Test the Best!

Seetec and GIT SECURITY test video cameras in the test lab of the Hardware Competence Center at SeeTec under standardized conditions. The results provide a solid basis for the planning of IP video projects and help to avoid embarrassing surprises. For the test procedure video sequences are created under various different fixed lighting conditions and subsequently evaluated. Movement in the picture as well as night and backlight conditions are also included.

In focus: Interlogix TVD-M3210V-2-P

The Interlogix TVD-M3210V-2-P is a compact megapixel dome camera with 3MP resolution, that complies with both the ONVIF and PSIA standards and is intended for inside use. The camera uses H.264 compression technology and employs a dual-stream process to adapt the bandwidth of the data to the user's requirements. The video data can also be stored on an internal SDHC memory card, for example if the network fails.

CAMERA TEST

Performance

Performance assessment when used with 1,000 Lux
If good lighting is available the Interlogix TVD can impress with brilliant colors. This benefits above all the sharpness and the contrast.

Performance assessment when used with less than 1,000 Lux
The clarity can also be maintained when operating at light levels below 1000 Lux. The imaging of static objects remains very good throughout. Although the colors fade with decreasing light, this is compensated for by generally constant contrast. Only a slight streaking of moving objects affects the picture. At 0.5 Lux the camera automatically switches into night mode (b/w imagery) and provides a generally clear picture with deficits in motion clarity and image noise.

Performance assessment in backlight situations
In contrast to the behavior of the camera at light levels around 0.5 Lux, the motion clarity under backlight is significantly better. The sharpness is continuously reduced and doesn't abruptly deteriorate. Just the large light cone spoils the image as it covers a large portion of the whole picture. The camera switches at 0.5 Lux to b/w and also stays in that mode under backlight conditions.

Performance assessment in use: Bandwidth measurement
The camera was tested under H.264 with maximum resolution. The bandwidth usage down to c. 0 Lux remained relatively constant at an average of 4.15 MB/s. The data rate reduces under poor lighting. Under backlight a brief peak of 9MB/s was measured. There can be a loss of quality in areas with less light, caused by the attempt to keep the bandwidth usage at an average of 4 MB/s without regard to the external conditions.

Conclusion
The Interlogix TVD-M3210V-2-P delivers a clear picture under good lighting conditions with good color reproduction and a continuously excellent sharpness. The sharpness only reduces on moving objects as less light becomes available, although this happens gradually and is therefore acceptable.

Technical data for the camera test

Manufacturer	Interlogix
Model	TVD-M3210V-2-P
Firmware version	V3.0.e
Distance to test chart	0.3 m
Lens used	2.7-9mm, F1.4 auto iris
* Focal length set	6 mm
*Compression method	H.264
*Resolution	2048 x 1536
*Compression	–
I-Frame-interval	1 second
Max. stream bandwidth	variable
Measured frame rate	12 fps
Average bandwidth	4.15 Mbit/s

*The camera was integrated into the test system with the "default" settings. The settings were modified according to 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	2	2	b/w	b/w
Contrast	2	2	2	3	3.5
Focus	1.5	1.5	1.5	2	2
Motion sharpness	2	2.5	3	3.5	3
Image noise	2	2	2.5	3.5	2.5
Recovery from backlight	–	–	–	–	3
Performance against backlight	–	–	–	–	3.5

Assessment was performed according to the rating system of 1 (very good) to 6 (unsatisfactory).
BL= Backlight *in the beam of a white light LED