



The Uplifting and Modular X10, Driven by Emotion.

The ultra slow motion solution developed for very high frame-rate sports applications.



Ultra Slow Motion

Live and replay dual output

Up to 5,600 fps in 720p / Up to 2,600 fps in 1080i

Instant replay

Segmented memory

Ramping of speed within a replay

Built-in intercom

Also optimized for shoulder-mounted portable shooting

Unique Integration with Industry-Leading Production Servers



CAMERA

Vision Research latest generation HD camera, v-Series
 B4, PL, F Mounts
 Up to 2,600 FPS in 1080i
 Up to 5,600 FPS in 720p
 SMPTE Fiber Optic Connection
 Full HD 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 Replay Signal
 HD-SDI Live Signal
 Size : 2U
 Only One Channel Necessary on Disk Recorder
 Two video return inputs
 Ethernet connections between CCU and remotes
 Bi-level, Tri-level Genlock
 Intercom
 Up to 1,000m between camera and CCU
 Remote updates



SLOW MOTION REMOTE

User-Friendly Slow Motion Remote
 Easy Sequence Selection
 Auto-clip to EVS server
 Instant Replay
 Ramping of Speed Within a Replay
 Cueing System
 Multi-block Management
 Compatible with EVS Hypermotion Mode

	FULL HD 1080i		HD 720p	
	16 GB	32 GB	16 GB	32 GB
300 fps	17 sec	33 sec	40 sec	81 sec
500 fps	10 sec	20 sec	24 sec	48 sec
1,000 fps	5 sec	10 sec	12 sec	24 sec
Max fps	2,548 fps 1.9 sec	2,548 fps 3.9 sec	5,291 fps 2.3 sec	5,291 fps 4.6 sec

CAMERA (PHANTOM CAMERA)

GENERAL

Sensor	12-bit CMOS with 10µm pixel
Effective picture elements	1920 x 1080
Lens mount	B4 Mount, PL Mount, Nikon F Mount
Memory	16 GB standard - 5 sec @ 1,000 fps in 1080i; 32 GB optional
Recording Frame Rate	Up to 5,600 fps (in 720p)
8-inch Color Viewfinder	Sony OLED, or any HD-SDI viewfinder
Operation temperature	0-40 degrees C (32-104 F)
Mounting	V-Wedge Quicklock Mount
Dimensions (W x H x L)	180 x 325 x 370 mm
Weight	9 Kg (19.84 lb)

INPUT/OUTPUT CONNECTORS

Viewfinder connector	BNC type, 1.0Vp-p 75 Ω
DC (12V/1.5A)	5-pin Hirose
Lens connector	12-pin Hirose
Hybrid fiber connector	LEMO EDW.3K.93C.TLC / SMPTE 304 Tajimi / Fischer / Rosenberger connector (optional)

INTERCOM - AUDIO

Head set connector	5-pin XLR
Microphone input	2 x 3-pin XLR / 0 to 60 dB gain / 48V switchable supply / maximum input level 9dBu
Volume control	ENG, PROD, PGM

TRANSMISSION

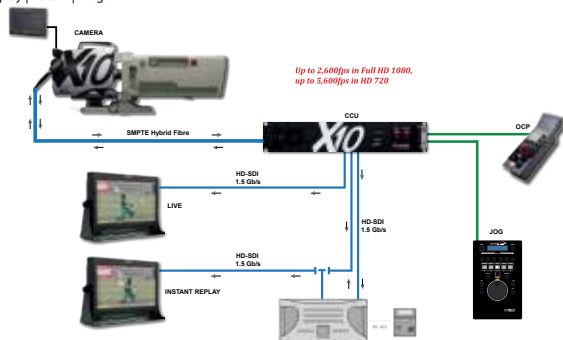
Transmission cable	SMPTE 311 Hybrid Cable up to 1,000m
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Shed boxes available to use with ordinary single mode fiber (extended distance between CCU and camera)

X10 USM CAMERA SYSTEM WORKFLOW

Live & Replay | Return | Program



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)

CONNECTORS

SDI-out	2 x BNC 1ch 1.0Vp-p 75 Ω
SDI-in	2 x BNC 1ch 1.0Vp-p 75 Ω
Control data	RJ45 x 2
Tally (R, G)	Dry-contact Inputs
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	HD-SDI 1080i 50 / 59.98 / 60 HD-SDI 720p 59.98 / 60
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INTERCOM - AUDIO

Line Level	+4dBu Nominal
Intercom ENG/PROD	4-wire System (Balanced)
Intercom PGM	Balanced Line Input / maximum input level 13 dBu
Microphone preamp output	2 x 3-pin XLR / Balanced line level / Maximum output level 13dBu

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	Joystick, 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)

SLOW MOTION CONTROL

Controls	Jog, Shuttle, Buttons
Power Connector	XLR 4-pin 12 Vdc
Control Data	RJ45 / Up to 100m between CCU and slow motion remote
Dimensions (W x H x L)	164 x 80 x 255 mm
Weight	1.5 kg (3.3 lb)