



XL ULTRA



Cinematic Power. PTZ Flexibility.

BirdDog XL Ultra is a cinematic-grade PTZ camera built for high-end broadcast, XR stages, virtual production, and premium studio installs. At its core is a large-format 4/3" CMOS sensor paired with a 20x optical zoom (40x in HD), OLPF, and ND filters — delivering cinematic depth of field, outstanding clarity, and exceptional low-light performance.

NDI HX3



Cinematic Sensor. PTZ Form.

A cinematic-grade PTZ camera built for high-end broadcast, XR stages, virtual sets, and studio installs. At its core: a large-format 4/3" CMOS sensor, the kind found in digital cinema cameras paired with a 20x optical zoom (up to 40x in HD). The result? Filmic depth of field, incredible clarity, and outstanding low-light performance.



Smooth. Silent. Always Cool.

High-end PTZs are often whisper-smooth or whisper-loud. XL is both ultra-precise and eerily silent, thanks to premium motors and a next-gen thermal design. No whirring. No distractions. It stays cool and quiet. All the drama should be in the scene, not behind it.



Ready for Studio and XR.

Genlock and Timecode keep multi-cam workflows perfectly in sync. FreeD makes XL a natural fit for AR/XR environments. An integrated OLPF filter reduces moiré when shooting against high-res LED walls. It's a studio-native that's XR-ready.



Two 4K Cameras. One Body. Zero Hassle.

XL doesn't just give you one camera—it gives you two. Alongside the main PTZ is a built-in 100° panoramic camera powered by a 1/1.8" sensor—larger than what many PTZs use as their primary. Both cameras shoot in 4K60. Both are independently controllable and output simultaneously as separate sources. Whether over IP or baseband, mix as needed.



BirdDog DNA, Evolved.

XL features our most refined design yet. The RGB Halo Tally is now fully customizable. Side-mounted dual e-ink displays show IP, logo, or camera ID even when powered off. A rear Tally with snap-on stencil caps makes camera IDs clear in multi-cam setups. It's all about clarity and control.



Mount Up. Stay Clean. Stay Professional.

The optional XL Mount System is engineered to disappear. It hides cables, locks down tight, and fits truss, tripod, ceiling, or studio installs. Standard 1/4"-20 and 3/8" threads included.



AI That Moves Like a Human.

XL features our most advanced AI tracking engine yet. Tune its behavior to match the moment. Lock on tight, float gently, or follow dynamically. From a CEO at the podium to a guitarist in full flight, XL adapts with precision and personality. Trained on real-world motion, it doesn't just track – it performs. This is AI that feels like a human operator. Not just a bounding box.



Unmatched Connectivity.

With 12G-SDI, 3G-SDI, HDMI, and optical 12G-SDI via SFP+, XL plugs into any setup. Balanced XLR with phantom power, PoE++, and SFP for long runs. BirdDog UI brings full control, and a next-gen processor means future firmware is ready to roll. You'll run out of cables before you run out of options.

NDI[®] HIGH BANDWIDTH

Choose Your NDI[®] Flavour. Or Use Both.

XL Ultra streams in NDI[®] High Bandwidth and NDI[®] HX3 simultaneously, giving you ultimate flexibility. Send pristine, full-quality feeds to your production team while delivering bandwidth-efficient streams to remote contributors, backup systems, or web platforms — all at the same time, with zero compromise.



XL ULTRA



Feature	Specification
PRIMARY CAMERA	
Image Sensor	4/3" Sony CMOS 5K Sensor
Lens	20x Optical Zoom Lens
Video Format	2160p60
Additional Resolutions	2160p60, 59.94, 50, 29.97, 25 1080p60, 59.94, 50, 30, 29.97, 25 1080i60, 59.94, 50 720p60, 59.94, 50
Focal Length	9.8mm ~ 186mm
Aperture	f2.8~f4.5
Focus	Auto, Manual
AF Method	PDAF (Phase Detection Auto Focus)
Horizontal Field of View	71° ~ 4°
Exposure	Auto, Shutter Priority, Iris Priority, Manual, BLC, WDR
Shutter Speed	1/1 - 1/10,000s
3D Noise Reduction	Yes
SNR	300lux~600lux 45~50dB
Effective Pixels	20.89 MP
Vertical Field of View	40° ~ 2°
Diagonal Field of View	79° ~ 4.5°
ND Filter	Yes 1, 1/4/ 1/16, 1/62
Optical Low Pass Filter (OLPF)	Yes
Image Stabilization	Digital
Digital Zoom	16x Supersampling
Filter Ring	Yes

SECONDARY PANORAMIC CAMERA	
Image Sensor	1/1.8" Sony CMOS 4K sensor
Lens	Fixed
Focal Length	4.4mm
Aperture	f2.0
Horizontal Field of View	85°
Vertical Field of View	53°
Diagonal Field of View	93°

MECHANICAL	
Pan/Tilt Rotation	±170°, -30° ~ +90°
Pan Control Speed	0.05° ~ 120°/s
Tilt Control Speed	0.05° ~ 90°/s
Preset Number	256
Integrated Tally Light	Halo Style, RGB (Front), Number Style (Rear)

Feature	Specification
e-Ink Display	2x 3" Grayscale e-Ink Displays
Pan/Tilt Drive System	Ultra-fine drive
Quietness	NC 50 (with a sound pressure level corresponding to the 500Hz ~ 1kHz frequency band being 49 ~ 51 dB)

I/O INTERFACE	
Video Output Interfaces	12G-SDI, 3G SDI x 2, HDMI 2.0, USB-C, 1Gb RJ45, SFP+ Cage (Ethernet)
Video Compression Formats	H.264, H.265, SpeedHQ
Network Interfaces	1x 1GbE Adaptive Ethernet port, PoE++, 1x SFP+ Cage (Ethernet)
Encoder Network Protocols	High-Bandwidth NDI® (SpeedHQ), NDI® HX3, NDI® HX2, SRT, RTSP, RTMP
Decoder Network Protocols	NDI® HX3, NDI® HX2
Decoder Supported Resolutions'	1080p @ 60 / 59.94 / 50 /30 / 29.97 / 25fps, 720p @ 60, 59.94, 50fps
Control Interfaces	1Gb Ethernet, SFP+, RS232 (input & output), RS422, TYPE-C (UVC)
Control Protocols	VISCA-IP, NDI®, VISCA Serial, Pelco-P, Pelco-D
FreeD Protocol	Supported - UDP / NDI® Embedded
Analogue Audio	Balanced Audio XLR x2
Digital Audio	Embedded with Main and Secondary HDMI, 12G-SDI, Network Video, USB (UVC)
Genlock	Supported
Timecode	Supported
SD Card Slot	MicroSD - Recording supported
Kensington Lock	Supported
WebUI Control	Integrated BirdDog BirdUI 2.0
API Support	BirdDog RESTful API 2.0, Crestron Libraries, Qsys Libraries

AI FEATURES	
Presenter Tracking	Advanced with Secondary camera assistance
Auto-Framing	Advanced with Secondary camera assistance
Zone Tracking	Supported
Gesture control	Supported

GENERAL	
Environmental Operation	Internal
Input Voltage	DC-12V, PoE++
Input Current	< 60W
Power Consumption	12V 5A
Working Temperature	0°C ~ 40°C (32°F ~ 105°F)
Working Humidity	~20% ~ 80% (Non-condensing)
Dimension (W*H*D)	218.6 x 291.6 x 263.3mm (8.61 x 11.48 x 10.37in)
Weight	≈4KG