

PTZOptics Rise 4K

Technical Specifications | SKU: PT20X-RISE-4K-BK

Model Information

Feature	Specification
Official SKU	PT20X-RISE-4K-BK
Model Name	Rise 4K

Connections (Rear Panel)



#	Connection
1	System Select (Resolution Dial)
2	Kensington lock
3	Line out
4	Line in
5	RS422 out (RJ45)
6	RS422 in (RJ45)
7	RS232 in (RJ45)
8	Dual XLR inputs (with 48V Phantom Power)
9	12G-SDI output
10	Time code
11	Genlock
12	SFP+ fiber port (12G-SDI extension)
13	Restore button
14	MicroSD card slot
15	USB 3.0 Type-C
16	HDMI 2.0 output

#	Connection
17	3G-SDI output
18	LAN (RJ45, 10/100/1000M) with PoE++
19	DC 12V power

Video Formats

Feature	Specification
Resolutions & Frame Rates HDMI / 12G-SDI	4KP60, 4KP59.94, 4KP50, 4KP30, 4KP29.97, 4KP25, 4KP24, 4KP23.98, 1080P60, 1080P59.94, 1080P50, 1080P30, 1080P29.97, 1080P25, 1080P24, 1080P23.98, 1080I60, 1080I50, 1080I59.94, 720P60, 720P59.94
Resolutions & Frame Rates 3G-SDI	1080P60, 1080P59.94, 1080P50, 1080P30, 1080P29.97, 1080P25, 1080P24, 1080P23.98, 1080I60, 1080I50, 1080I59.94, 720P60, 720P59.94

Imaging System

Feature	Specification
Sensor	1 inch, CMOS, Progressive Scan, Effective Pixels: 50 million
Lens	20x, f9.79mm to 186.5mm, F2.8 to F4.5
Digital Zoom	16x
Horizontal FoV	70° to 4.1°
Vertical FoV	41.9° to 2.3°
Minimum Illumination	0.5Lux @ (F2.8, AGC ON)
Shutter	1/30s to 1/10000s
ND (Neutral Density) Filter	Built-in (OFF, 1/4, 1/16, 1/64)
Image Stabilization	OIS (Optical Image Stabilization)
OIS Operating Range	3Hz to 8Hz
White Balance	Auto, Manual, Indoor, Outdoor, One Push, VAR
Digital Noise Reduction	3D Digital Noise Reduction
SNR	≥55dB
Supported Features	Backlight Compensation Horizontal Flip & Vertical Flip Image Freeze

Pan, Tilt, and Presets

Feature	Specification
Pan Range	±172°
Tilt Range	-30° to +120°
Pan Speed	0.004°/s to 180°/s
Tilt Speed	0.004°/s to 180°/s
Preset Positions Number	255
Preset Position Accuracy	0.1°

USB Specifications

Feature	Specification
Supported Operating Systems	Windows 7, Windows 8, Windows 10, Mac OS X, Linux, Android
Color Space / Compression	YUY2 / H.264 / MJPEG / H.265
Video Format	YUY2: Max 1080P@30fps H.264 AVC: Max 2160P@60fps H.265 HEVC: Max 2160P@60fps MJPEG: Max 2160P@60fps
UVC (USB Video Communication Protocol)	UVC 1.1, Supports USB Embedded Audio

Network Video and Audio

Feature	Specification
Video Compression	H.265 / H.264 / MJPEG
Video Stream	First stream, Second stream
First Stream Resolution	3840x2160, 1920x1080, 1280x720, 1024x576 etc.
Second Stream Resolution	720x576, 720x480, 320x240 etc.
Bit Rate	32kbps to 102400kbps
Bit Rate Control	Variable bit rate, Fixed bit rate
Frequency	P50: 1fps to 50fps P60: 1fps to 60fps
Audio Compression	AAC
Audio Bit Rate	96Kbps, 128Kbps

Protocols

Feature	Specification
Control Protocols	HTTP(S), ONVIF, VISCA / Pelco-D / Pelco-P
Video Protocols	NDI HX3, SRT, RTSP, RTMP(S)
Other	FreeD

Video and Synchronization I/O

Feature	Specification
Video Outputs	1x HDMI: 2.0
	1x 12G-SDI: BNC type, 800mVp-p, 75Ω, Comply with SMPTE2082 standard
	1x 3G-SDI: BNC type, 800mVp-p, 75Ω, Comply with SMPTE 424M standard
Genlock	1x BNC type, 1.0Vp-p, 75Ω, input only
Timecode	1x BNC type, 75Ω, input only

Network, USB, and Storage I/O

Feature	Specification
Network	1x RJ45: 10M/100M/1000M adaptive Ethernet
USB	1x USB3.0, Type-C
SD Card	1 channel MicroSD

Audio I/O

Feature	Specification
Audio	1x Line In, 3.5mm Audio Interface
	1x Line Out, 3.5mm Audio Interface
	2x XLR Inputs (Optional 48V Phantom Power)

Serial Control I/O

Feature	Specification
Control Options	1x RS232 In: RJ45, VISCA/Pelco-D/Pelco-P protocol
	1x RS485/422: RJ45, VISCA/Pelco-D/Pelco-P protocol
	1x RS422 out: RJ45, VISCA/Pelco-D/Pelco-P protocol

Power

Feature	Specification
Power	JEITA type (DC IN 12V)
Power over Ethernet	PoE++ (IEEE 802.3bt)
Input Current	5A (maximum)

General Specifications

Feature	Specification
Installation	Normal and Inverted
Tally Light	3x (Bi-color, Red and Green)

Environmental and Physical Specifications

Feature	Specification
Working Temperature	0°C to 40°C
Storage Temperature	-40°C to 60°C
Dimensions	205mm x 237mm x 272mm (8.07" x 9.33" x 10.71")
Net Weight	4.8kg (10.58 lbs)

Certifications

- CE-EMC
- CE-LVD
- FCC
- REACH
- RoHS
- UKCA
- NDI HX3 (Pending Certification)

Compliance

- The Rise 4K is **NDAA Compliant**.
- Covered by one or more claims of the HEVC patents listed at patentlist.accessadvance.com