

L-3 Sonoma EO

MODEL 12 DS/TS 200

LONG-RANGE IMAGING SYSTEM

SONOMA DS/TS 200 LONG-RANGE IMAGING SYSTEMS

Sonoma's Model 12 DS/TS 200 is designed to meet the needs of law enforcement, paramilitary and surveillance applications on both rotary and fixed wing aircraft.

Through superior gyro-stabilization and long-range infrared optics, the Model 12 DS/TS 200 provides high-performance detection, recognition, identification and tracking of persons and vehicles over long distances in daylight, in total darkness, and in less-than-ideal weather conditions.

The small size and light weight of the Model 12 DS/TS 200 permit this system to be installed on a wide range of rotary and fixed-wing aircraft where compact, high-performance systems are needed. Through the SmartLink Interface Unit (SIU) the Model 12 DS/TS 200 system is compatible with other mission equipment such as microwave downlook equipment, searchlights, auto-trackers, moving maps, GPS, radar and intercom systems.

KEY FEATURES

- Unsurpassed image quality
- High-performance 4-axis gyro-stabilization
- Small, compact and lightweight gimbal
- 3-5 μ m InSb FLIR thermal imager and 3 FOV optics
- Daylight color camera with 20x zoom lens
- Optional laser illuminator
- Plug and Play SmartLink interface
- Seamless integration with WESCAM microwave downlink equipment
- Reliable and easy to use



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WHEN THE MISSION MATTERS

SENSOR #1 - FLIR THERMAL IMAGER

Spectral Range	3-5 μ m InSb staring array
Type	Midwave
Detector	InSb staring focal plane array
Resolution	256 x 256
Cooling	Stirling cycle cooler
Fields of View	Wide 25.0°(H) x 25.0°(V) @ 17 m Mid 7.3°(H) x 7.3°(V) @ 60 mm Narrow 2.2°(H) x 2.2°(V) @ 200 mm
FOV Switching Time	<0.125 second

SENSOR #2 - COLOR DAYLIGHT CCD CAMERA

Camera Type	1CCD
Format	NTSC or PAL
Resolution	470 TV lines/460 TV lines (PAL)
Minimum Illumination	0.2 lux @ f1.6
Zoom Lens Type	20x continuous zoom with 2x extender
Focal Lengths	11.2 mm to 224 mm
Lens FOV (H xV)	Wide 22.2°(H) x 16.7°(V) @ 11.2 mm Narrow 1.1°(H) x 0.8°(V) @ 224 mm

SENSOR #3 - (OPTIONAL) LASER ILLUMINATOR²

Laser Type	Diode
Wavelength	860 nm
Modes	Continuous or pulsed
Range (typical)	10 km
Power Output	1 W

TURRET PHYSICAL CHARACTERISTICS

Gimbal	20.9 kg (46 lbs) 30.5 cm (12 in) D x 37.1 cm (14.6 in) H
SmartLink Interface Unit (SIU) - optional	4.1 kg (9 lbs) 33 cm (13 in) D x 25 cm (10 in) W x 10 cm (4 in) H
Hand Controller	0.7 kg (1.6 lbs) 20 cm (8 in) x 10 cm (4 in) x 8 cm (3 in)
Cables Standard Cable Kit	Control cable 7.6 m (25 ft), hand controller 1.8 m (6 ft) and power cable 4.6 m (15 ft)
Cooling	Stirling cycle cooler
Power (nominal)	28 Vdc, 10 amps (with no ancillary equipment operating)
Active Gyro-Stabilization	2-axis inner (pitch/yaw) 2-axis outer (azimuth/elevation)
Vibration Isolation	6-axis passive isolation (x/y/z/pitch/roll/yaw)
Line-of-Sight Jitter	<35 μ rads rms
AZ/EL Slew Rate	Max. >60°/sec.
AZ Range	Continuous 360°
EL Range	+75° to -90°

OPTIONS AVAILABLE

SmartLink SIU-800 with Upgrades	RS-232/422; ARINC 429; GPS; video enhancer; microwave downlink; MIL-STD-1553; moving map; Nightsun slave and more.
Laser Illuminator	
Video Equipment	CRT or LCD monitors; 8mm/VHS/SVHS/DV/Betacam/solid-state video recorders
Microwave Equipment	OmniPod, Skypod V, Skypod LC air-to-ground microwave system.
Installation	FAA-certified installation brackets



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L-3. Headquartered in New York City, L-3 Communications employs over 64,000 people worldwide and is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems. The company reported 2007 sales of \$14 billion.