

High Altitude EO/IR Imaging System



Sonoma 494™
High Altitude

Sonoma 400 Series Stabilized Imaging Systems

Sonoma's 400 Series products are ultra high performance EO/IR stabilized imaging systems designed for long range surveillance & reconnaissance on airborne, shipborne, and ground-based platforms. Sonoma's 400 Series combines precision stabilization technology, X-Mast™, and long focal length, shared aperture Hydra™ lenses, ensuring mission success through increased stand-off and excellent image clarity.

Sonoma 494 Benefits

- **Longer stand-off**
Assess and mitigate threats at longer distances
- **Superior reliability**
Cost-effective solutions
- **Fuel savings**
Sensors are placed low in the turret resulting in reduced air drag

Airborne Applications

- Precision geo-pointing
- High Value Target detection (HVT)
- Hull Identification Number recognition (HIN)
- Positive combat ID
- Self-protection
- Tactical situational awareness
- Littoral and broad area maritime surveillance
- Combat support
- Covert observation
- Reconnaissance
- Precision targeting



communications

Sonoma EO

SPECIFICATIONS

Features

- Unmatched stabilization maximizes imaging performance
- Shared aperture Hydra-11™, 11-inch telescope in both visible & IR saves space and weight
- Integral laser range finder
- Ruggedized gimbal electronics box (GIB) offers additional image processing functionality
- All digital design provides progressive scan cameras to maximize stored resolution

PHYSICAL CHARACTERISTICS

Active gyro-stabilization	5 - axis
Platform range of motion	Elevation: +30° to -120°; Azimuth: 360° continuous
Platform angular velocity	1 radian/sec
Platform angular acceleration	>4 radians/sec ²
Platform stability	2 μ rad RMS
Outside diameter	24.8 inches
Weight (turret with sensors)	235 lbs
Weight (GIB)	35 lbs

INFRARED

Lens type	Sonoma Hydra-11™
Primary aperture	11 inches
Sensor	3-5 μ m InSb detector
NFOV (mechanical)	1.1° (horizontal)
MFOV (mechanical)	6.5° (horizontal)
WFOV (mechanical)	28.7° (horizontal)
Resolution	1024 x 1024 pixels
Signal format	Analog and digital outputs available

VISIBLE SPOTTER IMAGER

Lens type	Sonoma Hydra-11™
Primary aperture	11 inches
Sensor	3-chip high-resolution visible camera
NFOV aperture diameter	10.82 in (275 mm)
Focal length	4800 to 1400 mm
Signal format	Analog and digital outputs available

LOOK AROUND ZOOM (LAZ)

Sensor	3-chip high-resolution visible camera
NFOV aperture diameter	2.7 inches
Fields of view	0.53° to 14.4° horizontal
Signal format	Analog and digital outputs available

EYE SAFE LASER RANGEFINDER

Rangefinder type	Erbium-glass
Range accuracy	< ± 5 m (1 sigma)
Max range	20 Km



Cleared by DOD/OFOISR for public release under 05-S-1971 on August 31, 2005.
Specifications subject to change without notice. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders. 2/06

