

## NDI®|HX using NDI® 4 Broadcast & Streaming Camera

The PTZOptics 12X-NDI is a 1080p camera with 12X optical zoom for capturing both wide angles and long shots. With support for NDI®|HX, 3G-SDI, HDMI, and IP streaming (H.264, H.265, & MJPEG), this camera is ideal for broadcasting high definition video signals for broadcast, recording, video conferencing, or live streaming applications.

### Key Features

- 72.5° wide-angle lens
- 1920x1080p Full HD Resolutions up to 60 frames per second
- High performance in low light scenarios with Wide Dynamic Range
- 2D and 3D noise reduction with our latest “low noise CMOS sensor”
- Simultaneous HDMI, 3G-SDI, & NDI®|HX using NDI® 4 / IP streaming
- H.264, H.265, or MJPEG compression when IP streaming
- Support for NDI® Discover Server
- Photobooth capable
- Customizable Presets – PTZ Motion Sync or Image Freeze
- PTZOptics VISCA (RS232 / RS485), PTZOptics VISCA over IP (TCP/IP / UDP), & NDI® 4 control
- PoE (Power over Ethernet) or 12V DC power supply

### What’s in the Box

- 12X Zoom NDI|HX Camera
- Power Adapter + Cord
- IR Remote Control
- RS-232C Cable
- Quick Start Guide
- (2) AAA Batteries



#### Camera & Lens

Video Sensor	1/2.7" CMOS, 2.12 Mega Pixel
Frame Rates (HD)	<b>1080p</b> -60/50/30/25/59.94*/29.97* <b>1080i</b> -60/50/59.94* <b>720p</b> -120**/60/50/30/25/59.94*
Frame Rates (SD)	<b>576i</b> -30 <b>480i</b> -30
Focal Length	12X, F3.5mm-42.3mm, F1.8-F2.8
Min Lux	0.05 Lux (@F1.8, AGC ON)
Shutter Speed	1/30s – 1/10000s
SNR	≥55dB
Horizontal Field of View	6.9° (tele) ~ 72.5° (wide)
Vertical Field of View	3.9° (tele) ~ 44.8° (wide)

\*Broadcast framerate are considered BETA and may not work on all platforms

\*\*720p-120 is only available over NDI|HX / IP streaming

#### Pan & Tilt Movement

Pan Rotation	±170
Tilt Movement	Up: 90°, Down 30°
Presets	10 via IR (255 via Serial or IP)

#### Camera Connection

Video Outputs	NDI® HX, HDMI, , 3G-SDI, IP, CVBS, VISCA
Audio Interface	Line in, 3.5mm (Unbalanced Stereo)
Network Interface	RJ45 10/100/1000 Ethernet port
HDMI Interface	HDMI ver. 1.3
SDI Interface	BNC Female
Control Interfaces	RS-232, RS-485, Pelco-D/P, IR, NDIv4
Power Supply Interface	JEITA type Power Adapter

#### Power Specifications

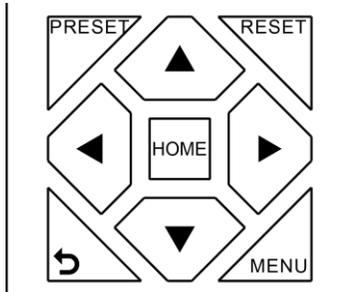
Power Supply	12W (Max)
Input Voltage	12V DC (10.8 – 13.0V DC) or PoE 802.3af*

\*Do not power over DC & PoE simultaneously!

#### Physical Specifications

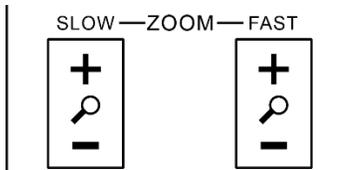
Dimensions W x D x H	5.6" x 7.88" x 6.5"
Dimensions W x D x H	142mm x 169mm x 164mm
Camera Weight	3.2 lbs (1.45 kg)

## 1. Pan & Tilt Control



Tilt Up: [▲]  
 Tilt Down: [▼]  
 Pan Left: [◀]  
 Pan Right: [▶]  
 Face camera to front: [Home]

## 2. Zoom Control



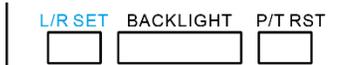
Zoom In: [+] Fast or Slow  
 Zoom Out: [-] Fast or Slow

## 3. Focus Control



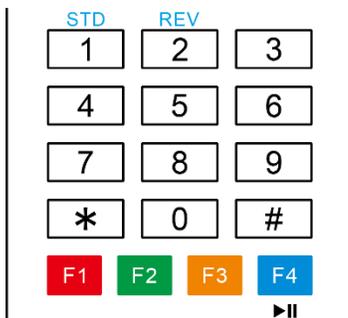
Auto Focus Mode: [Auto]  
 Manual Focus Mode: [Manual]  
 Focus Far: [Far]  
 Focus Near: [Near]

## 4. Backlight, L/R Set, & P/T RST Controls



Reverse Pan Control: [L/R Set] + [1]  
 Standard Pan Control: [L/R Set] + [2]  
 Backlight Compensation: [Backlight]  
 Self-Calibrate Test: [P/T RST]

## 5. Presets – Setting, Calling, and Clearing



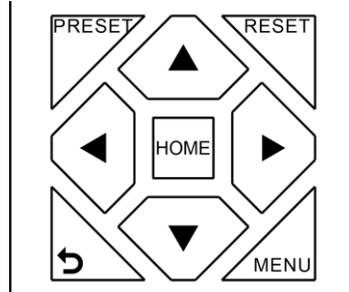
Set Preset: [Preset] > [0-9]  
 Call Preset: [0-9]  
 Clear Preset: [Reset] > [0-9]  
 Clear All Presets: [\*] > [#] > [Reset]

## 6. Image Freeze



Toggle Image Freeze [▶||]

## 7. On Screen Display Menu



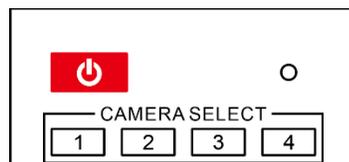
Open / Close OSD: [Menu]  
 OSD Up: [▲]  
 OSD Down: [▼]  
 OSD Left: [◀]  
 OSD Right: [▶]  
 OSD Enter: [Home]  
 OSD Back: [◀]

## 8. Change Camera IR Address



Address 1: [\*] > [#] > [F1]  
 Address 2: [\*] > [#] > [F2]  
 Address 3: [\*] > [#] > [F3]  
 Address 4: [\*] > [#] > [F4]

## 9. Camera Select



IR Address 1: [Cam Select 1]  
 IR Address 2: [Cam Select 2]  
 IR Address 3: [Cam Select 3]  
 IR Address 4: [Cam Select 4]

## 10. Standby Control



Toggle Standby Mode

## 11. Camera Shortcuts

[\*] > [#] > [1]: Display OSD menu in English  
 [\*] > [#] > [3]: Display OSD menu in Chinese  
 [\*] > [#] > [4]: Show IP address  
 [\*] > [#] > [6]: Quickly restore the default settings  
 [\*] > [#] > [8]: Show the camera version  
 [\*] > [#] > [9]: Quickly set mount mode (flip / normal)  
 [\*] > [#] > [Manual]: Resets IP information to default  
 [\*] > [#] > [4]: Enable Dynamic IP address  
 [L/R Set] + [1] (STD): Normal Pan controls  
 [L/R Set] + [2] (REV): Reverses Pan controls  
 [#] > [\*] > [#] > [1]: Sets IP address to 192.168.100.81  
 [#] > [\*] > [#] > [2]: Sets IP address to 192.168.100.82  
 [#] > [\*] > [#] > [3]: Sets IP address to 192.168.100.83  
 [#] > [\*] > [#] > [4]: Sets IP address to 192.168.100.84  
 [#] > [\*] > [#] > [5]: Sets IP address to 192.168.100.85  
 [#] > [\*] > [#] > [6]: Sets IP address to 192.168.100.86  
 [#] > [\*] > [#] > [7]: Sets IP address to 192.168.100.87  
 [#] > [\*] > [#] > [8]: Sets IP address to 192.168.100.88  
 [#] > [\*] > [#] > [9]: Sets IP address to 192.168.100.89  
 [#] > [\*] > [#] > [0]: Sets IP address to 192.168.100.80