

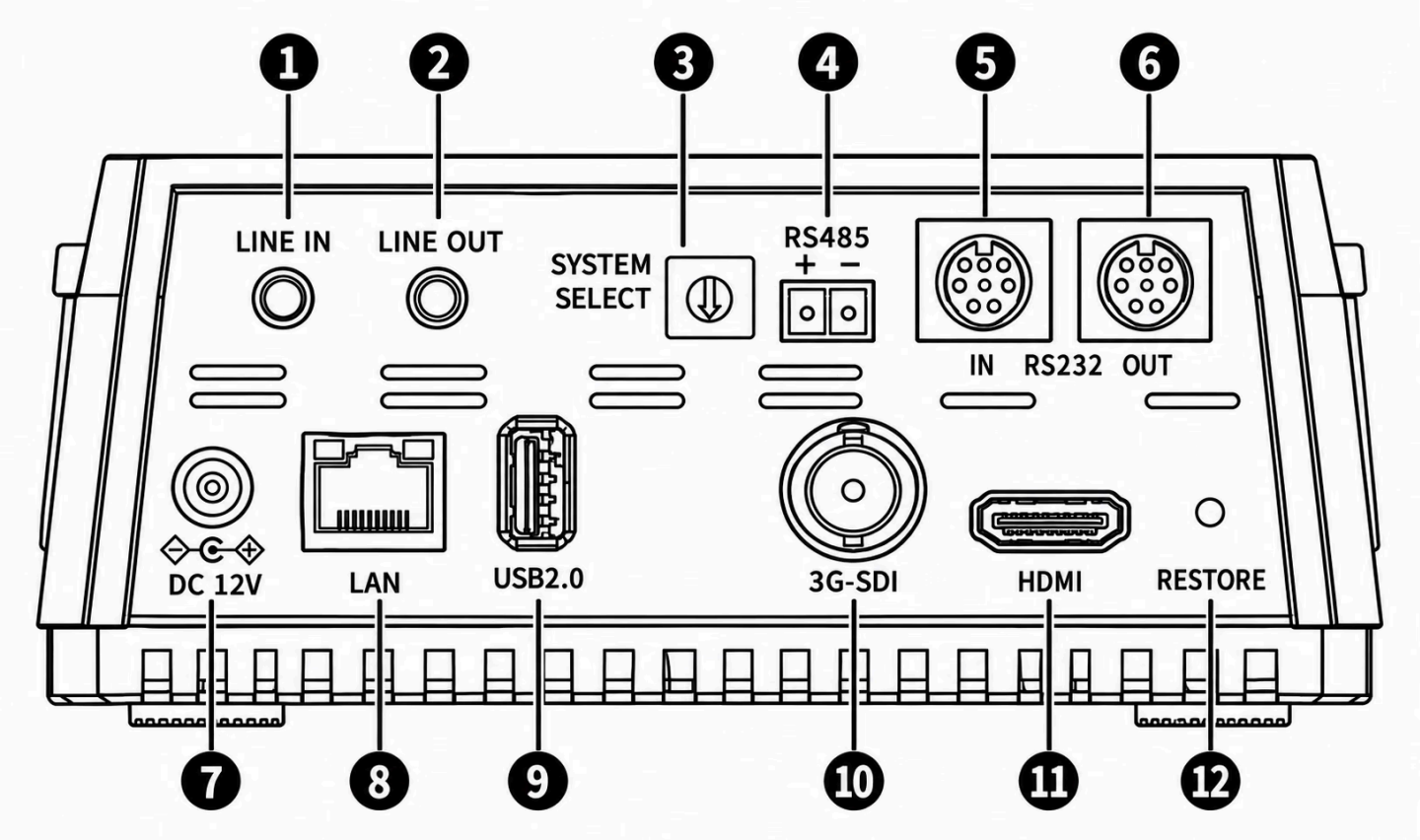

# PTZOptics Link 4K

Technical Specifications

# Technical Specs

## Model Information

| Feature | Value |
| --- | --- |
| Official SKU | `PT12X-LINK-4K-GY`, `PT12X-LINK-4K-WH`, `PT20X-LINK-4K-GY`, `PT20X-LINK-4K-WH`, `PT30X-LINK-4K-GY`, `PT30X-LINK-4K-WH` |
| Model Name | `Link 4K` |




## Link 4K Connection List

1. 3.5mm Audio Input
2. 3.5mm Audio Output
3. Resolution Dial
4. RS-485 Interface
5. RS-232 Input

6. RS-232 Output
7. DC 12V Power
8. Dante AV-H LAN
9. USB 2.0
10. 3G-SDI
11. HDMI 2.0 Output
12. Restore Button

## Camera & Lens

| Feature | Specification |
| --- | --- |
| **Resolution & Frame Rate HDMI** | **3840x2160p** - 60/59.94/50/30/29.97/25<br>**1920x1080p** - 60/59.94/50/30/29.97/25<br>**1920x1080i** - 60/59.94/50<br>**1280x720p** - 60/59.94<br>**1024x576**<br>**720x480**<br>**720x408**<br>**640x480**<br>**640x360** - 60/59.94/50/30/29.97/25 |
| **Resolution & Frame Rate 3G-SDI** | **1920x1080p** - 60/59.94/50/30/29.97/25<br>**1920x1080i** - 60/59.94/50<br>**1280x720p** - 60/59.94<br>**1024x576**<br>**720x480**<br>**720x408**<br>**640x480**<br>**640x360** - 60/59.94/50/30/29.97/25 |
| **Resolution & Frame Rate USB** | **3840x2160p** - 30/25/24/20/15/10/7.5/5<br>**1920x1080p** - 30/25/24/20/15/10/7.5/5<br>**1280x720p** - 30/25/24/20/15/10/7.5/5<br>**1024x576** - 30/25/24/20/15/10/7.5/5<br>**720x480** - 30/25/24/20/15/10/7.5/5<br>**720x408** - 30/25/24/20/15/10/7.5/5 |

| Feature | Specification |
| --- | --- |
| | **640x480** - 30/25/24/20/15/10/7.5/5<br>**640x360** - 30/25/24/20/15/10/7.5/5 |
| **Resolution & Frame Rate Dante AV-H Stream 1:** | 3840x2160, 1920x1080, 1280x720, 1024x576, 720x480, 720x408, 640x480, & 640x360. **ALL capable of 1 ~ 60 FPS** |
| **Resolution & Frame Rate Dante AV-H Stream 2:** | 720x480, 720x408, 640x480, 640x360, 480x320, 320x240. **ALL capable of 1 ~ 60 FPS** |
| **Lens** | **(12X)** Sony 1/2.5 inch, CMOS |
| | **(20X)** Sony 1/1.8 inch, CMOS |
| | **(30X)** Sony 1/1.8 inch, CMOS |
| **Image Sensor** | **(12X)** 8.51MP, Effective Pixels: 8.29M |
| | **(20X)** 8.42MP, Effective Pixels: 8.29M |
| | **(30X)** 8.42MP, Effective Pixels: 8.29M |
| **Optical Lens Focal Length (Zoom)** | **(12X)** f = 4.4mm ~ 52.8mm, F1.8 ~ F2.6 |
| | **(20X)** f = 6.25mm ~ 125mm, F1.58 ~ F3.95 |
| | **(30X)** f = 7.1mm ~ 210mm, F1.61 ~ F5.19 |
| **Maximum Tracking Distance** | **(12X)** 202' (61.57m) |
| | **(20X)** 264' (80.47m) |
| | **(30X)** 334' (101.80m) |
| **Optical Lens Field of View Horizontal & Vertical** | **(12X)** H 6.9° ~ 72.5° V 3.9° ~ 44.8° |
| | **(20X)** H 3.5° ~ 60.7° V 1.9° ~ 34.1° |
| | **(30X)** H 2.5° ~ 59.2° V 1.4° ~ 34.6° |

| Feature | Specification |
|---|---|
| **Display Field of View** | **(12X)** 82.8° |
| | **(20X)** 66.6° |
| | **(30X)** 66.7° |
| **Min Lux** | 0.5 Lux @ (F1.8, AGC ON) |
| **Shutter** | 1/30s ~ 1/10000s |
| **Pan Movement Range** | ±170° |
| **Tilt Movement Range** | -30° ~ +90° |
| **Pan Speed** | 0.7°/s ~ 100°/s |
| **Tilt Speed** | 0.7°/s ~ 69.9°/s |
| **Presets** | 255 Presets |
| **Preset Accuracy** | 0.1º |
| **Image Flip, Mirror, and Freeze** | Supported |

## Video Output Reference

| Feature | HDMI | 3G-SDI |
|---|---|---|
| **Maximum Resolution** | **4K @ 60fps** (3840 × 2160) | **1080p @ 60fps** (1920 × 1080) |
| **Connector** | HDMI 2.0 | BNC (locking) |
| **Signal Type** | Uncompressed Digital | 3G-SDI (Level-A or Level-B) |
| **Embedded Audio** | ✅ Yes | ✅ Yes |
| **Typical Cable Length** | ~49 ft (15 m) without extenders | ~200–328 ft (60–100 m) |

## Physical Specifications

| Feature | Specification |
|---|---|
| **Dimensions(L x W x H)** | **(12X)** 6.65” L x 5.57” W x 7.91” H / 169mm L x 141.5mm W x 201mm H |
| | **(20X)** 6.65” L x 5.57” W x 7.91” H / 169mm L x 141.5mm W x 201mm H |
| | **(30X)** 7.12” L x 6.69” W x 8.98” H / 181mm L x 170mm W x 228mm H |
| **Weight** | **(12X)** 3.25 lbs (1.47 kg) |
| | **(20X)** 3.25 lbs (1.47 kg) |
| | **(30X)** 4.41lbs (2.0 kg) |
| **Working Environment** | Indoor |
| **Humidity Range** | 10% - 80% |
| **Operating Temperature** | 14°F ~ 104°F (-10°C ~ 40°C ) |
| **Storage Temperature** | -40°F ~ 140°F (-40°C ~ 60°C) |

## Connections

| Feature | Specification |
|---|---|
| **RJ45** | 10/100/1000M Adaptive Ethernet Port<br>Dante AV-H enabled |
| **HDMI** | Version 2.0 |
| **3G-SDI** | BNC Type, 800mVP-p, 75Ω, Along to SMPTE 424M,standard |
| **USB 2.0** | Type A |

| Feature | Specification |
| --- | --- |
| **Compression Standards** | YUY2 / MJPEG / H.264 / H.265 |
| **Audio Interface** | 3.5mm Line level Input & Output |
| **RS232 Input** | 8-pin Mini DIN RS232 Input, Max distance: 98.5ft / 30m, **Protocol**: VISCA / Pelco-D / Pelco-P |
| **RS232 Output** | 8-pin Mini DIN RS232 Output, Max distance: 98.5ft / 30m, **Protocol**: VISCA / Pelco-D / Pelco-P |
| **RS485 Input / Output** | 2-pin Phoenix port RS485 Input / Output, Max distance: 3,937ft / 1200m, **Protocol**: VISCA / Pelco-D / Pelco-P |
| **IR** | 4x IR Addresses, Max distance 30ft / 9m |
| **Power Supply** | JEITA type (DC IN 12V) / PoE+ (802.3at) |
| **Current Consumption** | Max 1.0A |

## Power Supply

> **INFO**
>
> The IEC 60601-1 certified power adapter is **purchased separately**. The external power adapter included with this device is not IEC 60601-1 certified.
>
> **IEC 60601-1 certified, PTZOptics SKU number:** `PT-PSB-M`
> IEC 60601-1 certified, Manufacturer Model: `EM1024QR(10)`, manufactured by Edac Power Electronics (Suzhou) Co., Ltd. (No. 59, Chang Sheng Road, Sheng Pu, Suzhou Industrial Park, Jiangsu, China).

- **Input:** `100–240 V~` (interchangeable wall-mount)
- **Output:** `12.0 V DC / 2.0 A / 24.0 W`, Efficiency Level VI
- **DC Cable & Plug:** `1200 mm` cable; `5.5 × 5 × 1.0 mm` inner-pin DC plug
- **Camera Max Input Current:** `1.0 A`
- **Replacement Power Supply:** Visit ptzoptics.com/where-to-buy

- **Power over Ethernet (PoE):** Supports PoE+ (IEEE 802.3at). Use a medical-grade PoE+ network switch complying with IEC 60601 or an isolated PoE+ injector.
- **Disconnecting Power / Supply Mains (IEC 60601-1, Clause 8.11.1):** To completely disconnect the camera from power, unplug the external power adapter from the AC wall outlet (or disconnect the PoE+ Ethernet cable). The power adapter plug serves as the disconnect device; do **NOT** position the equipment where it is difficult to reach and unplug.

## Front Status LED Indicators

The camera front panel features a blue **Power LED** and a green **Standby Status LED**:

| Camera State | Power LED (Blue) | Standby LED (Green) |
|---|---|---|
| **Power-on (initial boot)** | On | On |
| **Normal operation (idle, no control)** | Steady On | Off |
| **Receiving IR remote signal** | Steady On | Flashes once |
| **Standby mode** | On | On |
| **Privacy Mode** | On | Flashes continuously |

## Certifications

- BIS
- CE-EMC
- CE-LVD
- FCC
- REACH
- RoHS
- UKCA

## Packing List & Approved Accessories

Use only manufacturer-approved accessories. Compatibility of any third-party accessory must be confirmed with Haverford Systems Inc. before use:

| Accessory | Specification / Part Number |
| --- | --- |
| **AC Power Adapter** | PTZOptics SKU `PT-PSB-U` `12.0 V DC / 2.0 A / 24.0 W` |
| **Power Cable** | AC power cord (supplied with the adapter; regional mains plug) |
| **RS-232 Cable** | 8-pin Mini-DIN RS-232 cable (VISCA / Pelco-D / Pelco-P; max `30 m`) |
| **IR Remote Control** | IR remote control, 4 IR addresses, control range `9 m` (`30 ft`) |
| **USB Cable** | USB cable USB A-A Cable |
| **Lens Cap** | Lens cap (supplied with the camera) |
| **Quick Start Guide** | Quick Start Guide |
| **AAA Batteries** | 2 AAA batteries |

## Compliance

The Link 4K is an NDAA Compliant camera.

- **Country of Origin:** China or Laos.

Covered by one or more claims of the HEVC patents listed at patentlist.accessadvance.com

