

MT-MIMC-SW6415-IP

H.264/265 IP VGA SWIR Camera



640 x 512 SWIR Camera with TEC and Shutter

MT-MIMC-SW6415-IP is a compact, single-body SWIR camera. It has an InGaAs based FPA working in the 900nm-1700nm SWIR spectral band. The FPA is built using our low-noise **CTIA ROIC** called **MT6415CA**. The FPA has a format of **640 × 512** and pixel pitch of **15 μm** with an active imaging area of **9600μm × 7680μm**. The camera has a compact camera electronics built using one of the industry's lowest power and noise ADC. **MT-MIMC-SW6415-IP** provides IP video stream over ethernet port using H.264/265 encoding capability. Additionally, it is possible to get USB 2.0 UVC video from USB port. The external trigger feature makes synchronization between the camera and other hardware extremely easy. The SWIR camera has a **Shutter** and **TEC** (Thermo Electric Cooler). The camera is built with industrial components (-40/+85°C). The camera measures **51.0 mm × 51.0 mm × 68.7 mm** without optics. It weighs less than 220 grams without optics. The camera has a C-mount lens interface and comes with a 50 mm f/1.4 SWIR lens. Different lens options can be provided upon request.

Application Areas

- Driver Vision Enhancement (see through fog)
- Industrial Control (see through plastic, paint, and glass)
- Traffic Control
- Scientific Imaging
- Security and Surveillance
- Drone and UAV-based Imaging



Detailed Technical Specifications

MT-MIMC-SW6415-IP

Electrical Specifications

Array Size	Format: 640 × 512	Pitch: 15 μm
Active Area	9.60 mm × 7.68 mm	
Detector Type	InGaAs	Spectrum: 900nm-1700nm
Sensor Core	ROIC: MT6415CA	ADC
Video Output	IP Stream (RTSP), Ethernet, H.264/265 USB 2.0 UVC	
Camera Control	UART	
Frame Rate	≤ 50 fps (100 and 200 fps options are available)	
Integration Time	Programmable from 500ns to 1s in 100ns steps	
Gain	High Gain (HG)	FWC: 10 K e-
	Low Gain (LG)	FWC: 350 K e-
Input Referred Noise	≤ 15 e- rms for High Gain	
Supply Voltage	5V - 24V DC	
Power Dissipation	≤ 5W (with TEC disabled)	

Mechanical Specifications

Dimensions	51mm × 51mm × 68.7mm (w/o optics)
Weight	≤ 220 grams (w/o optics)
Mounting	2 holes with M2 size

Optical Specifications

Lens	SWIR Optimized, f/1.4, 50mm
Mount	C-Mount

