PTZOptics

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

Model Number:
- PT12X-NDI-GY (Gray)
- PT12X-NDI-WH (White)

http://ptzoptics.com/ndi/

Camera & Lens

<table>
<thead>
<tr>
<th>Camera &amp; Lens</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Sensor</td>
<td>1/2.7” CMOS, 2.07 Megapixel</td>
</tr>
<tr>
<td>Frame Rates (HD)</td>
<td>1080p-60/50/30/25/59.94*/29.97*</td>
</tr>
<tr>
<td>Frame Rates (SD)</td>
<td>720p-120**/60/50/30/25/59.94*</td>
</tr>
<tr>
<td>Focal Length</td>
<td>12X, F3.5mm-42.3mm, F1.8-F2.8</td>
</tr>
<tr>
<td>Min Lux</td>
<td>0.05 Lux (@F1.8, AGC ON)</td>
</tr>
<tr>
<td>Shutter Speed</td>
<td>1/30s – 1/10000s</td>
</tr>
<tr>
<td>SNR</td>
<td>≥55dB</td>
</tr>
<tr>
<td>Horizontal Field of View</td>
<td>6.9° (tele) ~ 72.5° (wide)</td>
</tr>
<tr>
<td>Vertical Field of View</td>
<td>3.9° (tele) ~ 44.8° (wide)</td>
</tr>
</tbody>
</table>

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

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

Pan & Tilt Movement

<table>
<thead>
<tr>
<th>Pan &amp; Tilt Movement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pan Rotation</td>
<td>±170</td>
</tr>
<tr>
<td>Tilt Movement</td>
<td>Up: 90°, Down 30°</td>
</tr>
<tr>
<td>Presets</td>
<td>10 via IR (255 via Serial or IP)</td>
</tr>
</tbody>
</table>

Camera Connection

<table>
<thead>
<tr>
<th>Camera Connection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Outputs</td>
<td>NDI®</td>
</tr>
<tr>
<td>Audio Interface</td>
<td>Line in, 3.5mm (Unbalanced Stereo)</td>
</tr>
<tr>
<td>Network Interface</td>
<td>RJ45 10/100/1000 Ethernet port</td>
</tr>
<tr>
<td>HDMI Interface</td>
<td>HDMI ver. 1.3</td>
</tr>
<tr>
<td>SDI Interface</td>
<td>BNC Female</td>
</tr>
<tr>
<td>Control Interfaces</td>
<td>RS-232, RS-485, Pelco-D/P, IR, NDlv4</td>
</tr>
<tr>
<td>Power Supply Interface</td>
<td>JEITA type Power Adapter</td>
</tr>
</tbody>
</table>

Power Specifications

<table>
<thead>
<tr>
<th>Power Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>12W (Max)</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>12V DC (10.8 – 13.0V DC) or PoE 802.3af*</td>
</tr>
</tbody>
</table>
*Do not power over DC & PoE simultaneously!

Physical Specifications

<table>
<thead>
<tr>
<th>Physical Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions W x D x H</td>
<td>5.6” x 7.88” x 6.5”</td>
</tr>
<tr>
<td>Dimensions W x D x H</td>
<td>142mm x 169mm x 164mm</td>
</tr>
<tr>
<td>Camera Weight</td>
<td>3.2 lbs (1.45 kg)</td>
</tr>
</tbody>
</table>

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
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:  一
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