

MI0502 Product Brief

Overview:

Meridian Innovation's MI0502 (Cheetah) is a long-wave infrared (LWIR) thermal imaging camera module, powered by SenXor™ technology and featuring 2,500 pixels arranged in an 50x50 pixels focal point array (FPA).

The data will process through our MI48 Thermal Image Processor (TIP) and transform the radiometric into K. The SDK will provide the complex filters and image processing on host for temperature information as well as image.

Applications:

Monitor beyond visual spectrum

- Baby & elderly care
- Fever detection
- Manufacturing & construction
- Mobile phone

IoT with smart/AI sensing

- Smart home appliances
- HVAC systems
- Smart hazard alert
- Office and home lighting

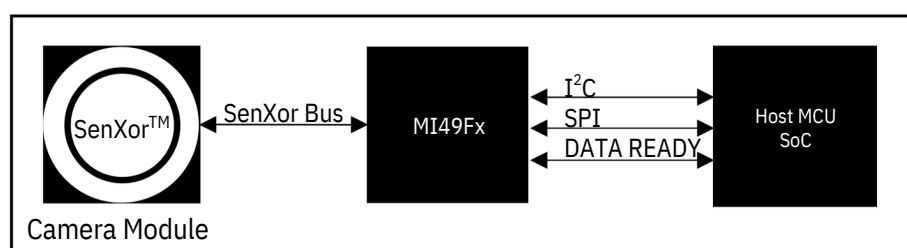
Camera Modules:

Part no.	MI0502M5S	MI0502M6S
	Available soon	
Resolution	50 x 50	
FOV (H/V/D)°	53/53	79/79/135
Module Dimension	TBD	7.4*7.4*6.3
IR Wavelength	8 -14μm	
Operating Temperature	-40 to 85°C	
Max scene temperature range	-40 to 400°C	
Interface	SPI / I2C	
Power supply	3.3V	
Power consumption	30mW	

Companion Parts

Thermal Image Processor (TIP)

MI49Fx acts as a processor for raw sensor data from the thermal imaging array. With standard communication interfaces such as I2C and SPI, as well as per-pixel calibration and bad pixel correction, the MI49Fx greatly simplifies the development of applications using the MI0502. Additionally, a dedicated voltage regulator is recommended to ensure optimal temperature readout accuracy and stability.

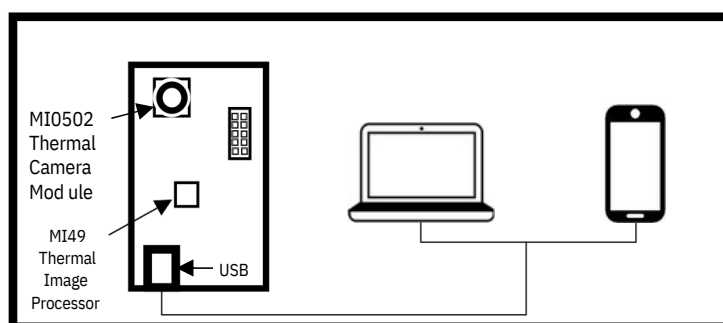


Part Number	Description
MI49Fx	TIP Core Board for MI0502 modules

Evaluation Kit (EVK)

The MI0502 Camera Module EVK contains

- MI0502 Camera Module
- MI49Fx Thermal Image Processor Core Board
- Graphical User Interface (GUI) software



Part Number	Description
MI49F0PM	TIP Core Board for MI0502 modules *Camera module is ordered separately depends on FOV required



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