

# VP194-D7-PA Series

## Dual Channel Thermal/CCD Camera

**Infinova**<sup>®</sup>  
The Integrator's Manufacturer



### • Major Components

- CCD Camera/Lens - Color (Day) Camera and lens for detailed imaging
- Thermal Camera - Thermal (Night) Camera for IR Imaging
- Thermal Camera Lens - Continuous Options
- Pan/Tilt Positioner - High accuracy pan/tilt unit
- Optional Laser Range Finder module
- Optional GPS module

### • Applications

- Port Security
- Airport Perimeters
- Nuclear Power Plants
- Border Surveillance
- Critical Infrastructure
- Oil and Gas Facilities

Infinova VP194-D7-PA series camera is powerful long range, night and day multi-sensor observation systems developed for security applications. It allows long range observation and detection using state of the art thermal imaging and CCD technology. The camera features a color CCD camera for day time operation and high performance cooled and uncooled thermal cameras with several long range lens options for both day and night operation.

The VP194-D7-PA series camera is designed and constructed to withstand the harshest weather and environmental conditions.

Configurations of this series camera are named based on their thermal imager.

## Technical Specifications

### Thermal Camera Specifications

|                                   |   |
|-----------------------------------|---|
| Configuration                     | D700  |
| Thermal Type                      | Cooled  |
| Thermal Engine                    | 17 $\mu$ 640 x 512  |
| Lens Type                         | Continuous Zoom   |
| Focal Length                      | 48.5 - 700mm  |
| Lens F #                          | f/5.5   |
| Video Type                        | (NTSC/PAL); 30Hz  |
| Spectral Band                     | 3 - 5 $\mu$   |
| NETD                              | <25° mK   |
| Horizontal Field of View (wide)   | 11.9°   |
| Horizontal Field of View (narrow) | 0.8°  |
| Digital Zoom                      | 1x, 2x, 4x  |
| Focus Control                     | Motorized, Autofocus on Demand  |
| Control Operation                 | Polarity, NUC, Image Flip, Manual gain/level, Optical & Digital Zoom, Autofocus on Demand |

### CCD Camera Specifications

|                       |                                   |
|-----------------------|-----------------------------------|
| Imager Type           | 1/2" Color CCD                    |
| Effective Pixels      | 768 x 494 (NTSC); 752 x 582 (PAL) |
| Lens Type             | 32x Continuous Zoom               |
| Lens Focal Length     | 15.6 - 500mm                      |
| Imager Horizontal FOV | 22.4° to 0.45°                    |
| S/N ratio             | >50 dB                            |

### Laser Range Finder Specifications (optional)

|                            |              |
|----------------------------|--------------|
| Configuration Availability | D700         |
| Maximum Range              | 20000 meters |
| Minimum Range              | 80 m         |
| Range Accuracy @<1500m     | +/- 5m       |
| Range Accuracy @>1500m     | +/- 5m       |
| Nominal Wavelength         | 1540nm       |
| Laser Safety Rating        | Class 1      |

### Pan / Tilt Positioner Specifications

|                                |              |
|--------------------------------|--------------|
| Position accuracy (resolution) | +/- 1.5 mRad |
| Minimum pan speed              | 0.1°/sec.    |
| Maximum pan speed              | 50°/sec.     |
| Minimum tilt speed             | 0.1°/sec.    |
| Maximum tilt speed             | 50°/sec.     |
| Tilt range                     | +90°/-90°    |

### Power Requirements

|                   |  |
|-------------------|--|
| Power Input       | 24VDC $\pm$ 1%   |
| Power Consumption | 30w typical (static, no heaters); 390w max. (moving, with heaters) |

### Environmental

|                       |                                    |
|-----------------------|------------------------------------|
| Storage Temperature   | -40° F to +160° F (-40°C to +71°C) |
| Operating Temperature | -40° F to +140° F (-40°C to +60°C) |
| Humidity              | +40°C, 93% RH                      |
| Environmental Rating  | IP66                               |

### Communication

|                     |                      |
|---------------------|----------------------|
| Control Connections | RS-422/RS-485 Serial |
| Protocol            | Pelco D              |
| Default Baud Rate   | 9600                 |

## Technical specifications (continued)

### Pan/Tilt Unit

|                     |                  |
|---------------------|------------------|
| Pan/Tilt Speed      | 0-50° per second |
| Pan Range           | 360° continuous  |
| Tilt Range          | -90° to +90°     |
| Pan/Tilt Resolution | +/- 1.5 mRad     |

### Mechanical Parameters

|            |  |
|------------|--|
| Dimensions | Dependent on Configuration (refer to ICDs) |
| Weight     | 65 lbs (29.5 kg)                           |

### Others

|              |  |
|--------------|--|
| Video Format | Dual Channel (Thermal/CCD) - 2 BNC's; RS-170/CCIR, 1.0V p-p, 75ohm |
|--------------|--|

### Certifications and Approvals

|                        |               |
|------------------------|---------------|
| Product Certifications | CE, FCC, IP66 |
|------------------------|---------------|

## Ordering Information

VP194-D700Z17V-PAP00 D700, 15.6-500mm Continuous Zoom (for CCD Camera/Lens), 17μ 640x512 cooled and 48.5-700mm (for Thermal Engine/Lens), PAL, LRF

VP194-D700Z17V-PAP01 D700, 15.6-500mm Continuous Zoom (for CCD Camera/Lens), 17μ 640x512 cooled and 48.5-700mm (for Thermal Engine/Lens), PAL

## Performance

### Legend

D/N Detection (Thermal)- 2 PoT

D/N Recognition (Thermal) - 6 PoT



= Human Subject Size  
1.8m x 0.6m



= Vehicle Subject Size  
2.3m x 2.3m

Detection: 2 lines on target  
Recognition: 6 lines on target

