night navigator³



Best. Vision. Ever.

Three Cameras, Three Spectrums, One System.

The Night Navigator[™] 3 provides the best available images, night and day. It combines a High-Resolution Thermal Imager, Gated Image-Intensified HD Night Vision Camera, and a High-Definition Day Camera in a gyro stabilized gimbal with 360° continuous azimuth rotation.

The Night Navigator 3 comes with an optical dual field of view Thermal Imager of either 20°/6.8° or 13.8°/4.6°.

Applications:

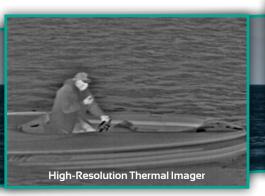
- Night and day navigation
- Obstacle detection: small craft, debris, ice/bergy bits, etc
- Early detection of potential security threats
- SAR support
- High-Definition Day Camera entertainment value throughout vessel
- Whale and whale spout detection

Main Features

- High-Resolution Uncooled Thermal Imager
 - 640x480 pixel resolution
 - Dual field of view: 20°/6.8° or 13.8°/4.6° options
- Gated Image-Intensified HD Night Vision Camera
 - 0.00001 lux sensitivity
 - 20° field of view
- High-Definition Day Camera
 - 1080i or 720p selectable
 - 10x optical zoom, 12x digital zoom
- 3-Axis Gyro Stabilization
 - Resolved through 2-axis positioning
- Hardware & IP-Based Controls
 - Panel mount controller
 - Touchscreen control via iNightNav App for iPod/iPad



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High-Resolution Uncooled Thermal Imager

	Field of View Option:	
	20°/6.8°	13.8°/4.6°
Detector Type:	ASi Microbolometer	-
Pixel Resolution:	640 x 480	-
Detector Pitch:	25 μm	17 µm
NETD:	≤ 70 mK (a) f1.0	-
Wide Field of View:	20°	13.8°
Narrow Field of View:	6.8°	4.6°
Vibration:	MIL-STD 810E	-
EMI/EMC:	MIL-STD-461D	-
Optical Zoom:	3x	-
Digital Zoom (wide & narrow FoV):	12x continuous	-
Focus Control:	Auto & Manual	-
Spectral Range:	8 - 14 µm	-
Frame Rate:	25-30 Hz	-
Image Processing:	Enhanced/Analog	
Window coating:	N-C Hard Diamond-like	
MTBF:	10,000 hours	

Gated Image-Intensified HD Night Vision

Sensor Type:	Super Gen II+
Spectral Response:	450 - 950 nm
Luminous Sensitivity:	0.000001 lux
Field of View:	20°
Focus Control:	Remote motorized
Iris Control:	Remote motorized
Tube Protection:	Shutter, iris, gate
Window Coating:	Hydrophobic

High-Definition Color Day Camera

	,
Sensor Type:	CMOS
HD & SD Formats:	1080i/720p HD selectable
Field of View:	50° to 5.4°
Optical/Digital Zoom:	10x/12x continuous
Focus:	Auto & Manual
Window Coating:	Hydrophobic

Video Display and Signal

NTSC (RS170) or PAL (CCIR)	format: M	ust be specified at time of order
On-Screen Information Disp	,	osition, Heading, Speed over ound, Reticle, & Camera Functions

Payload Platform Specifications

Configuration:	Dome up
Width:	41.1 cm (16.2 in)
Height (above mounting surface):	42.9 cm (16.9 in)
Weight:	37 kg (81.6 lbs)
Tilt Range:	-30° to +90°
Pan Range:	360° Continuous
Operating Temperature Range:	-20°C to +50°C
Voltage:	20 to 34VDC
Maximum Angular Velocity:	40°/second
3-Axis Gyro stabilization:	Resolved through 2-axis positioning
Line of Sight Stabilization:	1°
Stabilization Accuracy:	13 mrad
Ingress Protection	IP65
Weatherized Pan & Tilt Unit Sealed for the Marine Environment	

Panel-Mount Controller

Radar Cursor & ARPA Target Slaving:	Protocol: NMEA0183 (RS422/RS232)
Integrated graphical information display:	Position, Heading & Camera Functions
Dimensions (W x H):	16.7 x 23.6 cm (6.6 x 9.3 in)
TCP/IP control with Night Navigator or Customer Supplied Graphical User Interface (GUI)	

Options

IP Network Controllable	Network control of Night Navigator
iNightNav App	iPod/iPad control of Night Navigator









