

## **Panoram Technologies**

### **FullView™ 360**

- 360° capable image capture at 440 x 4000 pixels
- 15 to 22 frames per second real-time
- Durable, weatherproof, aluminum housing
- Compatible with multiple Panoram displays
- Solid state construction

The FullView™360 video camera is a new category of imaging device which is ideal for use with Panoram's extreme wide aspect ratio display systems. The camera provides a real-time (15-22 Frames/second), 360° or 180° native field-of-view.

The image can then be formatted onto the Panoram PV290 display in various ways depending on the user's applications and needs.

This flexible formatting provides powerful interactive control to the user allowing them to monitor a full 360° view as well as a higher resolution detail of any 180° section. Additionally, there is a digital zoom feature that allows the user to examine specific areas of interest. All these capabilities and controls are completely electronic. The FullView camera is constantly capturing the entire 360° world around it. With all selections and controls being solid state, there are no motors or actuators making the FullView cameras ready for reliable operation in difficult environments.



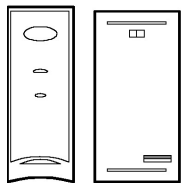
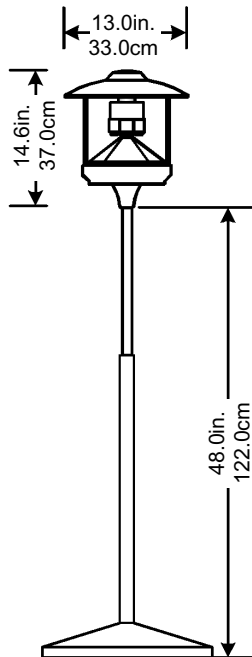
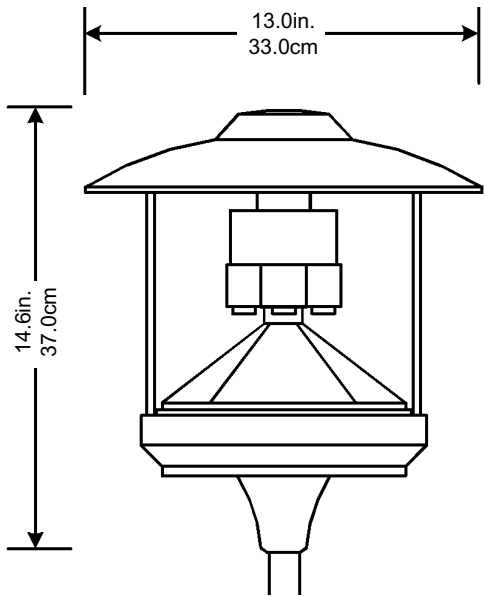
The camera control unit for the CCD cameras can be housed in a standard rack unit to be located within 30' (10m) of the camera head. Each camera head comes with both CCU as well as distribution amplifiers to send the signal to either the matrix switcher or the image processing computer.

The 16 by 4 matrix switcher allows up to two 360° plus two 180° cameras to be switched between. The output of the matrix switcher can then be routed to the image processing and system control computer which feeds the Panoram PV290 series.

The camera housing is weatherproof and constructed of aluminium with a Pyrex view port. A top cap shields and protects the view port from settling sand, dust or debris. Special heating or air cooling mechanism are available for the housing for more extreme environments. Custom housing which consider special applications are available on a per project basis.

# Sources

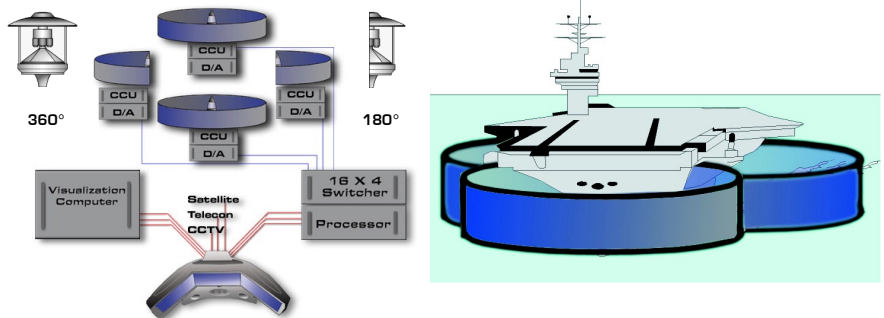
## Panoram FullView™360



FullView™360	
TYPE:	Sources
360° CCD CAMERA	

## Product Specifications

Type	Sources
Category	Video camera
Camera Head	5 CCD camera array
Housing	Weatherproof, aluminum housing with Pyrex view port
Frame Rate	Variable between 15 and 22 fps
Camera Lens	Electronic zoom
Display Resolution	CircleView (180° segment): 440x1600
SplitView	(Dual 180° segments): 320x1600each
ClickView	(360° overview): 160x1600 & 440x1600
Capture Resolution	360° view: 440x4000
180 Degree View	440x2000
Output	3 adjacent RGBS channels
Control	Rack-mountable Camera Control Unit



In this application scenario, various combinations of FullView 360 and 180 cameras are deployed and routed to the system matrix switcher where inputs are selected to be processed into the multi-channel outputs for the display.

The cameras can be selected, electronically panned or zoomed and various screen formats can be selected. Additional non-processed inputs to the Panoram PV290 series displays can include a high resolution, wide screen visualization computer, as well as up to three composite or S-video sources such as satellite television, a VCR or camcorder or even closed circuit video feeds. The full system provides the user with an unprecedented, information rich environment in which

Other FullView Imaging System applications include:

- High risk surveillance & situation monitoring (military, industrial, urban and venue)
- High risk exposure situations (toxic, explosive, unfriendly)
- Remote vehicle piloting
- Sealed vehicle piloting
- Tele-Presence
- Entertainment

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