



Specification of HC-5TK20



Series: Camera Series

Product model: HC-5TK20

Version: v1.2

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Special Instructions

- Due to the influence of product configuration and manufacturing process, there may be differences in the actual body size/body weight. Please refer to the actual product for the accurate information.
- The product illustrations in this specification are for reference only. The actual product effects (including but not limited to appearance, color, and size) may vary slightly. Please refer to the actual product for the accurate information.
- To ensure the accuracy of the information, we reserve the right to revise the written descriptions, pictures, and other contents without prior notice. All adjustments aim to match the actual performance and specifications of the product.
- The performance of the product may be affected by the usage environment, including but not limited to factors such as temperature, humidity, altitude, etc. It is recommended to use the product under the officially recommended environmental conditions.
- The product comes with a warranty card, which, together with the purchase receipt, shall serve as a valid basis for warranty. Free repair services can be enjoyed within the warranty period (excluding damages caused by force majeure or improper use).



1. Product features

- **Full HD Imaging:** Equipped with a 1/2.8-inch high-quality image sensor, supporting maximum resolution up to 3840×2160 at 30fps output frame rate.
- **Optical Zoom Lens:** Features 20x optical zoom capability.
- **Advanced Auto-Focus Technology:** The sophisticated auto-focus algorithm enables fast, precise and stable automatic focusing.
- **Low Noise & High SNR:** The low-noise CMOS ensures ultra-high signal-to-noise ratio for video output. Advanced 2D/3D noise reduction technology further minimizes noise while maintaining image clarity.
- **Multiple Video Output Interfaces:** Supports HDMI, USB, wired LAN; SDI supports transmission up to 100 meters at 1080P60 format.
- **Multiple Audio/Video Compression Standards:** Supports H.265/H.264 video compression, and AAC, MP3, G.711A audio compression; supports compression up to 3840×2160 resolution at 30fps.
- **Audio Input Interface:** Supports AAC, MP3, G.711A audio encoding. AAC/MP3 encoding supports 16,000, 32,000, 44,100, 48,000Hz sampling rates, while G.711A encoding only supports 8,000Hz sampling rate.
- **Multiple Network Protocols:** Supports ONVIF, GB/T28181, RTSP, RTMP protocols; supports RTMP push mode for easy connection to streaming servers (Wowza, FMS); supports RTP multicast mode and full-command VISCA control protocol over network.
- **Control Interface:** RS485, RS232; RS232 supports daisy-chaining for simplified installation.
- **Multi-Control Protocol Compatibility:** VISCA, PELCO-D, PELCO-P protocols with auto-identification capability.
- **Ultra-Silent PTZ Mechanism:** High-precision stepper motor with advanced motion controller ensures smooth low-speed operation with near-zero noise emission.
- **Multi-Preset Configuration:** Supports 255 presets (10 directly accessible via remote control).

2. Main Specifications

2.1 Overview

Camera, Lens Parameter	
Imaging Sensor	1/2.8-inch High-Quality CMOS Sensor
Effective Pixels	8.28 MP、16: 9
Video Signal	HDMI: 4KP30、4KP25、1080P30、1080P25、1080P29.97; USB3.0: Main Stream: YUY2/NV12: 1920×1080/1280×720/1024×576/800×600/800×448/640×360/480 ×270/320×180@30/25fps; MJPG/H264: 3840*2160/1920×1080/1600×896/1280×720/1024×576/960× 540/800×600/800×448/720×576/720×480/640×360/640×480/480 ×270/352×288/320×240@30/25/20/15/10/5fps;
Lens Zoom	20x Optical zoom 5.05~101 mm
Field of View	3.5°(Tele)~60.0°(Wide)
Aperture Range	F 1.8 – F 2.9
Digital Zoom	X15
Minimum Illumination	0.5Lux(F1.8, AGC ON)
Noise Reduction	2D & 3D digital noise reduction
White Balance	Auto/ Manual/ One-push/ 3000K/3500K/4000K/4500K/5000K/5500K/6000K/6500K/7000K
Focus Mode	Auto/ Manual/ One-push
Exposure Control	Auto/ Manual
Shutter Speed	Auto/ Manual
Backlight Compensation	On/ Off
Dynamic range	Close/Dynamic level adjustment
Video Adjustment	Brightness, Contrast, Sharpness, Horizontal Flip, Vertical Flip (displayed when auto flip is disabled), Black & White Mode, Gamma



	Curve, Digital Zoom, DCI, Lens Distortion Correction
SNR	>50dB
Interface Specifications	
Product Interface	HDMI、LAN((POE supported)、USB3.0、LINE-IN、RS485 (RS422) 、DC12V power
Video output interface	HDMI、LAN、USB3.0
Video Compression Formats	LAN interface supports: H.264、 H.265 USB interface supports: YUY2、 NV12、 MJPG、 H.264
Audio Input Interface	3.5mm stereo line input
Audio Output Interface	HDMI、 LAN、 USB3.0
Audio Compression Formats	AAC、 MP3、 G.711A
Network Interface	100M Ethernet port with PoE (Power over Ethernet) support, capable of audio/video output.
Network Protocols	RTSP, RTMP, ONVIF, GB/T28181; Supports VISCA over IP Control Protocol; Supports remote firmware upgrade/reboot/reset)
Control Interface	RS232-IN, RS232-OUT, RS485
Serial Communication Protocols	VISCA/Pelco-D/Pelco-P; Support baud rate 115200/38400/9600/4800/2400
USB Protocaols	UVC (Video) , UAC (Audio)
Powe Interface	HEC3800 power socket (DC12V)
Power Adaptor	Input AC110V~AC220V; Output DC12V/1.5A
Input voltage	DC12V±10%
Input Current	<1A
Power Consumption	<12W
PTZ Specifications	
Pan Range	-170° ~ +170°
Tilt Range	-30° ~ +30°
Pan Speed	0.1°/s ~ 100°/s
Tilt Speed	0.1°/s ~ 30°/s



Preset speed	Pan: 60°/s, Tilt: 30°/s
Preset Positions	Up to 255 user-defined presets (10 accessible via remote control)
Other Specifications	
Storage Temperature	-10°C ~ +60°C
Storage Humidity	20% ~ 95%
Operating Temperature	-10°C ~ +50°C
Operating Humidity	20% ~ 80%
Size	258mm×172mm×169mm(L*W*H)
Weight	Approx. 1.54kg
Environment	Indoor
Accessories	Power adapter, RS232 control cable, USB cable, Remote control, User manual, Mounting bracket