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Pixel Video Fusion™ Camera

The Pixel Video Fusion™ camera is a multi-mega-pixel high-definition camera that utilizes a 1/2.5" CMOS image sensor with 2560 x 1920 resolution. This results in 15x the definition of state-of-the-art video surveillance cameras. Automatic sensor-level control enables the camera to be dynamically adjusted in real time according to lighting conditions, providing full color fidelity–day or night.

Pixel Video Fusion™ camera's full featured toolset delivers the following:

- Day and night color operation
- Automatic camera discovery
- Auto-iris lens configuration
- Single cable power and data interface
- CAT6 and fiber connectivity options
- Multiple lens configuration
- Industrial strength housing
- Option to mount in an environmentally protected housing
- Client and Browser-based web access

Pixel Video Fusion™ camera's unique features include:

- Remotely upgradable hardware
- Embedded Pixel advanced pre-compression automation engine
- Up to eight independent video streams
- Intelligent camera synchronization
- Camera alignment utilities
- Uncompressed region of interest streams (equivalent to a 9x optical zoom)
- Assisted-focus tools with on-board LCD support

Camera - Side View

Camera - Back View

Each camera produces up to two independent video streams that are dedicated to recording and scene overview. The first stream produces a user selectable MJPEG stream, which is recorded using the Pixel Video Fusion™ server. The second produces a down sampled version of the first stream, which is transmitted over the network. This results in a 9x reduction in the video stream, conserving bandwidth while maintaining high-resolution recording. The remaining streams can be statically or dynamically configured using the Viewports™ Management Suite. Pixel's design allows data from multiple cameras to be fused and synchronized. Because of this unique capability, 3D analytics can be performed on video data, resulting in information that cannot be acquired by any conventional system.

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Specifications

Camera

Image Sensor	1/2.5" CMOS Progressive scan
Effective Pixels	2560H x 1920V
Lens Selection	DC Auto iris (5-100mm varifocal)
White Balance	Fixed
Dynamic Range	70 dB
Meta Data	Camera ID, Analytic data set
Analog Video Output	Used for set-up
Lens Mount	CS-mount with C-adapter
Focus Assistant	Auto with LCD support

Digital Output

Camera Protocol	IEEE 1394-2008
Server Protocol	TCP/IP
Digital Connection	RJ-45 connector
Connection Cable	CAT-6 (Up to 70 meters direct connection to server. Expandable to 1.2 km using Pixel Repeaters.) CAT-5e (Up to 50 meters direct connection to server. Expandable to 850 meters using Pixel Repeaters.) Fiber (Up to 7.5 km multi-mode or up to 37.6 km single mode.)
Image Compression Method	MJPEG (recording and overview streams) Uncompressed (direct digital streams)
Frame Rate	Up to 10 fps (1920H x 1080V)
Data Bandwidth	400 Mbps (70 meter) self-optimizing based on cable performance
Video Streams	2 overview MJPEG streams with 1 direct digital stream, and up to 8 direct analytic streams

General Specifications

Power Source	Pixel digital input card (48 VDC) (Single cable interface provides all data and power)
Power Consumption	< 4 watts
Status LEDs	Power, connection status
Operating Temp.	0°C to +50°C
Operating Humidity	0% to 90% (non-condensing)
Dimensions (WxHxD)	74mm (W) x 74mm (H) x 143mm (D) (without lens)
Weight	500 g (without lens)
Mounting Options	1/4" – 20 UNC
Connectors	Alarm inputs: 4 pin terminal Alarm outputs: 4 pin terminal Auto iris: 4-pin Digital video/power: RJ-45
External I/O	Consult factory
Environmental Protection Housing	Off-the-shelf compatibility

Pixel Velocity

3917 Research Park Drive, Suite B1 ■ Ann Arbor, MI 48108
p 734.213.3715 ■ f 734.369.5031 ■ www.pixel-velocity.com

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