

Ultra 8500 FW™

APPLICATIONS

- Patrol
- Surveillance
- Reconnaissance
- Search & Rescue
- Long-Duration Observation

COMPACT LAW ENFORCEMENT STABILIZED THERMAL IMAGER

The new Ultra 8500FW is a lightweight, fixed wing airborne law enforcement thermal imaging system with triple-payload capability. Designed for fixed-wing search and surveillance, Ultra 8500FW is ideal for lightweight aircraft or airframes requiring reduced drag.

MULTI-SENSING = MULTI TASKING

The Ultra 8500FW's triple payload capability features a new high resolution, digital infrared video processor (HRVP) which delivers stunning infrared imagery, even in extreme climates.

The best-in-class autotracker keeps the system on target, an important feature when working from high altitudes in full zoom. The system's optional Class IIIb long-range laser illuminator pinpoints ground targets, enhancing ground force coordination when used with night-vision goggles (NVGs).

COMPACT, LIGHT AND STABLE

At 9 inches and 29 lbs, the fully sealed Ultra 8500FW is the most compact, lightweight turret available. Its small size enables increased loads, improved fuel savings for longer flights, lower drag and excellent ground clearance. Advanced stabilization helps Ultra 8500FW deliver clear, detailed imagery.

ENHANCED OPTICAL PERFORMANCE

With a 450-mm infrared (IR) focal length, Ultra 8500FW delivers

extraordinary range performance for its size. Continuous zoom permits the view to be set as the situation requires. For fast situational awareness, the cameras can be set to 3 preset field of views.

The 0.2 lux low-light TV camera with 18x optical and digital zoom delivers outstanding daylight imagery and enhances dusk/dawn operations. Lock the zoom position of the infrared (IR) and TV sensors to automatically match the FOVs and seamlessly switch between the two cameras. Also included is "focus memory" which virtually eliminates the need for IR focus "touch-ups" between zooms settings.

COMFORTABLE ERGONOMIC LAPTOP CONTROLLER

Ultra 8500FW includes a new laptop control unit configurable for right-or left-handed use. With large, easy-to-operate knobs and NVG-compatible backlighting, this comfortable, rugged controller is ideal for long surveillance missions.

Recognizable on-screen icons increase situational awareness and promote faster, safer in-flight decision making. Ultra 8500FW supports moving maps, searchlights, and downlinks, and displays approved GPS data with an optional input kit.

BACKED BY THE FLIR NAME

FLIR is the world's leading supplier of advanced infrared imaging systems for military, government and law enforcement applications. FLIR's global network of service and support centers assures customers the experience, resources, commitment they demand.



TV Camera WFOV



TV Camera NFOV



Auto Tracker



Sharp IR Imagery



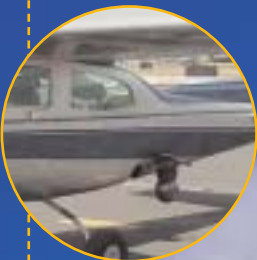
Laser Illuminator



Color On Screen Graphics



Laptop Control Unit



SYSTEM SPECIFICATIONS

Turret Size	9.0" dia. x 13.5" h (22.9 x 34.3 cm)
Turret Weight	29 lbs (13 kg)
Field of Regard	360° continuous in azimuth and elevation
Slew Rates	.02° to 65°/second
Stabilization	Fiber-optic gyro-stabilization

THERMAL IMAGER

Sensor	320 x 240 InSb focal plane array 3-5 μ m
Fields of View	21.7° x 16.9° wide, *4.4° x 3.3° medium *1.22° x 0.915° narrow Continuous zoom or 3 preset (wide, medium, narrow) *With 1.8x optical extender on
Calibration	Internal Nonuniformity Correction (NUC) Variable scene integration

DAYLIGHT IMAGER

Pixel Arrangement (HxV)	768 x 494 (NTSC) 752 x 582 (PAL)
Resolution	+470 television lines (NTSC) +460 television lines (PAL)
Telescope	18x Optical, plus digital zoom
Fields of View (HxV)	Narrow: 1.22° x 0.915° Wide: 48° x 32° Continuous or matched to 3 FOV IR settings
CCD Sensitivity	0.2 lux @ f/1.4 w/out filter, .7 lux @ f/1.4 w/filter

ELECTRONIC CONTROL UNIT

Size	10.6" x 9.9" x 5.9" (27 x 25 x 15 cm)
Weight	15.8 lbs (7 kg)
Power Requirements	18 VDC to 32 VDC input
Max Current Requirements	15 amps
Communications Interface	RS-232/422
Video Output	RS-170, NTSC, PAL

SYSTEM CONTROLLER

Standard Laptop Control Unit: (NVIS Compatible standard) Includes reversible control inserts for left handed users: 9 lbs. Includes laser fire switch for future upgrades.

Optional Simplified Hand Control Unit: (NVIS Compatible standard) 1.8 lbs. Includes mounting hook, and will adapt to searchlight sidecars. Includes laser fire switch for future upgrades.

OPTIONAL LASER ILLUMINATOR POINTER

Type	Class IIIb CW diode laser
Bandwidth	0.830 μ m
Beam Divergence	0.2 mrad, 2-1 aspect ratio
Output Power	30 mw

ADDITIONAL OPTIONS

Moving Maps, Video-Down Links

ARINC interface, RS-232 serial GPS interface, radar interface, SLASS interface, PIP monitor

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