

Innovation: The Best of 2015

Network Zone: Selecting a Switch

Assessment: Event Triggered Surveillance

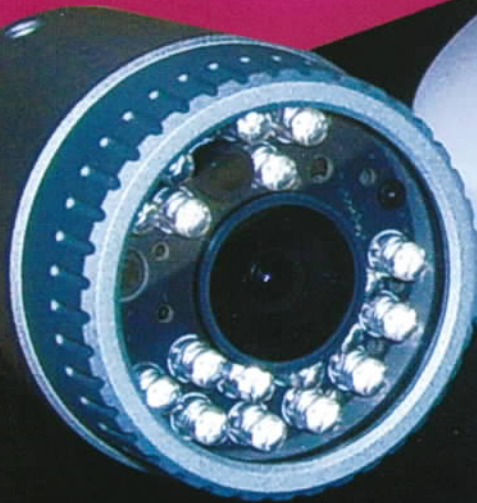
Bulletin: The Latest Technologies

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Plug and Play

Simplicity and scalability in one system?



Tested: Megapixel Lenses



Technology: Dedicated Counting

ROUND-UP: Best of 2015

Dallmeier: DF5200HD-DN



The DF5200HD-DN is a networked day/night camera which delivers HD1080P streams. It utilises H.264 and M-JPEG compression, and multiple streaming is supported. The camera includes an integral 4.5–10mm varifocal motorised lens. The camera features a 1/1.9 inch image sensor, and sensitivity is claimed to be 0.0002 lux. Other features include edge storage, P-Iris support and 120fps with an optional upgrade. Power is PoE or 24V AC.

The Dallmeier DF5200HD-DN is a camera that will make most installers and integrators smile. The image is pin sharp, low light performance is good, and because the lens is factory configured, it is easy to achieve the best quality. Processing is well implemented too!

GJD Security: D-Tect3

The D-Tect3 from GJD Security is an external detector with a range of 30 x 30 metres. The detector makes use of both PIR and 10.587GHz microwave technologies. Mounting height is 3 metres, but this can be increased to 6 metres if required.



Other features include integral EOL resistors, variable temperature compensation and light sensing, and pulse count. The housing is specified as IP65.

The D-Tect3 delivers consistent and reliable performance. Stability gives no cause for concern, and the vast majority of nuisance activations were ignored. Despite this, accuracy was high and all genuine intrusions were detected as expected.

The flexibility with regard to positioning worked well and allowed a good and accurate alignment with linked cameras.

In this round-up, Benchmark looks back at some of the more memorable products which received Recommended status through testing during 2015.



Milestone XProtect Corporate

Milestone XProtect Corporate is the company's top-end VMS. It supports an unlimited number of cameras per server, an unlimited number of servers and an unlimited number of users. The video client for system control is free, and so offers freedom with regard to system management. Mobile connectivity is also supported.

XProtect Corporate supports a wide range of video formats including H.264, MPEG-4, M-JPEG and MxPEG. The solution is compatible with devices from over 100 manufacturers, including the majority of the manufacturers of professional surveillance equipment.

Features include support for failover servers, scheduled archiving, interactive mapping, support and management of edge storage devices, as well as integration with system elements including analytics, ANPR and video wall management.

With XProtect Corporate, it's the capabilities of the Rules options which really stand out. Rules can be as complicated or as basic as you need. The depth of options available deliver true flexibility.

Texcom – Premier Elite 24-W



The Premier Elite 24-W is a Grade 2 control panel with integral keypad. It uses Texcom's Ricochet platform, which offers mesh-based wireless connectivity. This permits healing of any interrupted wireless links.

The panel supports up to 24 inputs, of which four are hardwired, with the option to expand this number. Up to 16 Ricochet inputs are supported as standard. The panel also supports nine outputs.

Supporting two areas, there is the option for three part-sets per area. The panel is capable of delivering SMS messaging, and a choice of communication modules is available.

Supporting up to 25 users, interaction can be carried out via the on-board keypad, or additional keypads can be added. Setting and unsetting can be carried out via the integral proximity reader. There is also a user-friendly remote control device, one of which can be allocated to each user.

Avigilon 8L-H4PRO-B

The 8L-H4PRO-B is a part of Avigilon's HD Pro range of cameras. It delivers 8 megapixel video footage at 3840 x 2160 pixels. Frame rate is 11fps. The device makes use of a 27.2mm image sensor, and the true day/night unit supports the use of H.264 and M-JPEG compression. Multiple streaming is supported, as are Regions of Interest (ROI).

The camera boasts 70dB dynamic range. It also features Avigilon's LightCatcher technology. Sensitivity is claimed as 0.005 lux at F1.4. The 8L-H4PRO-B makes use of lenses manufactured for digital SLR cameras.

The camera includes the manufacturer's HDSM technology. This stands for high definition stream management, and is an intelligent function designed to manage high bandwidth streams. It also makes use of Avigilon's H4 platform. The H4 platform works with HDSM to enhance video management and drives greater efficiencies in terms of low light performance and image quality.

The latest HD Pro cameras also are enabled with self-learning analytics, but the camera needs to be linked to the ACC VMS in order to use this functionality.

The camera has the typical array of everyday surveillance functions. Motion detection, electronic shutter control, auto white balance, privacy zones, audio support, alarm I/Os and edge recording via SD cards are supported. Power is PoE; 12V DC and 24V AC supplies can also be used.

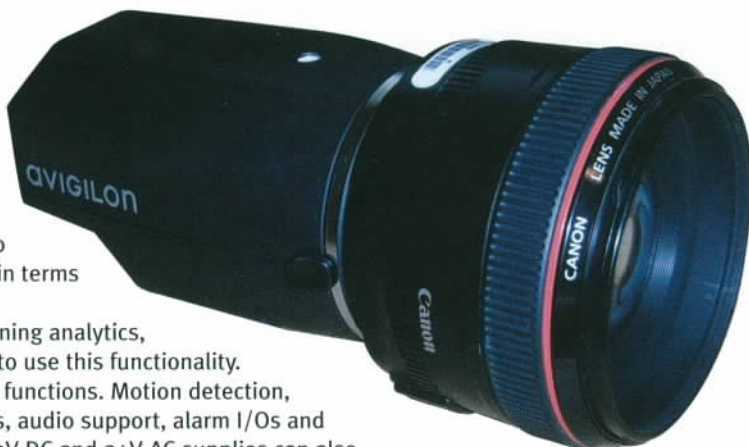
Panasonic: WV-SFN480

The WV-SFN480 is a networked 9 megapixel 360 degree camera. It utilises H.264 and M-JPEG compression, and delivers a 2992 x 2992 pixel video stream at 15fps. It can also deliver video streams of 2048 x 2048 pixels at 25fps. There are a variety of other viewing configurations. The camera streams the 360 degree view and uses client-side dewarping. Using a 1/2 inch MOS sensor, sensitivity is quoted as 0.3 lux (F1.9).

Bandwidth management is aided by the VIQS functionality. This allows image quality to be varied between regions of interest and other areas in the protected space. Other features include digital noise reduction, WDR, adaptive black stretch, intelligent motion detection, privacy masking, two-way audio, alarm I/Os and SD-based edge recording. There are intelligent video analytics and heat mapping features, but these require the use of extension software. Power is PoE or 12V DC.

Image quality is very good, and it actually belied the fact that resolution was lower than some of the other cameras on test. Part of this was inevitably be down to the fact that the WV-SFN480 allows the installer or integrator to allocate enough bandwidth to handle a full 360 degree image.

The dewarping options all delivered clean and controllable streams and ePTZ motion was smooth.





Axis: AXIS Camera Companion

Axis Camera Companion is a free-of-charge download; there is only one 'flavour' available, and no licensing is required. It only works with Axis Communications devices. To download it you will need to register for a MyAxis account, which again is without charge.

The software supports up to 16 video inputs, and is compatible with cameras and encoders running firmware version 5.40 and higher. It supports all resolutions and frame rates using H.264 compression. Telemetry control can also be achieved.

A DVR, NVR, server or PC is not required to operate the system – a PC is required for initial set, and video is viewed via a PC or mobile device running an appropriate viewing App.



WD Purple

The Purple range from WD is rated to support up to 32 simultaneous streams of HD video, and for arrays of up to eight HDDs.

Available in 1, 2, 3, 4, 5 and 6TB variants, the 3.5 inch SATA drives are designed to handle continuous video streaming. Write speed is specified as a maximum of 6Gbps. The units also have low power consumption.

The drives feature AllFrame Technology. This feature reduces frame loss which the manufacturer states is typical when standard desk-top hard drives are used. It also enhances playback and reduces artefacting, according to WD.

The drives are quoted as having a 1 million hour mean time before failure, using the assumption of regulated temperature. This gives a very good probability of survival in the right conditions. The drives include a three year warranty.

Bosch Dinion IP starlight 8000



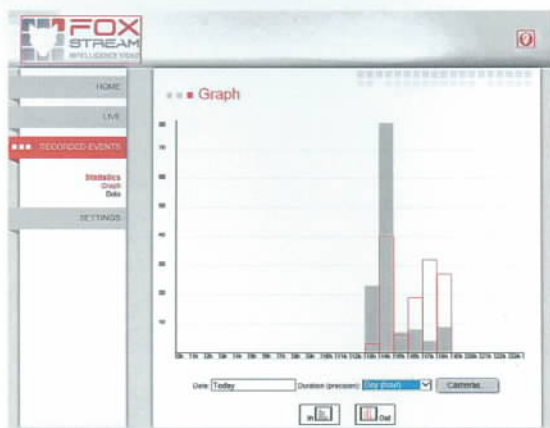
The Dinion IP starlight 8000 is a 5 megapixel camera, and makes use of a 1/1.8 inch CMOS sensor. It delivers real-time video footage at 5MP in 16:9 (2992 x 1680) and 4:3 (2704 x 2032) aspect ratios, along with HD1080p and HD720p streams.

The camera is a true day/night unit and supports the use of H.264 and M-JPEG compression. Multiple streaming is supported with user-configurable frame rate and bandwidth for each stream. Regions of Interest (ROI) are also supported.

Quoted sensitivity figures are 0.0121 lux in 5MP mode, or 0.00825 lux in HD1080p mode. Both figures are quoted for a 30IRE image.

Other features include 97dB WDR, two-way audio, intelligent automated exposure, bit-rate optimisation, edge storage via an integral MicroSD memory card slot, posting of alarm images to Cloud services and storage management.

The 8000 supports intelligent video analysis and allows the use of up to eight rules from a choice of object within detection field, line crossing, loitering, condition change, person following route, camera tampering, object left, object removed, entering a defined area, exiting a defined area, crowd detection and people counting.



Foxstream Foxcounter

FoxCounter is a dedicated people counting application from FoxStream Intelligence Video. The application can be used for bi-directional counting, and therefore can also be used to measure occupancy as well as to track traffic trends.

FoxCounter is available for the Samsung Techwin Open Platform and the Axis Camera Application Platform. The application is supplied as a single file, along with a simple PDF instruction manual.

FoxStream does not recommend using the camera running the App for other surveillance purposes, and mounting needs to be above the counting area, at a height of between 2.5 and 6 metres.

Recorded counts can be saved and exported as a .csv file, or displayed as a graph. The App delivers a degree of customisation with regard to how the count data is viewed.

FoxCounter is a simple people counting plug-in, and it works well. It is quick to deploy, works very much as a standalone App should, and adds a good degree of functionality to the camera. Accuracy was high, and the simplicity of reporting doesn't detract from its appeal.

Takex: PIR-T15WE



The PIR-T15WE from Takex is designed for outdoor use. It offers four operational modes to meet the needs of differing applications. Detection range is 15 metres, and the coverage pattern varies between 80 and 85 degrees dependent upon the selected mode; this also affects the mounting height, which can vary between 2 and 6 metres.

The sensor utilises a triple mirror set-up with fuzzy logic processing. Other features include pet immunity, detection area adjustment and a dual output to allow triggering of secondary devices. The housing is specified as IP55.

Once settled, the detector is impressive. Not only did it cope very well with the standard tests, but when we pushed it a bit to see how the modes worked, it took pretty much everything in its stride.

It was consistent with regard to both stability and catch performance. Whilst it ignored the source of many nuisance activations, it also detected all genuine intrusion attempts, including cloaked events.

Dahua DH-IPC-HFW8281EP-Z



The DH-IPC-HFW8281EP-Z is a bullet-type integrated camera with integral infrared illuminators with a stated range of 50 metres. It makes use of a 1/1.9 inch 2 megapixel progressive scan CMOS sensor. Signal to noise ratio is claimed to be more than 50dB, and sensitivity is claimed as 0.005 lux at F1.65 for a colour image.

The camera supports H.264 compression (High, Main and Base) as well as M-JPEG. Triple streaming is supported: the main stream can be HD1080p or HD720p, at rates of up to 50fps; the second stream can be either D1 or CIF at rates of up to 25fps; the third stream can be either HD1080p, HD720p or D1 at rates of up to 25fps. Bit rate can be up to 8Mbps.

The lens is a 4-8mm F1.65 varifocal unit. It is motorised. The camera boasts the usual features for a good mainstream device: day/night, BLC, auto white balance, AGC, AES, 3D noise reduction, image stabilisation, privacy masking, regions of interest, two-way audio, alarm I/Os, edge recording via a microSD card slot, a choice of PoE or low power, app-based viewing, etc..

It also boasts smart detection and intelligent functions. The former includes analytics rules for virtual tripwire, intrusion into alarm zones, scene change, object left/missing, camera defocus detection, face detection and audio detection. The latter intelligent functions include people counting and heat mapping.



Risco Group – Agility 3

The Agility 3 is a Grade 2 blank end-station control panel; our test unit was supplied with the Agility 3 wireless remote keypad. Up to three remote keypads can be supported. The control panel supports up to 32 wireless inputs; wired zones can be supported using an optional input/output board.

The system can support up to eight wireless PIR cameras. Video is supported via the Risco Cloud; this functionality is dependent upon the optional IP communications module being fitted. The panel also supports four hardwired outputs, again with the input/output board. For ease of installation, the system uses a voice-guided menu system. It also supports two-way audio communication.

The system offers three partitions, as well as up to 16 Follow-me destinations to allow event notification. The control panel also delivers SMS messaging and X-10 connectivity for home automation.

It supports up to 32 users, with control via the remote keypad, prox tags or remote control devices.

Samsung Techwin - SND-6084P

The SND-6084P is a networked day/night camera which delivers HD1080p streams at frame rates of up to 50fps. It utilises H.264 and M-JPEG compression, and multiple streaming is supported. The lens is a 3-8.5mm motorised varifocal unit.

Features include BLC, WDR, DNR, image stabilisation, defog, alarm I/O and two-way audio. Motion, face and audio detection functionality is also included, as is video analytics. The camera also supports Samsung's 'open platform' apps. Edge recording is provided via a MicroSD card.

The SND-6084P's tamper protection responded accurately to attempts at masking the camera with both dark and light masking materials. Detection was also accurate with partial masking, scene change and transparent film, and was relatively swift.




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