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

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### Camera & Lens

**Video Sensor**

1/2.7" CMOS, 2.12 Mega Pixel

**Frame Rates (HD)**

- 1080p-60/50/25/59.94*/29.97*
- 1080i-60/50/59.94*
- 720p-120/**/60/50/30/25/59.94*

**Frame Rates (SD)**

- 576i-30
- 480i-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 framerates are considered BETA and may not work on all platforms

**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, NDlv4

**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

<table>
<thead>
<tr>
<th>STD</th>
<th>REV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
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<tr>
<td>7</td>
<td>8</td>
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<tr>
<td>*</td>
<td>0</td>
</tr>
</tbody>
</table>

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

6. Image Freeze

| F1 | F2 | F3 | F4 |

7. On Screen Display Menu

| F1 | F2 | F3 | F4 |

- Open / Close OSD: [Menu]
- OSD Up: [↑]
- OSD Down: [↓]
- OSD Left: [←]
- OSD Right: [→]
- OSD Enter: [Home]
- OSD Back: [Esc]

8. Change Camera IR Address

| F1 | F2 | F3 | F4 |

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

9. Camera Select

| 1 | 2 | 3 | 4 |

- 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

| F1 | F2 | F3 | F4 |

- 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

| # | * | # |

IR Address 1: [Cam Select 1]

IR Address 2: [Cam Select 2]

IR Address 3: [Cam Select 3]

IR Address 4: [Cam Select 4]

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IR Address 4: [Cam Select 4]