tally (R, G)	Input Relay Contact
Genlock	SD Analog Black Burst (Bi-Level) or HD Tri-Level Sync
Hybrid Fiber Connection	LEMO FMW.3k93C. SMPTE 304 Tajimi / Fischer / Rosenberger Connector (optional)

### ▼ VIDEO OUTPUT & INPUT FORMATS

Video Output & Input Formats	<b>HD</b> — HD-SDI 1080i 50 / 59 / 60 HD-SDI 1080p 50 / 59 / 60 HD-SDI 720p 50 / 59 / 60
	<b>4K</b> — HD-SDI 4Kp 50 / 59 / 60

### ▼ INTERCOM - AUDIO

Line Level	+4dBu Nominal
Intercom ENG/PROD	4-wire System (Balanced)
Intercom PGM	Balanced Input
Microphone output	2 x 3-pin XLR
Head set connector	5-pin XLR
Volume control	ENG, PROD, PGM

### ▼ POWER

Power requirements	AC 80 V to 240V, 47 to 63 Hz
Power connector	IEC type, 3-pin male
Power consumption	280VA max. with camera

## OPERATIONAL CONTROL PANEL (OCP)

User interface	Graphical TouchScreen, Rotary Knobs
Power connector	XLR 4-pin 12 Vdc
Control Data	RJ45 / Up to 100m between CCU and OCP
Dimensions (W x H x L)	99 x 116 x 355 (323) mm
Weight	2 kg (4.41 lb)

## INTERCOM - AUDIO

Head set connector	5-pin XLR
Microphone input	2 x 3-pin XLR
Volume control	ENG, PROD, PGM