PTZ 35X HD
Professional UHD/HD/SD Broadcast and Conference Camera

There are many situations that require video capture, but where sending in a camera operator is not feasible. When you need a small and unobtrusive camera that you can “set and forget,” the Grass Valley pan-tilt-zoom camera provides a versatile and affordable way to capture images in situations that are not suited to larger cameras, with the image quality you expect from a Grass Valley camera.

Operating the camera is simple. The PTZ 35X HD reduces production complexity with remote control from any of Grass Valley’s Kula switchers or automated as a part of GV Pace pre-set scenes. Images from the PTZ 35X can be intermixed with images from Grass Valley’s LDX cameras without the audience seeing noticeable shifts in image quality.

KEY FEATURES
- Adopts the most advanced Image Signal Processing, with a 1/1.7-in. 12.4 MP sensor, providing 3840x2160p30 Ultra HD video resolution
- 4K wide angle optical lens: 35x optical zoom and 2x digital zoom, with a wide 60.5° horizontal angle of view
- 4K video over IP; H.264, H.265 encoding
- Supports NDI v4.0 video transmission and control
- NDI|HX, HDMI, 3G-SDI, USB outputs, fit for different application, 4K video streaming over NDI|HX and HDMI
- White balance, exposure, focus, iris can be adjusted automatically or manually
- Supports PoE: one single CAT5/6 to get video, control and power supply
- Special focusing algorithm: fast and precise focusing performance when zooming or moving
- Smooth PTZ mechanical design, accurate pan tilt motor control
- 128 presets supported — exposure parameter and white balance parameter can be saved in presets (in manual mode)
- Standard Sony VISCA, IP VISCA, PELCO-P, PELCO-D control protocol; IP VISCA over both TCP and UDP
- Daisy chain supported, max. 7 cameras connected in VISCA protocol
- Image flip function, supports upside-down installation
- Fast video format switch: less than 3 seconds
- Supported field upgrade for ISP, ARM, FPGA and USB
- USB 3.0 port compatible with USB 2.0 output
- Supports RS-232/RS-485/UVC control
## SPECIFICATIONS

### Video Formats

<table>
<thead>
<tr>
<th>Format</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI (v1.4)</td>
<td>3840x2160p30/25</td>
</tr>
<tr>
<td></td>
<td>1920x1080p60/50/30/25/59.94/29.97/24</td>
</tr>
<tr>
<td></td>
<td>1920x1080p60/50/59.94</td>
</tr>
<tr>
<td></td>
<td>1280x720p60/50/30/25/59.94/29.97</td>
</tr>
<tr>
<td>SDI</td>
<td>1920x1080p60/50/30/25/59.94/29.97/24</td>
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<tr>
<td></td>
<td>1920x1080p60/50/59.94</td>
</tr>
<tr>
<td></td>
<td>1280x720p60/50/30/25/59.94/29.97</td>
</tr>
<tr>
<td>USB</td>
<td>1920x1080p60/50/30/25 (USB 3.0)</td>
</tr>
<tr>
<td></td>
<td>1280x720p60/50/30 (USB 3.0)</td>
</tr>
<tr>
<td></td>
<td>1280x720p25 (USB 3.0 &amp; USB 2.0)</td>
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<tr>
<td></td>
<td>1024x576p30 (USB 3.0 &amp; USB 2.0)</td>
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<tr>
<td></td>
<td>960x540p30 (USB 2.0)</td>
</tr>
<tr>
<td></td>
<td>640x360p30 (USB 2.0)</td>
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<tr>
<td></td>
<td>512x288p30 (USB 2.0)</td>
</tr>
<tr>
<td>IP</td>
<td>3840x2160 @1<del>30 / 1920x1080 @01</del>30 (main stream)</td>
</tr>
<tr>
<td></td>
<td>1280x720 @01<del>30 / 1027x576 @01</del>30 / 640x360 @01~30 (sub stream)</td>
</tr>
<tr>
<td>NDI</td>
<td>3840x2160 @015~30</td>
</tr>
<tr>
<td></td>
<td>1920x1080 @015~30</td>
</tr>
<tr>
<td></td>
<td>1280x720 @015~30</td>
</tr>
<tr>
<td></td>
<td>1027x576 @015~30</td>
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<tr>
<td></td>
<td>640x360 @015 (low bandwidth mode)</td>
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</tbody>
</table>

### Video Interface

<table>
<thead>
<tr>
<th>Format</th>
<th>Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI (v1.4), SDI, NDI/HX, USB3.0, USB2.0</td>
<td></td>
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</tbody>
</table>
### Sensor

- 1/1.7-in. 12.4 MP CMOS sensor

### Zoom

- 5.8 – 20.3 mm (35X), f1.5 – 4.8
- View angle: 60.5° (far) – 2.02° (near), horizontal

### Rotation Angle

- Pan: -170° ~ +170°
- Tilt: -30° ~ +90°

### Rotation Speed

- Pan: 0°~120°/s
- Tilt: 0°~80°/s

### Preset

- Remote controller: 10
- RS-232: 128
- Accuracy: 0.1°

### Control Port

- RS-232, RS-485, NDI|HX (VISCA over IP), USB 3.0 (UVC1.5), USB 2.0 (UVC1.1)

### Network Speed

- 1000 Mb/s

### Video Encode

- H.264/H.265

### Bit Rate Control

- Variable bit rate, constant bit rate

### Video Bit Rate

- 1024 kb/s ~ 20480 kb/s

### Supported Protocol

- TCP/IP, HTTP, RTSP, DHCP, RTMP, ONVIF (v2.4), NDI (v4.0)
- VISCA over IP (TCP & UDP, HTML5, VISCA, PELCO P/D)

### PoE

- Supported, PoE+(IEEE 802.3at)

### Daisy Chain

- Support RS-232 serial daisy chain

### Minimum Lux

- 0.1 lux

### White Balance

- Auto/indoor/outdoor/manual/push/sodium lamp auto/sodium lamp

### Exposure

- Auto/indoor/auto/mode/push/sodium lamp auto/sodium lamp

### Focus

- Auto/manual

### Iris

- Auto/manual

### Electric Shutter

- Auto/manual

### Gamma

- Supported

### WDR

- Supported

### BLC

- Supported

### 2D Noise Reduction

- Supported

### 3D Noise Reduction

- Supported

### Anti-Flicker

- OFF/50 Hz/60 Hz

### Pan Tilt Flip

- Supported

### Input Voltage

- DC12V/PoE (IEEE802.3at)

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### ORDERING

1-0660111-0001

PTZ 35X UHD/HD/SD camera

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