

PIXIM REVIEW

Financial Services: ATMs

Are Your Security Cameras Capturing the Details?

Identity theft is a growing problem, and ATM machines are one locale where it, as well as cash robberies, can take place. To promote safe use and easy 24-hour access, ATMs often are located on the outside of a building or in a glass-enclosed lobby – which might help deter grab-and-run cash robberies, but which also puts the ATMs in clearer view of people trying to steal a person's PIN number.

Unfortunately, because traditional ATM security cameras don't perform well in common ATM lighting conditions – e.g., strong backlighting, high-contrast lighting, glare – they are less than effective in capturing details of potential or suspected identity thieves or scene details occurring behind the customer.

Continued on back →

Pixim-Powered Cameras Tackle Difficult ATM Lighting Conditions

Because of the potential for cash robberies and identity theft, ATM machines use security cameras to monitor the people conducting transactions, as well as the surrounding area. These cameras must operate 24/7 in all lighting conditions, including bright sunlight, darkest night, and outdoor parking and street lights. If they're

located in glass-enclosed lobbies, the ATM cameras must contend with fluorescent lighting and glare through the windows. In many of these lighting conditions, traditional CCD cameras cannot capture enough detail to identify suspected thieves or robbers.

Continued on back →

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



Are Your Security Cameras Capturing the Details? [continued]

Pixim-Powered security cameras, with their ability to capture detail from both the darkest and lightest areas of a scene simultaneously, can help identify identity theft suspects – whether their faces are cast in shadows, surrounded by strong backlight, or caught in the intensity of direct sunlight.



› Significant loss of information in strong backlight

› Superior image quality despite harsh lighting

According to the 2006 ATM Deployer Study, ATMs in the U.S. perform an estimated 8 billion transactions per year, representing \$600 billion in dispensed cash.

Pixim-Powered Cameras Tackle Difficult ATM Lighting Conditions [continued]

Common security camera problems for ATMs include:

- › Lack of detail, particularly of faces, in high-contrast or backlit conditions
- › Glare from windows obliterates or distorts images
- › Common image artifacts such as vertical smear and pixel blooming distort pictures
- › Color inaccuracies in varying lighting conditions
- › Low-quality Digital Video Recorder (DVR) recordings

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 ATM security through the following capabilities:

- › **Widest dynamic range:** Captures highlight and shadow detail – including faces in strong backlight – in the same scene.
- › **Highest total resolution:** Makes it easy to distinguish target image features and details, even in highly variable lighting conditions.
- › **Superior color rendering:** Accurately displays color even in difficult lighting such as indoor/outdoor, glare, 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.

Pixim's ultra-wide dynamic range, high total resolution, excellent color rendering, and avoidance of blooming and smearing enable ATM security cameras to capture detail from both the darkest and lightest ranges of a scene simultaneously. This means that the camera can see facial details of people entirely in the shadow of the ATM machine, or backlit by strong glare, or standing a bit further back in bright sunlight.

As a result, the images captured by Pixim-Powered security cameras can help identify suspects and can be used as evidence to prosecute criminals. ATM machines become safer places for transactions, and financial institutions and other ATM owners can optimize their revenues from these convenient machines.



1395 Charleston Road
Mountain View
CA 94043

P: 650 934.0550
F: 650 934.0560

www.pixim.com

