

Explore

4/3" Sensor 4K PTZ Camera for Broadcast & High-End Production



20x 4K60 Hybrid AF Auto-tracking FreeD SFP+/12G-SDI/HDMI/NDI®/NDI®HX3/XLR

Broadcast Level PTZ Camera Disrupts AV Industry

Telycam's Explore 500 advanced 4K PTZ camera is engineered to meet the demanding quality and feature requirements of broadcast and high-end production environments.

Building on the powerful capabilities of earlier Explore models, the Explore 500 features a large 4/3" Sony sensor and advanced hybrid auto-focus technology to deliver exceptional detail, cinematic depth, and highly accurate subject tracking. The Explore 500's precision brushless PTZ motor system eliminates robotic motion commonly found in conventional PTZ cameras, enabling fluid, broadcast-grade camera movement. Integrated Optical Low-Pass Filter (OLPF) reduces moiré and aliasing artifacts when capturing LED walls, display panels, and fine-pattern backgrounds, ensuring clean and natural image reproduction for modern broadcast and virtual production environments.

For operator efficiency, the Explore 500 features a touch-friendly web UI optimized for tablets and smartphones, enabling intuitive real-time control of PTZ movement, focus, and tracking directly from the live video feed.

The Explore 500 offers a full suite of professional interfaces including 12G-SDI with Genlock, NDI® High Bandwidth, NDI® HX3, HDMI, SFP+, and USB, enabling seamless integration into both traditional broadcast systems and modern IP-based production workflows.

Features & Benefits:

High-Performance Sensor and Image Processor:

The Explore 500 features a high-performance 4/3" Sony sensor that delivers exceptional image depth, cinematic shallow depth of field, and precise color reproduction for professional broadcast applications.

Fast Hybrid Auto-Focus

The Explore 500 combines Phase Detection Auto Focus (PDAF) and Contrast Detection Auto Focus (CDAF) technologies to deliver fast, accurate, and stable focusing performance. PDAF enables rapid subject acquisition and responsive tracking, while CDAF provides precise focus refinement for enhanced image sharpness. Together, these technologies ensure reliable focus performance even in dynamic production environments and challenging lighting conditions.

Optical Low-Pass Filter (OLPF)

Integrated OLPF technology minimizes moiré and aliasing artifacts when shooting against LED walls, display panels, and fine-pattern backgrounds, making the Explore 300 ideal for modern AV and virtual production environments.

DC Brushless PTZ Motor System with Preset Sync

The Explore 500 features a precision DC brushless PTZ motor system with synchronized Pan, Tilt, and Zoom control during preset recall, ensuring smooth movement between preset positions.

With stable torque across the full speed range, the system delivers especially smooth and precise low-speed operation, reducing jitter and abrupt transitions while eliminating robotic motion commonly found in conventional PTZ cameras for natural broadcast-grade performance.

Versatile Output Options:

The Explore offers diverse output options, including 4K60p resolution through NDI®, NDI®HX3, 12G-SDI, HDMI, and SFP+ connections. Users can choose the output method that best suits their production needs, ensuring flexibility and compatibility.

Genlock Functionality:

The Explore features Genlock, a valuable synchronization feature, which makes it to function as a primary camera, ensuring precise video synchronization with other sub-cameras in complex broadcast video production and live streaming setups.

Robust Audio Capabilities:

The Explore features with a stereo 3.5mm line-in input and a Mini XLR audio input. Moreover, the XLR input supports phantom power, providing compatibility with a wide range of microphones and audio equipment.

Touch-Friendly Web UI

The newly designed, touch-friendly web UI offers intuitive on-screen PTZ control and is fully optimized for tablets and smartphones. Operators can reposition the camera, adjust focus or instantly switch tracking subjects directly from the live feed with a single tap, ensuring fast, precise, and flexible control across both studio and field environments.

Native AI-Based Auto-Tracking & Auto-framing:

The Explore incorporates native AI-based auto-tracking and auto-framing technology, this intelligent feature automatically follows subjects, enhancing ease of use and ensuring that important moments are captured flawlessly.

Free D Technology Integration:

The Explore seamlessly integrates FreeD technology, empowering users to explore dynamic shooting angles and perspectives, making it ideal for versatile real-world and virtual-world applications.

MicroSD Card Slots

MicroSD card slots—one for firmware upgrades and the other for local recording. Record directly onto the camera for instant backup during network issues or quick access, ideal for prompt event review.

Specification

Camera	Explore 500
Part NO.	TLC-900-IP-20-4K(NDI)-AB-G2
Sensor	Sony 4/3" inch 9MP UHD CMOS sensor
Built-in ND Filter	Variable ND (1.6%, 6.3%, 25%, 100%)
Zoom	20x optical zoom
Lens	f = 9.79 ~ 186.5mm, F2.8 ~ F4.5
Horizontal View Angle	71° (Wide) ~ 4.05° (Tele)
Vertical viewing angle	39.6° ~ 2.2°
Diagonal viewing angle	78.5° ~ 4.6°
Minimum Working Distance	1.0m
S/N Ratio	≥50dB
Video Format	12G-SDI: 3840*2160P60/50/30/25/59.94/29.97/24/23.98; 1920*1080P60/50/30/25/59.94/29.97/24/23.98; 1920*1080I60/50/59.94; 1280*720P60/50/30/25/59.94/29.97
	3G-SDI: 1920*1080P60/59.94/50/30/29.97/25/24/23.98; 1920*1080I60/59.94/50; 1280*720P60/59.94/50/30/29.97/25
	HDMI2.0: 3840*2160P60/50/30/25/59.94/29.97/24/23.98; 1920*1080P60/50/30/25/59.94/29.97/24/23.98; 1920*1080I60/50/59.94; 1280*720P60/50/30/25/59.94/29.97
	NDI®/ NDI®HX3: Main Stream: 3840*2160P15~60; 1920*1080P15~60; 1280*720P15~60; 1024*576P15~60 Sub Stream :640*360P15~30
	SFP+:

	3840*2160P60/50/30/25/59.94/29.97/24/23.98; 1920*1080P60/50/30/25/59.94/29.97/24/23.98; 1920*1080I60/50/59.94; 1280*720P60/50/30/25/59.94/29.97 USB Type-C: NV12: 1920*1080P5; 1280*720P15; 1024*576P25; 800*448P30 YUYV: 1920*1080P5; 1280*720P15; 1024*576P25; 800*448P30 MJPG: 3840*2160P30; 1920*1080P60; 1280*720P60; 1024*576P60; 800*448P60 H264/H265: 3840*2160P30; 1920*1080P60; 1280*720P60; 1024*576P60; 800*448P60
Image Parameters	
Noise Reduction	2D&3D
Minimum lux	0.5Lux (50 IRE Max AGC, 1/30, F2.8)
White Balance	Auto/Manual/Auto tracking/Push/Indoor/Outdoor/Color Temperature
Exposure	Auto/Manual/Shutter Priority/Iris Priority/Brightness Priority
Anti-Flicker	OFF, 50Hz, 60Hz
Image Flip	Support
Mirroring	Support
Focus	Auto/Manual
Iris	Auto/Manual
Electronic-shutter	Auto/Manual
Gamma	Support
Backlight Compensation	Support
IP Streaming	
Video Encoding	H.264/H.265 (Sub stream supports MJPEG)
Bitrate Control	Variable bitrate(VBR), Constant bitrate(CBR)
Video Bitrate	NDI HX3: 3Mbps ~ 120Mbps; NDI® high bandwidth: 90Mbps ~ 250Mbps
Network Port Speed	1000M
Protocol	NDI®, NDI®HX3, SRT, HTTP, HTTPS, RTSP, RTMP, RTMPS, ONVIF, VISCA over IP(TCP&UDP), VISCA, PELCO P/D, SSDP, FreeD, NTP, RTP Multicast, WebRTC, MPEG-TS
Pan/Tilt Movement	
Preset	Remote controller: 10; Serial port: 256; Accuracy: 0.1°
Pan Rotation Angle	-170° ~ +170°
Tilt Rotation Angle	-90° ~ +90°
Pan Rotation Speed	0.1°~80°/s
Tilt Rotation Speed	0.1°~60°/s
I/O Interface	
Control Port	RS232, RS485, RS422, RJ45, USB, NDI®HX3
Video Port	NDI®, NDI®HX3, HDMI 2.0, 12G-SDI, 3G-SDI, SFP+, USB Type-C
Audio Port	Min XLR(with phantom power), Stereo 3.5mm line in
Tally	Support

POE++	Support
Daisy Chain	Support
General	
Input Voltage	DC12V, POE++ (IEEE802.3bt)
Operating Temperature	-10℃~ 50℃
Operating Humidity	≤80%
Dimension (L×W×H)	232.5mm×264mm×269mm
Net Weight	4.6KG(10.15LBS)
Color	Black/White

Interface



Dimension

