MULTI-MISSION EO/IR SURVEILLANCE SYSTEM

EPSILON 140LC







EPSILON 140LC MAIN FEATURES:



EXCEPTIONAL IMAGING PERFORMANCE

720p HD video at 30 fps with full processing



IMPROVED LWIR PERFORMANCE

<30mK sensitivity sensor with 25mm F1.0 IR lens



NON-ITAR

For maximum exportability



ENVIRONMENTALLY PROTECTED

Fully sealed, dry gas filled structure



DIRECT DRIVE STABILIZATION

Ruggedized brushless motors with specialized bearings



INTEGRATED HIGH PRECISION GPS/INS

Providing platform location, target location and slant range



METADATA

MISB compliant video stream with KLV metadata



RELIABLE OPERATION

Mature design proven in demanding environments



ARTILLERY FIRE ADJUSTMENT

Integrated software for artillery fire correction



SUPER RUGGED DESIGN

Advanced Magnesium structure (no 3D printed parts used)



MOST POWERFUL IN CLASS ONBOARD PROCESSOR

With Onboard Target tracking, Scene steering

EPSILON 140LC

THERMAL IMAGER		
Sensor type	640 x 512, LWIR (uncooled)	
Wavelength	7.5 - 13.5 μm	
Sensitivity	<30mK and <60 mK versions	
FOVs Zoom ratio	25° (h) x 18,9° (v)	
	4x digital	
Lens	25 mm, F1.0	
COLOR ZOOM CAMERA		

COLOR ZOOM CAMERA		
Sensor type	Global shutter CMOS	
Resolution	1280×720px	
FOVs	62.9° - 2.2°(h) x 37.9° - 1.3° (v)	
Optical zoom	45x (for SD video quality)	
Digital zoom	Λv	

IMU and GPS Fully integrated, tightly coupled for Geo Pointing and real time Target GEO location Accuracy 0.3° RMS heading / 0.1° RMS roll/pitch Navigation data computing frequency System support Additional Outloop More Man Software	INTERNAL NAVIGATION SYSTEM		
Navigation data computing frequency 400Hz System support MGRS and decimal degree system support	IMU and GPS		
System support MGRS and decimal degree system support	Accuracy	0.3° RMS heading / 0.1° RMS roll/pitch	
, , , , , ,	Navigation data computing frequency	400Hz	
Additional Options Moving Man Coftware	System support	MGRS and decimal degree system support	
Additional Options Moving Map Software	Additional Options	Moving Map Software	

SYSTEM PERFORMANCE		
System type	2 axis mechanical stabilization / 3 axis electronical stabilization	
Az. Coverage	360°	
El. Coverage	-80° to +10°	
Encoder resolution	0.01°	
Stabilization bandwidth	100 Hz	
Gyro noise	6 uRad	
Stabilization	<100 µrad RMS	
Motors	Direct drive	

SYSTEM INTERFACES	
Analog video	NTSC/PAL
Digital Video	Ethernet
Control	RS232 / Ethernet
Interface connector	15 pin high density Dsub IP67
GPS antenna connector	ΔM2

	ENVIRONMENTAL
Rating	IP64 [sealed and dry gas filled structure]
Operating temperature	-40°C to 55°C

POWER REQUIREMENTS	
Voltage	22-26 VDC
Consumption	17W typical / 75W peak

DIMENSIONS, WEIGHT & MOUNTING		
Size	140 mm x 195 mm (5.5" x 7.7")	
Weight	1.27 kg (2.80 lbs)	
Mounting	Nose or belly mount compatible	
OTHER FEATURES		
Automatic object tracking (onboard)	Adjustable bitrate and resolution	
Onboard video recording (32Gb)	DHCP or static IP addressing	
 H.264 Internal Encoder Picture-in-Picture dual video Field upgradable firmware 	Unicast and Multicast video stream	
	Field upgradable firmware	
Electronic video enhancement	Sky Up functionality	
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IR SENSOR DRI ACCORDING TO JOHNSONS CRITERIA		
	Human target [1,7x0,5m]	NATO target [2,3x2,3m]
Detection	833m	1127m
Recognition	260m	352m
Identification	156m	211m

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IMPROVED LWIR PERFORMANCE



MOVING MAP SOFTWARE





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