

TS724 DualVision



Remote Thermal Monitoring System with Visual Image Functionality

Visual and infrared cameras combined with specialized software allows remote monitoring of critical applications in real-time

Mikron's DualVision 724 Remote Thermal Monitoring System represents another milestone in innovative infrared thermometry. The system is the first to combine visual and infrared cameras to produce optimized, blended images for simple quick analysis – all in a single intranet/internet-enabled package. Designed with advanced maintenance-free electronics and Industrial Protective Packaging, the DualVision 724 system offers unparalleled accuracy for demanding industrial and scientific applications while quickly measuring temperature without contact in even the most adverse environments. With an unmatched array of optional accessories, the DualVision 724 system demonstrates Mikron's commitment to long-term trouble-free operation.

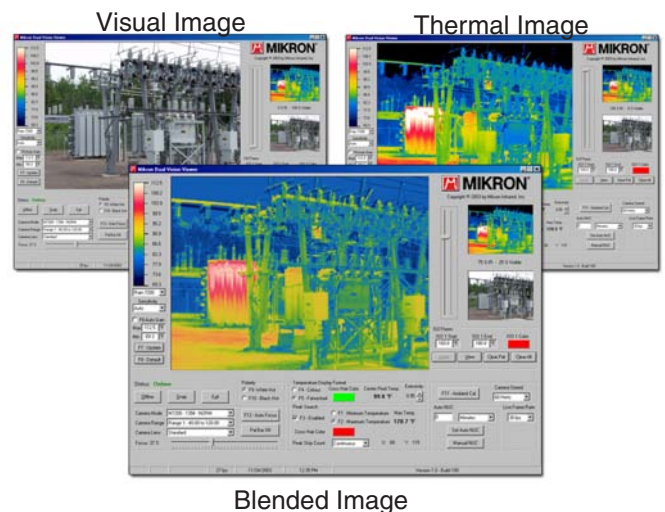


System Features/Benefits

- High Quality, Real Time Digital Image Transfer via Ethernet.
- Remote Monitoring via (wired or wireless) Ethernet
- NEMA-4 housing
- Maintenance Free operation
- Control and Alarm Triggering Software
- Infrared-Enhanced Visual Surveillance capabilities
- High Accuracy $\pm 2\%$ or 2°C of reading
- Long Wavelength, Less Affected by Sunlight
- Ambient temperatures to 100°C (212°F) with optional cooling
- IR Camera Based on Proven MikroScan 7302
- Remote Pan-And-Tilt capability (optional)
- Multiple Camera System functionality (optional)
- 8-Channel Input/Output Module (optional)

The DualVision 724 system consists of separate thermal imaging and video cameras in an environmentally sealed, temperature-controlled enclosure. Both cameras have Internet IP addresses and password protection, allowing control from any computer using wired or wireless Ethernet.

Mikron's DualVision software blends the visual and IR camera feeds into a single blended image with correct aspect ratio and spatial area. When utilized with Mikron's MikroSpec™ R/T Thermal Data Acquisition and Analysis software, the system is capable of recording up to 75 minutes of blended visual and IR video feeds in real-time. Frames can also be captured at intervals rather than continuously, or they can be triggered by a temperature alarm tied to a defined Region of Interest or by direct signal from the PC.



Technical Data

IR Camera—MikroScan 7302	Detector:	320 x 240 Uncooled Focal Plane Array (Microbolometer)
	Measurement Accuracy:	±2% or 2°C of reading
	Field of View:	29°(H) x 22°(V)
	Focus Range:	30 cm to infinity
	Instantaneous FOV:	1.58 mrad
	Spectral Band:	8.0 to 14.0 μm
	Image Update Rate:	30 Frames/sec or 60 Frames/sec (selectable)
	Sensitivity / NETD:	0.06°C @ 30°C
	Interfaces:	Ethernet, IEEE1394, NTSC/PAL, S-Video
Visual Camera	A/D Resolution:	14 bit
	Sensor:	1/4" Interline Transfer CCD
	Pixel Depth:	8 bit Digit B/W or 24 bit Digital Color
	Resolution:	640x480 or 320x240
	Shutter:	1/30s - 1/30,000s
	Sensitivity:	1-200,000 Lux
	Frame Rate:	Up to 30 Frames per Second
	Communication:	Ethernet
OnLine Visible/Thermal Image Processing Software	External Video:	CCTV Video Inputs/Outputs
	Presentation:	In run mode the system displays a live thermal image on the screen in 256 colors. Images can also be frozen.
	Remote Camera Control Functionality	Allows you to select the camera type, mode, range, temperature scale and lens. Also allows adjustments to be made for focusing, emissivity, ambient calibration, and percentage of transmission loss.
	Real-time Image and Data Acquisition	Allows large amount of data to be capture at user-adjustable capture rate.
	Multiple Regions of Interest (ROIs)	Process and compute the minimum, maximum and average temperatures for up to 32 Regions of Interest (ROIs) defined in a variety of shapes.
	Multiple Color Palettes	Offer flexibility for optimal image clarity.
	Off-Line Analysis	Replay and analyze image sequence files that have been previous captured and saved to disk.
Housing	Image Blending	Blends the visual and IR camera feeds into a single DualVision image with correct aspect ratio and spatial area. Allows hot spots to be identified while viewing the scene as a visual image. The composite image can be adjusted to show any percentage of the IR and visual.
	NEMA-4 Enclosure with Mounts	Includes IR Transparent Window, interface connections, power termination strip, vortex air cooler with thermostat control or optional solid state air conditioner or heater with thermostat control
Environmental	Operating Temperature:	-15°C to 50°C
	Storage Temperature:	-40°C to 70°C
	Shock Resilience:	30G (IEC60068-2-29/JIS C 0042)
	Vibration Resilience:	3G (IEC60068-2-6/JIS C 0040)
Electrical	Power Supply:	120 VAC 5 Amps Max Standard (10 Amps with Pan & Tilt)
Physical Characteristics	Dimensions:	8.5" (H) x 29" (L) x 10.625" (OD) (excluding projections)
	Weight:	approximately 65 lb.

Mikron reserves the right to change specifications to reflect the latest changes in technology and improvements at any time without notice. These changes will be reflected in subsequent editions of our literature when warranted.

Optional Equipment

8-Channel Input/Out Modules

Relay Output (Alarms) Module	Offers 8 relay channels with each channel driving up to 240VAC at 3 Amps
Universal Input (Remote Triggering) Module	Offers 8 channels with each channel ranging from 5 VDC to 240 VAC
4-20 mA Output Module	Offers 8 channels allowing MikroSpec R/T software to send each Region of Interest temperature to a 4-20mA output.
4-20 mA Input Module	Offers 8 channels allowing the MikroSpec R/T software to store external signals with captured temperature data.

MikroSpec R/T Multiple IR Camera System Package

The MikroSpec R/T Multiple IR Camera System Package is a unique software add-on that allows data obtained from up to 14 cameras to be monitored simultaneously in real-time on a single computer.

Lenses

The MikroScan 7302 is supplied with a standard lens offering a 29°(H) x 22°(V) field of view. Optional Telephoto and Wide Angle lenses are also available at an additional cost.

Remote-Controlled Pan/Tilt Head

A remote-controlled pan-and-tilt head is available at an additional cost.

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