



ST-U1390-PAN

**13MP, Wide Angle, Thermal
Panoramic Camera**

*Designed for hot, humid and dusty
climate*

Product description

The military grade SensorTec 90° Thermal panorama provides continuous 90° monitoring over the surroundings.

The rugged camera housing contains a multi-sensor thermal panorama camera of 13MP thermal resolution. The thermal panoramic camera efficiently operates under several weather conditions. It produces clear imagery during the night and even in challenging environmental conditions such as smoke, dust, haze, and fog. The advanced SensorTec stitching and displaying technology allows the operators to pan and zoom in on the panoramic images as if they were taken with a single sensor camera.

The rugged IP67 rated camera housing is designed to withstand vibration in accordance with MIL STD 810G. It ensures to take high-performance images, even in extreme environmental conditions, in temperatures ranging from -40°C to +70°C.

Features:

- 90° horizontal Field of View
- Wide temperature range, -40 °C to +70 °C
- Thermal image resolution 13MP
- Ethernet interface
- Image contrast Enhancement
- Integrated adjustable mounting bracket
- 24 V operating voltage (18 - 36 V range)

AUTOMATIC DETECTION AND TRACKING BY COMPUTER

Target	distance
Human	3000 m
Light vehicle	5900 m
Heavy vehicle	8860 m
Airplane	35400 m

GENERAL INFORMATION

Description	90 degrees, 13MP Thermal Panorama
Application	Situational Awareness System
Field of view	Horizontal field of view: 90°
Configuration	Configuration software via Ethernet
Start-up time	Less than 10 seconds
Ethernet connection	10 Gbit
Network security	1500 bit public-key RSA; User authentication

THERMAL SENSOR

Image sensor	Uncooled VOx or a-Si microbolometer
Sensor Resolution	10 sensors x 1280 (H) x 1024 (V) / 25 FPS
Detector pitch	12 µm
Spectral response	8 -14 µm
Thermal sensitivity	NETD < 50 mK
Non-conformity correction	1 point with shutter or through lens

THERMAL IMAGE PROCESSING

Automatic Gain and level	User defined, persistent through power cycles
Digital zoom & pan	Region of interest; 1x – 4x
Picture inversion	Positive / Negative
Image Mirroring	Horizontal and Vertical image flip
Image control	Image contrast enhancement Black & White polarity Color tables
Symbology	256 grayscale and 256 colors

ENVIRONMENTAL SPECIFICATION

Operating voltage	18 – 36 VDC (Galvanic separation from housing)
Over voltage protection	MIL-STD-1275-D
Power consumption	Max. 140 W
Operating temperature	-40°C to +70°C (solar load)
Storage temperature	-40°C to +70°C
Humidity	up to 100% RH (condensing)
Operational Altitude	10,000 m
Protection classification	IP67
Vibration	Tracked vehicle MIL-STD 810G , method 514.6 – 6.25 Grms
Shock	3 shocks in each direction, 30 G @ 11 ms
EMC	MIL-STD 461F RS103 and RE102
MTBF	30,000 hours (MIL-HDBK-217-F) Ground mobile

MECHANICAL SPECIFICATION

Dimensions (W x H x L)	318 x 318 x 398 mm (With bracket)
Weight	Max. 8 kg
Material of the housing	Aluminum with corrosion protection coating
Camera window	Hardened coating
Connector	Round connector, aluminum (MIL-DTL-26482 series 1)

ALL PICTURES SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY. ACTUAL PRODUCT MAY VARY DUE TO PRODUCT ENHANCEMENT



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