

PIXIM REVIEW

School/Campus Security

Pixim-Powered Cameras Offer “Peace-of-Mind” for Parents

Safety and security have become top priorities for schools, colleges, and universities everywhere. In addition to metal detectors, many schools are installing security cameras to monitor activities within classrooms, lecture halls, residence facilities, and hallways, as well as outside campus buildings. The wide variation in lighting among these areas presents a challenge that traditional CCD-based security cameras cannot overcome.

Common security camera problems for schools and campuses include:

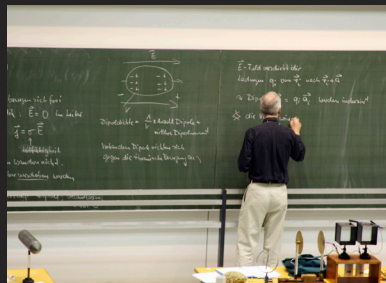
- › Lack of detail in backlight, under fluorescent lights, or outdoors
- › Low clarity in shadows, such as dark corridors
- › Image washes out due to glare and reflections from glass and metal
- › Color inaccuracies in varying lighting conditions
- › Low-quality Digital Video Recorder (DVR) recordings

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At-A-Glance:

Pixim Digital Pixel System[®] (DPS) Technology

- › Widest Dynamic Range (WDR): Captures up to 1024 times more data (dynamic range) than standard CCD cameras
- › Signal-to-noise ratio (SNR): >50 dB (max)
- › Sensitivity: <0.5 lux (CMY) minimum illumination f/1.2, 50 IRE
- › Resolution: 540 horizontal TV lines (HTVL) equivalent



Pixim-Powered Cameras Offer “Peace of Mind” for Parents [continued]

Pixim’s Digital Pixel System® (DPS) ultra-wide dynamic range technology, a true breakthrough in imaging technology, delivers unprecedented image quality in all lighting conditions. Cameras powered by Pixim’s specialized image processing chipsets can significantly enhance school and campus security through the following capabilities:

- ▶ **Widest dynamic range:** Captures highlight and shadow detail in the same scene.
- ▶ **Highest total resolution:** Makes it easier to distinguish image features and details, even in highly variable lighting conditions.
- ▶ **Superior color rendering:** Accurately displays color even in difficult lighting such as backlight, mixed indoor/outdoor scenes, glare, reflection, and fluorescent lighting.
- ▶ **No “camera blindness”:** Eliminates the vertical smear, pixel blooming, and other image artifacts commonly encountered in high-contrast scenes.
- ▶ **High image compression:** Improves image quality with smaller file size – allowing DVRs to record with higher frame rate or higher resolution, or both, while maintaining the same total recording time.



The images show side-by-side frames captured from a typical building lobby application. The subject and both indoor and outdoor

detail are all clearly visible in the Pixim DPS image on the right. The outside details are not clear in the CCD image on the left.

The University of Arizona installed security cameras in its libraries, residence halls, and fraternity and sorority houses to improve security.

Security cameras based on Pixim technology enable school and university administrators and officials to capture details of people and activities, even in variable and challenging lighting conditions and despite low-quality DVRs. The ability to detect threatening people or actions before they get out of hand is one way to prevent injury to people, as well as damage to facilities.



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