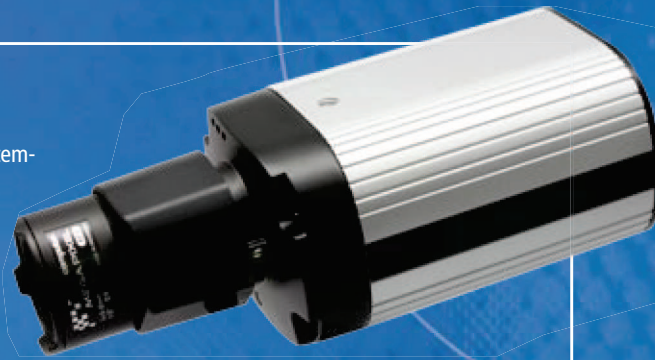


In Focus: Convison CC-8171

With the CC-8171 Convison, a subsidiary of PCS Systemtechnik presents the first model of a new network camera series. With the CC-8000 series, Convison offers excellent image quality with attractive value for money. All models in the CC-8000 series are ON-VIF-compatible and support IPv6. The 5 megapixel camera provides an infra-red cut-off filter, which ensures good imaging quality by day and night. The high resolution allows the user to identify the finest details of the recorded surveillance image – even with the use of the digital zoom.



CAMERA TEST



Performance

Performance assessment when used with 1,000 Lux

With optimum lighting conditions, the camera delivers a good image, which impresses with a clear, natural picture without any colour cast. The contrast range is good. The fine gradation is only slightly reduced with very bright or dark colours. All of the image elements (e.g. fine lines in the test chart) are reproduced very sharply and without interference. No significant smearing can be detected with moving objects and hardly any image noise can be observed.

Performance assessment when used with less than 1,000 Lux

The camera compensates relatively rapidly for fluctuations in lighting. Down to 10 Lux the camera compensates the contrast ratio well. The image retains full contrast and colours are reproduced clearly and without colour cast. While in general the sharpness of the image hardly reduces, definite blurring effects are noticeable especially at 10 Lux and below. With very poor illumination of the scene (5 Lux and less) a definite increase in image noise is noticeable and the contrast also suffers somewhat. At 0.5 Lux the camera switches to b/w mode. Here too, strong image noise can be seen. It should also be noted that the otherwise stable image rate of 10 images/second is to some extent not achieved at 2.5 Lux and below. Jerking is apparent. In some cases the imaging rate reduces to 4 images/second.

Performance assessment in backlight situations

The camera compensates relatively rapidly for suddenly occurring backlight in a dark environment and provides a stable image in which background details are well recognisable after about 3 seconds. The backlight source only blooms slightly.

Performance assessment in use: Bandwidth measurement

The camera's average utilisation of bandwidth is approx. 7 MBit/second. Between 20 and approx. 2 Lux definite fluctuations both upwards and downwards are apparent, due to the compensation characteristics. A maximum of 12.9 MBit are used.

Conclusion

Especially with good illumination of the scene, the day/night fixed camera with a maximum resolution of 5 megapixels gives a sharp, high-contrast image with clear colour reproduction. Thanks to multi-streaming, the camera can provide several image streams, in various resolutions if required. In addition, up to four observation areas (ROI - Region of Interest) can be defined, which can each be communicated with independent video streams.

Technical data for the camera test

Manufacturer	Convison
Model	CC-8171
Firmware version	1.1.2
Distance to test chart	0.5 m
Lens used	Fujinon MP 2.8-8mm F1.3
*Focal length set	6 mm
*Compression method	H.264
*Max. Resolution	2592 x 1920
*Compression	50%
I-Frame-interval	1 second
Max. stream bandwidth	unlimited
Measured frame rate	10 fps
Average bandwidth	7.00 Mbit/s

* The camera was integrated into the test system using 'default' settings and modified with the test criteria listed above.

Assessment with differing illumination conditions

Criteria Lux values	1000 Lux	100 Lux	10 Lux	0,5 Lux	0 Lux + *BL1
Colours	1.5	1.5	2	b/w	b/w
Contrast	2	2	2	3	2.5
Focus	1.5	1.5	2	2	2.5
Motion sharpness	2	2.5	3	3	2.5
Image noise	1.5	2	2.5	3.5	2
Recovery from backlight	–	–	–	–	3
Performance against backlight	–	–	–	–	2

Assessment according to the following grades: 1 (Excellent) 2 (good), 3 (average), 4 (satisfactory), 5 (limited), 6 (poor).
*BL= Backlight