BC820v2

4MP IP Box Camera with auto back focus

- ✓ 1/3" Progressive scan CMOS
- ✓ Auto Back Focus
- ✓ P-iris
- ✓ 4MP @ 15 fps (2688 x 1512)
- ✓ 2MP @ 25/30 fps (1920 x 1080)
- ✓ 120 dB WDR
- ✓ Quad-stream H.264 and MJPEG video
- ✓ Day/Night with IR-cut filter
- ✓ 24 Vac / 24 Vdc / 12 Vdc / 802.3af PoE
- ✓ ONVIF Profile S conformant

Note: lenses sold separately. See lenses datasheet

Description

The BC820v2 is a 4MP HD box camera providing clear images. With its P-iris it provides optimal illumination control. The Auto Back Focus ensures easy installation and easy operation.

Multistream high definition

The camera has quad-stream capability for simultaneous streaming of H.264/H.264 or H.264/MJPEG. Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios. 4 Mpixel resolution is available at 15 fps, a full-HD 1080p stream at 30fps can be combined with a SXGA stream at 30 fps. Each selected resolution-frame rate combination can be freely set to a stream number.

Open standards

Multiple options are available to easily integrate the BC820v2 to a video management system. In support of open standards, the camera is compliant with the ONVIF Profile S specification.

Image optimalisation

The BC820v2 provides automatic day/night functionality with configurable thresholds, for use in low-light situations. Backlight compensation enhances image visibility in difficult lighting situations. The BC820v2 provides two modes for wide dynamic range. The first mode uses different gain ratios for different illumined areas to bring details in the darker areas of an image without saturation in the brighter parts. The second mode uses a 2 shutter mechanism which applies two different exposure settings to capture both darker and lighter areas with excellent details. The resulting image is the optimal aggregation of both exposures.
The available image optimalisation methods ensure quality pictures at all times.

Power source choices

The BC820v2 can be powered by 12 Vdc, 24 Vdc, 24 Vac, or over the network with 802.3af-compliant PoE sources.

Privacy masks

Privacy masks cover sections of the image. This feature is often requested for such situations as city centre surveillance and point of sale keypads.

T<H GROUP SECURITY SOLUTIONS

BC820v2

Technical specifications

Camera	
Image sensor	1/3'' Progressive scan CMOS
Effective pixels	2688(H) x 1520(V)
Minimum scene illumination	0.1 lux colour, 0.01 lux (b/w)
Shutter speed	1 - 1/10000 s
Lens mount	C/CS mount
Iris control	P-iris
Focus control	ABF (Auto Back Focus)

Functions	
Privacy masks	5
Text and picture overlay	Date, time, date & time, 5x subtitle (16 characters each), text string (25 characters), image, image transparency
Video motion detection	On / off / by schedule
Video motion detection alarm	Alarm output, record video clip, send alarm message, upload image
Network failure detection	On / off / by schedule
Network failure detection alarm	Alarm output, record video clip, send alarm message, upload image
Tamper detection	On / off / by schedule
Tamper detection alarm	Alarm output, record video clip, send alarm message, upload image
Periodical event	On/Off
Periodical event action	Upload image
Recording	On / off / by schedule
Recording destination	SD card/ Network share

Image control	
Wide dynamic range	
- gamma WDR	On/Off
- dual shutter WDR	On/Off (>120 dB)
Exposure	Auto (P-iris priority, iris size, max gain and min shutter speed configurable) / Manual
White balance	Auto / ATW / Manual / One push
Contrast	Manual
Brightness	Manual
Saturation	Manual
Hue	Manual
Sharpness	Manual
Day/Night function	Auto / night / day / light sensor / LED on / LED off/ Configurable day/night threshold levels/ IR light compensation
Noise reduction	Off, 3DNR (low, medium, high), 2DNR (On/Off), ColorNR (low, medium, high)
Backlight compensation	On/Off
Digital zoom	Up to10x
Image rotation	Normal / Flip / Mirror / 90° (clockwise, counterclockwise) and 180° Rotate

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Technical specifications

Video				
Compression algorithm(s)	H.264 (baseline / main / high profile); MJPEG			
Number of compression instances	Quad stream. Any combination of H.264 streams with possibly one MJPEG stream.			
Output streams	Any output stream can be freely configured to one of the resolution/frame rate formats.			
Supported resolutions	2688x1512 (4MP); 2560x1440; 2304x1296 (3MP); 1920x1080 (1080p); 1280x1024; 1280x720 (720p); 1024x768; 800x600; 720x576 (D1); 640x480; 352x288 (CIF)			
Compression capabilities	(indication, other combinations possible)			
Resolution format	format 1	format 2	format 3	format 4
H.264 in 15 fps	2688x1512	1280x720		
H.264 instances in 50/60fps (at lower frame rate higher resolution may be possible)	1280x720 1280x720 1280x720	- 640x480 640x480	- - 352x288	- - -
H.264 instances in 25/30fps (at lower frame rate higher resolution may be possible)	2304x1296 2304x1296 1920x1080 1920x1080 1920x1080	- 800x600 1280x1024 1280x1024 1280x720	- - - 352x288 720x576	- - - - 352x288
H.264 instances in 25/30fps WDR 2 shutter mode (one can be MJPEG) (at lower frame rate higher resolution may be possible)	1920x1080 1920x1080 1920x1080	- 720x576 720x576 (15fps)	- - 352x288 (15fps)	- - -
MJPEG	One of the above resolution formats in each instance can be MJPEG instead of H.264 if the resolution is lower than or equal to 1920x1080			
Compression bit rate control	Constant bit rate (CBR), variable bit rate (VBR)			
Output bit rate (per H.264 stream)	Up to 20480 kbit/s			
Total H.264 output	26624 kbit/s			
Number of video output streams	Up to 20 (RTSP)			
Total output data rate (max)	50000 kbit/s			
Video frame rate	1 to 60 fps / 1 to 50 fps			
Analogue video output	PAL/NTSC			
- Connector type	BNC (1.0 Vpp in 75 Ω)			

Audio	
Two-way stereo audio	Microphone in / line in / line out
Compression	G.711 (µ-law, a-law) / G.726 / AAC / PCM
Bit rate	G.711: 64 Kbps G.726: 16 Kbps, 24 Kbps, 32 Kbps, 40 Kbps AAC: 128 Kbps PCM: 128 Kbps, 256 Kbps, 384 Kbps, 768 Kbps
Sample rate	G.711: 8 KHz / G.726: 8 KHz / AAC: 48 KHz / PCM: 8, 16, 24, 48 KHz
Input level, Output level	Adjustable gain
Connector type	Female phone jack, ø 3.5 mm (2x)

Data	
Serial port	RS-485, 2-wire
Protocols	Pelco D, Pelco P
Connector type	Multifunction terminal block (D+, D-)

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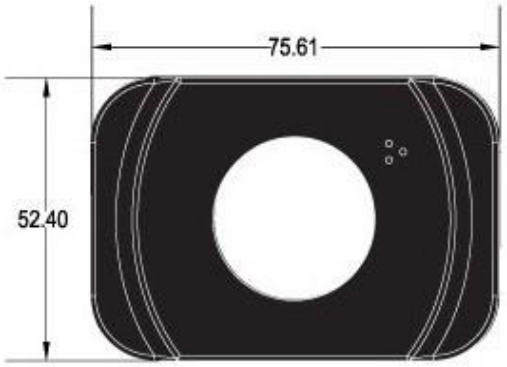
Technical specifications

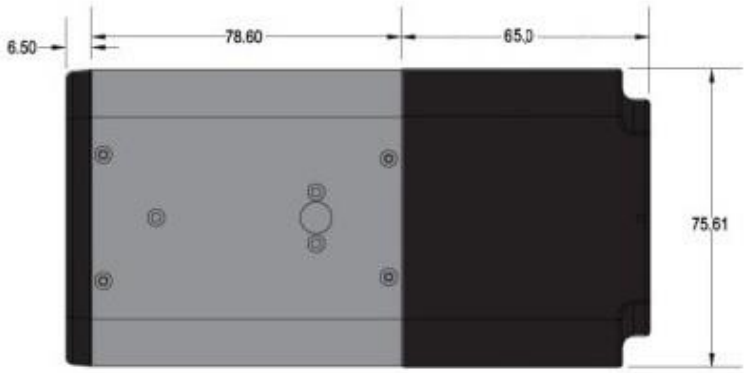
Alarm inputs/output	
Input	2x 0 - 5 V, 10 kΩ pull-up
Output	1x Photo relay output 300 Vdc/ac
Operational modes	Normally open; normally closed
Connector type	Multifunction terminal block (I1+, I- I2+, O+, O-)
Storage	
Storage options	Micro SDXC card, 64 GB
Network	
Interface(s)	10/100 Ethernet
Network protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, IGMP, PNAC (IEEE 802.1x), QoS
Connector type	RJ-45
Management	
Supported browsers	Internet Explorer (6.0+), Chrome, Firefox, Safari
Security	HTTPS, IP Filter, PNAC (IEEE 802.1x)
Protocols	UPnP, SNMP, ONVIF Profile S
Password levels	User and Administrator
User accounts	20
Powering	
Power consumption	
- System	Max. 3.5 W
- ABF (Auto back Focus)	Max. 3.2 W
Power	24 Vac / 24 Vdc / 12 Vdc / 802.3af PoE
Connector type	Barrel connector (5.5 x 2.1 mm) Adapter to 2-pin terminal block included
Environmental	
Start-up temperature	-15 ºC (5 ºF)
Operating temperature	-20 ºC to +55 ºC (-4 ºF to +131ºF)
Relative humidity	10% to 90%, no condensation
Mechanical	
Dimensions (camera body)	150 x 75 x 52 mm (5.9 x 3.0 x 7.1 in) (without lens)
Weight	365 g (0.80 lbs)
Colour	Black/Grey
Ordering information	
BC820v2	Network box camera, 4MP, CMOS, day/night, H.264/MJPEG, P-iris
WM04A	Wall mount, Indoor, box camera
PSA-UN12DC with ferrules	Power adapter, 110-230 Vac, 60/50 Hz to 12 Vdc, 1.5 A, ferrules, US/EU/UK plug adapters (included)
HSG02LV	Housing, fixed camera, heater/blower, 90-230 Vac
HSG03LV	Housing, fixed camera, IR illuminator, heater/blower, 90-230 Vac
HSG/WALL	Bracket, wall
HSG/POLE	Bracket, pole
HSG/CORNER	Bracket, corner
HSG/CEILING	Bracket, ceiling
HSG/SUN	Sunshield for fixed camera housing

Accessories

WM04A		Wall mount, Indoor, box camera

Dimensions





The quality management system used in the development, production, sales, and support of this product is ISO 9001 certified by LRQA.

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