

BC5004

4MP IP Box camera, 1/1.8" CMOS, CS-mount, DC-iris, ABF

DESCRIPTION

*** Planned release October 1, 2025 ***

The BC5004 is a 4 megapixel HD box camera with built-in auto back-focus providing razor-sharp images even under difficult lighting conditions. The camera has multi-stream capabilities for simultaneously streaming of H.264/H.264+/H.265/H.265+/MJPEG. Multiple combinations of resolution and frame rate can be configured. It offers many image enhancement techniques, such as BLC and HLC, Image stabilization, Defog and 3DNR; for further enhancement of the image, dedicated AI is assisting in the removal of the classical low-light artefacts such as noise and motion blur. To have a secured network environment, BC5004 is capable of streaming out by HTTPS protocol.

FEATURES

1/1.8" progressive scan CMOS sensor

Max. 2560x1440 (4MP) Resolution

Up to 60fps

Triple stream H.264, H.264+, H.265, H.265+, and MJPEG

120 dB WDR (Dual exposure HDR)

Secured Streaming

CS mount with selected lens

Auto back focus (ABF)

AI enforced embedded video analytics

Electronic Image Stabilisation

ONVIF Profile S, G, T, M



Description

Multi-stream multi-codec

The camera has triple stream capability for simultaneous streaming of H.264, H.264+, H.265, H.265+, and MJPEG. Multiple combinations of resolution, frame rate, and encoding can be configured to fit all possible live viewing and recording scenarios. The 4 megapixel resolution is available at 25/30 fps still offering multiple exposure WDR (or HDR, in short) with the possibility to add a second stream.

Open standards

Multiple options are available to easily integrate the BC5004 to a video management system. The TKH Security signature SPI protocol is included as the easiest way to drive the camera in customized environments. In support of open standards, the camera is compliant with the ONVIF Profile S, T, G, and M. Any VMS today supports this camera via the ONVIF driver.

Image enhancement

The BC5004 utilizes advanced image processing technology. Crisp and detailed 6MP images with an extremely high dynamic range in real time due to multiple exposure HDR within one frame. Back-light and High-light compensation enhances image-visibility in difficult lighting situations. In addition the camera provides for 3D motion compensated noise reduction for the best images.

Truly remarkable about the camera is its AI enforced low-light sensitivity. Using this next-gen technology, the disadvantageous effects of low light environments such as noise and motion blur are effectively reduced by this camera, without the help of supplemental lighting.

Power source choices

The BC5004 can be powered by 12 Vdc, 24 Vac, or over the network with PoE.

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Camera

Image sensor	1/1.8" CMOS
Max. Resolution	2560x1440 (4MP)
Max. Frame rate	60 (1080p)
Minimum scene illumination	0.0009 lx (Color); 0.0004 lx (B/W); F1.2
Shutter Speed	1/3 .. 1/100000 s
Slow Shutter	Supported
Day/Night	Automatic IR-cut Filter

Video

Stream 1 resolutions	2560x1440, 2304x1296, 1920x1080
Stream 2 resolutions	1280x720, 640x480, 480x240, D1, CIF
Stream 3 resolutions	640x480, 480x240, D1, CIF
Video Compression	H.264, H.264+, H.265, H.265+, MJPEG
H.264 profiles	Base profile, Main profile, High profile
H.265 profiles	Main profile
Video Bitrate	64 .. 8000 Kbps
Bitrate Control	CBR, VBR
Number of video output streams	Up to 10
Region of interest	Supported, 8x
Video output	Supported, 1x (CVBS, BNC)

Image

Image control	Brightness, Contrast, Saturation, Sharpness, Whitebalance, AGC
Day/Night control	Auto, Day, Night, Timer
Wide dynamic range	120 dB (Dual exposure HDR)
SNR	50 dB
Image enhancement	BLC, HLC, Defog, 3DNR, 2DNR, ColorNR
Rotation	0, 180
Mirror	Mirror, Flip
Privacy masks	4 (Solid)
Text and picture overlay	6x Text, Date/time, Camera name, Picture
Image stabilization	Supported (EIS)
Digital Zoom	16x

Analytics

Smart analytics	Line crossing, Intrusion detection, Zone enter, Zone exit, Scene changed, Left luggage, Object removed, Object counting, Loitering, Face detection, People counting, Illegal parking, Simultaneous AI, Video Metadata
Event detections	Motion detection, Tampering, Network disconnected, IP address conflict, Storage full, Storage error, Image quality, Bad focus, Audio detection, Periodical

Specs



Analytics

Event actions , Record video clip, Send message, Upload image

Audio

Audio input	1x Line IN (mono, 3.5mm connector)
Audio output	1x Line OUT (mono, 3.5mm connector)
Compression	G.711alaw, G.711ulaw

Data

Serial port	1x RS-485 2-wire
Protocols	Pelco-D, Pelco-P

Alarm

Input	2x Alarm IN
Output	2x Digital OUT

Network

Interface	10Base-T (IEEE 802.3i) / 100Base-TX (FE, IEEE 802.3u), Self-adaptive RJ45, Flow control (IEEE 802.3x)
Protocols	TCP, UDP, ICMP, HTTP, FTP, RTP, DHCP, DNS, DDNS, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP v1/v2/v3, IGMP v1/v2/v3, 802.1x, QoS, IPv4, IPv6, SSL, TLS v1.0/v1.1/v1.2/v1.3, ONVIF Profile S/G/T/M, SPI, TACACS+
Interoperability	ONVIF Profile S/G/T/M, SPI
Security	Password, Complex password, HTTPS encryption, 802.1x port authentication, EAP, Watermark, IP address filter, Basic authentication, Digest authentication, HTTP authentication, ONVIF WSSE authentication, ONVIF digest authentication, RTSP over HTTPS, RTSP over TLS, Logout after idle timeout, Security audit log, TLSv1.2 (HTTPS, 802.1x), TLSv1.3 (HTTPS, 802.1x)
Web browser	Microsoft Edge, Google Chrome, Mozilla Firefox
Local Storage	uSD, uSDHC, uSDXC, max. 256 GB

Environmental

Operating temperature	-30 .. 60 °C (-22 .. 140 °F)
Relative humidity (Operating)	Max. 95% (non-condensing)
Storage temperature	-30 .. 65 °C (-22 .. 149 °F)
Relative humidity (Storage)	Max. 95% (non-condensing)
Power supply	12VDC (max. 7W), 24VAC (max. 7W), PoE 802.3af (max. 7W)

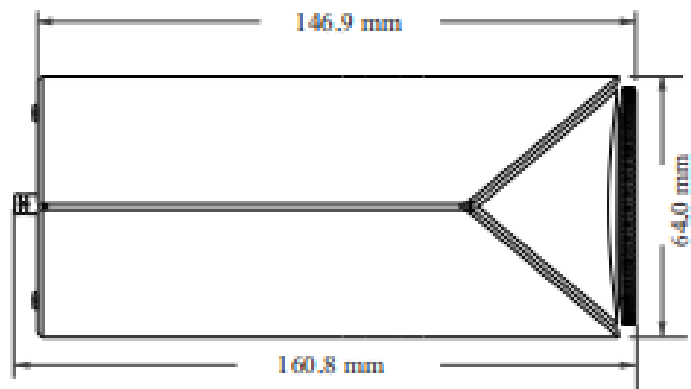
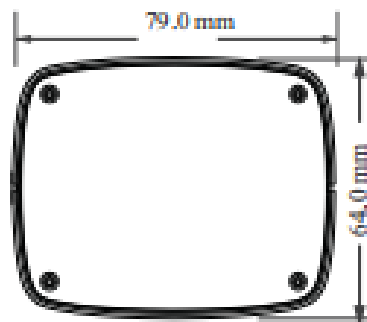
Mechanical

Material	Metal and plastic
Product dimensions	161 x 79 x 64

Specs



Mechanical	
Product weight	
Package dimensions	231 x 103 x 108
Package weight	0.7 kg (1.5 lbs)
Color	Signal white, black
Ordering Information	
BC5004	4MP IP Box camera, 1/1.8" CMOS, CS-mount, DC-iris, ABF



RELATED



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TKH Security HSG04
Outdoor Wiper housing for a fixed box camera



TKH Security HSG05
Outdoor fixed housing, 90-260VAC