

# Long-Range Infrared Intelligent Camera Series



Security Solutions by Design




The LTZ Camera Series feature extended-range infra-red stealth illumination using laser technology. Aventura's cutting-edge LTZ cameras provide high-resolution imagery, which can detect, track, identify, classify, and alarm. The patent-pending independent smart-lasertechnology allows users to control the concentration, scatter and direction of the light array, which is also capable of glass penetration. Paired with Aventura's video content analytics and Management platform provide the ultimate in enterprise surveillance.

## Features

- 3 Miles of Daylight and 2 Miles Night Mode
- High-Resolution/HD/MP/WDR Images
- Capable of Glass Penetration
- Stealth Illumination
- High-Speed Pan/Tilt/Zoom
- Rangefinder/GPS/Compass
- On-Board Recording & Analytics
- Satelite/Cellular/Wireless
- Solar and Wind Power
- Rapidly Deployable
- Hybrid Thermal Camera Support
- Atmospheric Interference Reduction

# AVENTURA LASER INTELLIGENT CAMERA SYSTEMS

| MODEL                            | CAM-LTZ-400   | CAM-LTZ-400MP  | CAM-LAS-500  | CAM-LAS-1000   |
|----------------------------------|---|--|--|--|
| PHOTO                            |    |             |             |             |
| <b>CAMERA</b>                    |   |  |  |  |
| Style                            | Mid-Range Laser Night Vision PTZ camera   | Mid-Range Laser Night Vision IP PTZ camera   | Long-Range Laser Night Vision PTZ camera   | Long-Range Laser Night Vision PTZ camera   |
| Signal System                    | NTSC/PAL  | NTSC/PAL   | NTSC/PAL   | NTSC/PAL   |
| Image Sensor                     | 1/4" Exview HAD CCD   | 1/3" Progressive Scan CCD  | 1/2" Infrared Enhancement CCD  | 1/2" Infrared Enhancement CCD  |
| Number of Total Pixels           | Apprx. 440,000  | 1.3 Megapixel  | Apprx. 440,000   | Apprx. 440,000   |
| Horizontal Resolution            | 600 TVL   | 720p   | 600 TVL  | 600 TVL  |
| Lens                             | 3.4mm (wide) to 122.4mm (tele), F1.6 to F4.5  | 3.4mm (wide) to 122.4mm (tele), F1.6 to F4.5   | 10mm (wide) to 200mm (tele)  | 17mm (wide) to 374mm (tele)  |
| Optical Zoom                     | 36x   | 18x  | 20x  | 22x  |
| Digital Zoom                     | 12x (432x with optical zoom)  | 4x (72x with optical zoom)   | -  | -  |
| Field of View                    | 55° (wide end) to 1.7° (tele end)   | 55° (wide end) to 1.7° (tele end)  | 20° (wide end) to 1.0° (tele end)  | 12° (wide end) to 0.8° (tele end)  |
| Minimum Illumination             | 1/60 s mode: 1.4 lx (typical) (F1.6, 50 IRE).<br>1/4 s mode: 0.1 lx (typical) (F1.6, 50 IRE)                                  | 1/60 s mode: 1.4 lx (typical) (F1.6, 50 IRE).<br>1/4 s mode: 0.1 lx (typical) (F1.6, 50 IRE) | 0.02 lux (color), 0.0009 lux black white   | 0.02 lux (color), 0.0009 lux black white   |
| Signal-to-Noise Ratio            | ≥50 dB  | ≥50 dB   | ≥50 dB   | ≥50 dB   |
| Electronic Shutter               | 150 to 1/10,000s, 16 steps  | 150 to 1/10,000s, 16 steps   | 150 to 1/10,000s, 16 steps   | 150 to 1/10,000s, 16 steps   |
| <b>LASER</b>                     |   |  |  |  |
| Effective Distance               | 600m daylight, 400m night mode  |  | 800m daylight, 500m night mode   | 1500m daylight, 1000m night mode   |
| Laser Power                      | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control, 6 W maximum power consumption |  | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control |
| Laser Lens                       | 15x20 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%                                     |  | 22x 50 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%     | 22x 50 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%     |
| Laser Light                      | Power: 3 W, wave length: 810 nm, illumination angle: 1-17°, uniform light, nitrogen-filled                                    |  | Power: 4 W, wave length: 810 nm, illumination angle: 0.5-17°, uniform light, nitrogen-filled   | Power: 6 W, wave length: 810 nm, illumination angle: 0.5-17°, uniform light, nitrogen-filled   |
| <b>MECHANICAL</b>                |   |  |  |  |
| Field-of-Regard                  | 360° Pan; +/- 90° Tilt  |  | 360° Pan; =6°~+90° Tilt  | 360° Pan; =6°~+90° Tilt  |
| Pan/Tilt Rate of Speed           | 1.5~40°/s Pan, 1.2~60°/s Tilt   |  | Speed: 7.5°/s horizontally;<br>6°/s vertically;  | Speed: 7.5°/s horizontally;<br>6°/s vertically;  |
| Position Accuracy                | 1 mrad  |  | 1 mrad   | 1 mrad   |
| <b>SYSTEM FEATURES</b>           |   |  |  |  |
| Remote Control                   | RS-485  |  | RS-485   | RS-485   |
| Automatic Heater                 | Built-In  |  | Built-In   | Built-In   |
| Programmable Search              | Pelco D pan/tilt/zoom controls/128 presets/6 paths  |  | 32 presets/1 path  | 32 presets/1 path  |
| Video Out                        | Composite signal 1.0Vp-p/75ohm  | IP-based   | Composite signal 1.0Vp-p/75ohm   | Composite signal 1.0Vp-p/75ohm   |
| Signal Connector                 | Special navigation outlet   |  | BNC video output   | BNC video output   |
| Interfaces                       | RS-232: Command and control, RS-422 (Optional): Command and control   |  | RS-232: Command and control  | RS-232: Command and control  |
| <b>ENVIRONMENTAL</b>             |   |  |  |  |
| Operation Temperature            | -13°F~131°F (-25°C~55°C)  |  | -13°F~131°F (-25°C~55°C)   | -13°F~131°F (-25°C~55°C)   |
| MIL-Std 810E                     | Rain, sand/dust, shock, vibration   |  | Rain, sand/dust, shock, vibration  | Rain, sand/dust, shock, vibration  |
| Operating Humidity               | Up to 90%   |  | Up to 90%  | Up to 90%  |
| Ingress Protection (IEC 60529)   | IP66 Weatherproof   |  | IP66 Weatherproof  | IP66 Weatherproof  |
| <b>ELECTRICAL</b>                |   |  |  |  |
| Input Voltage                    | 24 VAC  |  | 24 VAC   | 24 VAC   |
| Current Draw                     | 2.5 A   |  | 2.5 A  | 2.5 A  |
| Power Consumption                | 60 Watts  |  | 30~85 Watts  | 30~85 Watts  |
| <b>PHYSICAL</b>                  |   |  |  |  |
| Dimensions (W x H x D)           | 18.1 x 18.9 x 13 in (460 x 480 x 330 mm)  | 18.1 x 18.9 x 13 in (460 x 480 x 330 mm)   | 7.5" x 10.25" x 23.5" (190 x 260 x 600 mm)   | 7.5" x 10.25" x 23.5" (190 x 260 x 600 mm)   |
| Weight                           | 14.3 lb (6.5 kg)  |  | 55 lb (25 kg)  | 55 lb (25 kg)  |
| Housing Material                 | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film                                      | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film     | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film       | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film       |
| Camera Mounting                  | 4-hole pattern, diameter 0.354 in (9 mm)  |  | 4-hole pattern   | 4-hole pattern   |
| <b>REGULATORY &amp; WARRANTY</b> |   |  |  |  |
| Regulatory Type                  | CE, FCC, UL   |  | CE, FCC, UL  | CE, FCC, UL  |
| Warranty                         | 1 Year  |  | 1 Year   | 1 Year   |

| Standard Features       |  |
|-------------------------|--|
| Auto-Tracking           | Track, follow, and record moving objects in the camera's field of view without operator interaction                              |
| Video Analytics         | Automatic object detection, object classification, object count, tripwire, wrong direction monitoring, speed detection and more. |
| IP Encoders             | Converts camera to transmit video across a local area network  |
| Image Stabilization     | Corrects for minor camera movement due to vibration or sway  |
| Built-in Recording      | On-board DVR for portable or remote camera installations   |
| Options and Accessories |  |
| Laser Range-Finder      | Reports distance between camera and observed objects   |
| Gyroscope               | Reports relative direction and angle camera is facing  |
| Compass                 | Reports absolute direction camera is facing  |
| GPS                     | Reports physical location of camera (for use with mobile applications)   |
| Wireless                | Converts camera to transmit video wirelessly   |
| Wind / Solar            | Power camera with wind or solar energy   |
| Tripod                  | Portable mounting options  |
| Carrying Case           | For safe transport of camera   |
| Keyboard Controller     | Pan-Tilt-Zoom controller with 3d joystick  |
| Rapid Deployment Kit    | Portable command and control for Aventura Intelligent Camera Systems   |

# AVENTURA LASER INTELLIGENT CAMERA SYSTEMS

| MODEL                                 | CAM-LAS-1500   | CAM-LAS-1500MP   | CAM-LAS-2000   | CAM-LAS-3000   | CAM-LAS-3000MP   |
|---------------------------------------|--|--|--|--|--|
| PHOTO                                 |               |               |             |             |             |
| <b>CAMERA</b>                         |  |  |  |  |  |
| Style                                 | Long-Range Laser Night Vision PTZ camera   | Long-Range Laser Night Vision PTZ camera   | Long-Range Laser Night Vision PTZ camera   | Long-Range Laser Night Vision PTZ camera   | Long-Range Laser Night Vision PTZ camera   |
| Signal System                         | NTSC/PAL   | NTSC/PAL   | NTSC/PAL   | NTSC/PAL   | NTSC/PAL   |
| Image Sensor                          | 1/2" Infrared Enhancement CCD  | 1/2" Infrared Enhancement CCD  | 1/2" Infrared Enhancement CCD  | 1/2" Infrared Enhancement CCD  | 1/2" Infrared Enhancement CCD  |
| Number of Total Pixels                | Apprx. 440,000   | 1.3 Megapixel  | Apprx. 440,000   | Apprx. 440,000   | 2 Megapixel  |
| Horizontal Resolution                 | 600 TVL  | 720p   | 600 TVL  | 600 TVL  | 1080p  |
| Lens                                  | 23mm (wide) to 500mm (tele)  | 23mm (wide) to 500mm (tele)  | 30mm (wide) to 750mm (tele)  | 12.5mm to 1500mm (750 w/ x2 extender)  | 16.7mm to 2000mm (1000 w/ x2 extender)   |
| Optical Zoom                          | 20x  | 20x  | 25x  | 60x  | 60x  |
| Field of View                         | 8.9° (wide end) to 0.4° (tele end)   | 8.9° (wide end) to 0.4° (tele end)   | 6.9° (wide end) to 0.2° (tele end)   | 16° (wide end) to 0.1° (tele end)  | 12° (wide end) to 0.1° (tele end)  |
| Minimum Illumination                  | 0.02 lux (color), 0.0009 lux black white   | 0.02 lux (color), 0.0009 lux black white   | 0.02 lux (color), 0.0009 lux black white   | 0.02 lux (color), 0.0009 lux black white   | 0.02 lux (color), 0.0009 lux black white   |
| Signal-to-Noise Ratio                 | ≥50 dB   | ≥50 dB   | ≥50 dB   | ≥50 dB   | ≥50 dB   |
| Electronic Shutter                    | 1/50 to 1/10,000s, 16 steps  | 1/50 to 1/10,000s, 16 steps  | 1/50 to 1/10,000s, 16 steps  | 1/50 to 1/10,000s, 16 steps  | 1/50 to 1/10,000s, 16 steps  |
| Wide Dynamic Range                    | On/Off   | On/Off   | On/Off   | On/Off   | On/Off   |
| Backlight Compensation                | On/Off   | On/Off   | On/Off   | On/Off   | On/Off   |
| <b>LASER</b>                          |  |  |  |  |  |
| Effective Distance                    | 2500m daylight, 1500m night mode   | 2500m daylight, 1500m night mode   | 3500m daylight, 2000m night mode   | 5000m daylight, 3000m night mode   | 5000m daylight, 3000m night mode   |
| Laser Power                           | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control | Dual circuit drive, regulated voltage and current, power up 1s, photosensitive outside control |
| Laser Lens                            | 25x 50 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%     | 25x 50 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%     | 25x 50 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%     | 60x 100 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%    | 60x 100 mm laser telephoto lens f2.0, multilayer plating near infrared, laser coupling >95%    |
| Laser Light                           | Power: 10 W, wave length: 810 nm, illumination angle: 0.3-17°, uniform light, nitrogen-filled  | Power: 10 W, wave length: 810 nm, illumination angle: 0.3-17°, uniform light, nitrogen-filled  | Power: 10 W, wave length: 810 nm, illumination angle: 0.3-17°, uniform light, nitrogen-filled  | Power: 15 W, wave length: 810 nm, illumination angle: 0.3-17°, uniform light, nitrogen-filled  | Power: 15 W, wave length: 810 nm, illumination angle: 0.3-17°, uniform light, nitrogen-filled  |
| <b>MECHANICAL</b>                     |  |  |  |  |  |
| Field-of-Regard                       | 360° Pan; ±6°~±90° Tilt  |  |  |  |  |
| Pan/Tilt Rate of Speed                | Speed: 7.5°/s horizontally; 6°/s vertically;   |  |  |  |  |
| Position Accuracy                     | 1 mrad   |  |  |  |  |
| <b>SYSTEM FEATURES</b>                |  |  |  |  |  |
| Remote Control                        | RS-485   |  |  |  |  |
| Automatic Heater                      | Built-In   |  |  |  |  |
| Programmable Search                   | 32 presets/1 path  |  |  |  |  |
| Video Out                             | Composite signal 1.0Vp-p/75ohm   | IP-based   | Composite signal 1.0Vp-p/75ohm   | Composite signal 1.0Vp-p/75ohm   | IP-based   |
| Signal Connector                      | BNC video output   | -  | BNC video output   | BNC video output   | -  |
| Interfaces                            | TCP/IP: Optional, RS-232: Command and control  |  |  |  |  |
| <b>ENVIRONMENTAL</b>                  |  |  |  |  |  |
| Operation Temperature                 | -13°F~131°F (-25°C~55°C)   | -13°F~131°F (-25°C~55°C)   | -13°F~131°F (-25°C~55°C)   | -13°F~131°F (-25°C~55°C)   | -13°F~131°F (-25°C~55°C)   |
| MIL-Std 810E                          | Rain, sand/dust, shock, vibration  | Rain, sand/dust, shock, vibration  | Rain, sand/dust, shock, vibration  | Rain, sand/dust, shock, vibration  | Rain, sand/dust, shock, vibration  |
| Operating Humidity                    | Up to 90%  | Up to 90%  | Up to 90%  | Up to 90%  | Up to 90%  |
| Ingress Protection Rating (IEC 60529) | IP66 Weatherproof  | IP66 Weatherproof  | IP66 Weatherproof  | IP66 Weatherproof  | IP66 Weatherproof  |
| <b>ELECTRICAL</b>                     |  |  |  |  |  |
| Input Voltage                         | 24 VAC   | 24 VAC   | 24 VAC   | 24 VAC   | 24 VAC   |
| Current Draw                          | 2.5 A  | 2.5 A  | 2.5 A  | 2.5 A  | 2.5 A  |
| Power Consumption                     | 60~150 Watts   | 60~150 Watts   | 60~150 Watts   | 60~170 Watts   | 60~170 Watts   |
| <b>PHYSICAL</b>                       |  |  |  |  |  |
| Dimensions (W x H x D)                | 7.8" x 13.8" x 27.5" (200 x 350 x 700 mm)  | 7.8" x 13.8" x 27.5" (200 x 350 x 700 mm)  | 7.8" x 13.8" x 27.5" (200 x 350 x 700 mm)  | 7.8" x 13.8" x 27.5" (200 x 350 x 700 mm)  | 7.8" x 13.8" x 27.5" (200 x 350 x 700 mm)  |
| Weight                                | 88 lb (40 kg)  | 88 lb (40 kg)  | 88 lb (40 kg)  | 88 lb (40 kg)  | 88 lb (40 kg)  |
| Housing Material                      | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film       | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film       | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film       | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film       | Shell: Precision aluminum alloy, Glass: optical microlite, Coating: anti-reflective film       |
| Camera Mounting                       | 4-hole pattern   | 4-hole pattern   | 4-hole pattern   | 4-hole pattern   | 4-hole pattern   |
| <b>REGULATORY &amp; WARRANTY</b>      |  |  |  |  |  |
| Regulatory Type                       | CE, FCC, UL  | CE, FCC, UL  | CE, FCC, UL  | CE, FCC, UL  | CE, FCC, UL  |
| Warranty                              | 1 Year   | 1 Year   | 1 Year   | 1 Year   | 1 Year   |