

SENSPEX

Applied Science & Technology

SPX-800 Long-Range Multi-Sensor System

The newly designed SPX-800 is a Senspex integrated electro-optical infrared (EO-IR) multi-sensor camera system featuring a state-of-the-art high-definition visible camera and an extreme long-range thermal camera on a high-speed pan/tilt positioning unit. In good conditions, the camera system enables man-sized target detection at ranges in excess of 25 km. The 785mm continuous zoom infrared camera integrates advanced cooled photodetector technology with up to a 1280 x 1024, 10 μ m pitch focal plane array and operates in the 3-5 μ m MWIR spectral region. SPX series EO-IR systems feature Senspex's NVIDIA-based GILA embedded graphics processing with intelligent analytical and target detection AI software options.



FEATURES

System

- IP Network Video & Control
- Built-in Health and Status Monitoring
- Multiple Command Protocol
- Embedded Video Processing Built for AI

Thermal Imaging Camera:

- F/4.0 Continuous Zoom Lens
- 12.5° to 0.7° Horizontal Field of View
- 18X Optical, 8X Digital Zoom
- Cryo-cooled MWIR Detector
- HD: 1280 x 1024 px FPA
- Autofocus
- Onboard Digital Image Enhancement
- Electronic Image Stabilization
- Sealed and Backfilled IP67 Housing

Visible Spectrum Camera:

- 30x Optical, 12x Digital Zoom
- Full HD1080p 2 MPx Image Sensor
- Wide Dynamic Range (WDR)
- Defog Function
- Electronic Image Stabilization
- Day/Night ICR
- 0.002 Lux Minimum Illumination

Integrated Precision Positioning System:

- High Speed Direct Drive
- 16-bit Position Sensing
- Fastest 240°/sec Motor Speeds
- 0.1° accuracy
- 0.02° repeatability
- Hundreds of On-Board Presets
- Supports External Preset Data

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System Specifications

<u>Video Formats</u>	Analog: NTSC/PAL, CVBS, Differential UTP; Digital IP: HEVC/H.265, H.264, MJPEG, RTP, RTSP, ONVIF
<u>Control Interface</u>	RS422/485, HTTP/TCP/IP, ONVIF Pelco D, TASS, Subsystem pass-through
<u>Presets</u>	Hundreds of onboard presets, supports external preset data transfer
<u>Housing</u>	IP67 rated, sealed & dry nitrogen backfilled, lens defrosters
<u>Environmental</u>	MIL-STD-810H
<u>Operating Temp:</u>	-32°C to 55°C
<u>Storage Temp:</u>	-40°C to 70°C
<u>Power</u>	18-26 VDC / 200W Max
<u>Weight</u>	~102 lbs. (46 kg)
<u>Dimensions</u>	25.5" (L) x 23" (W) x 22" (H)
<u>Part Number</u>	SD Thermal Imager: 950058-10 HD Thermal Imager: 950062-10

Vector 50-Pan & Tilt Positioner

<u>Drive</u>	Direct Drive Servo
<u>Pan Range</u>	360° Continuous
<u>Pan Speed</u>	<0.01°/sec to >300°/sec
<u>Tilt Range</u>	±60°
<u>Tilt Speed</u>	<0.01°/sec to >300°/sec
<u>Precision</u>	16 bit encoding
<u>Accuracy</u>	±0.1°
<u>Repeatability</u>	±0.02°

Thermal Camera Characteristics

<u>Focal Plane Array</u>	Cryo-cooled MWIR SSL High Operating Temperature
<u>Spectral Band</u>	3 µm to 5 µm
<u>Resolution</u>	SD Option: 640 x 512 px HD Option: 1280 x 1024 px
<u>Cooler Lifetime</u>	20,000 Operating Hours* *Typical test result, actual life depends on operating pattern and conditions
<u>Warranty</u>	2 years
<u>Lens Type</u>	F/4 Diamond-like coated Continuous Zoom
<u>Field of View</u>	SD Option: 12.5° x 9.4° Wide 0.7° x 0.5° Narrow HD Option: 16.6° x 13.3° Wide 0.93° x 0.74° Narrow
<u>Lens Features</u>	Auto and Manual Focus, Auto Gain, Edge Enhancement, White/Black Hot

Visible Camera Characteristics

<u>Sensor</u>	1/3" HD CMOS
<u>Resolution</u>	1920x1080 px, 2MPx
<u>Zoom</u>	Continuous Zoom 30X Optical, 12X Digital
<u>Field of View</u>	63.7° wide to 2.3° narrow (Optical HFOV)
<u>Signal to Noise</u>	>50dB
<u>Min Illumination</u>	0.013 Lux ICR-On 30 FPS 0.002 Lux ICR-On 1/4 FPS
<u>Features:</u>	Day Night ICR, Wide Dynamic Range, Defog, Noise Reduction, Image Stabilization, Motion Detection

Manufacturer reserves the right to change specifications to reflect latest
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