MYK – D/IR-640 Technical Specification of Module

1、Product picture

2、Main features

◆ 640×512 Uncooled VOx detector

◆ High-quality images: using professional image processing algorithms including NUC, Noise reduction, and DDE, provides delicate distinct pictures.

◆Compact and convenient: small size (26mm x 26mm), light weight (22g without lens), ultra-low power consumption (<1W)

◆Rich interfaces: LVCMOS (support BT656), MIPI CSI-2, USB Type-C (extendable board), to facilitate the secondary development of customers.

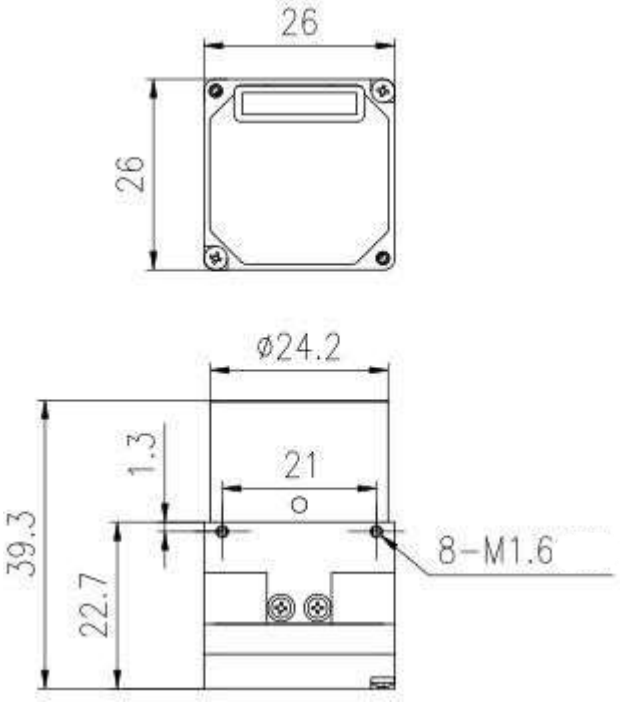
3、Lens Configuration

Athermalized fixed-focus lens：9mm、13mm、25mm、35mm（Extendable）

4、Application

Designed for compact and low-power environments, including security surveillance systems, drone platforms, and outdoor optical devices.

5、Dimensional drawing



9mm lens

6、Technical specifications

Items		MYK-D/IR-640
Performance	Detector Type	Uncooled VOx
	Resolution	640×512
	Pixel Pitch	12μm
	NETD	≤40mK
	Frame rate	50Hz
	Wavelength	8-14μm
Lens	Focus-free athermalization	9mm、13mm、25mm、35mm、（50mm extendable）
Image	Brightness/Gain Adjustment	Manual brightness/gain; Automatic brightness/manual gain; Automatic brightness/gain
	Image Enhancement	Digital Detail Enhancement DDE
	Polarity Shift	Support
	E-zoom	1.0~8.0×
	Calibration	Manual calibration, automatic calibration upon startup

	Noise Reduction	Yes

Interface	Interface	Power supply, analog video, 16 bit digital video, reserved user IO
	Analog Video Output	1 channel PAL or 1 channel NTSC
	Digital Video Output	LVCMOS（16bit YUV/14bit RAW）、MIPI CSI-2 （16bit YUV/14bit RAW）、USB Type-C（expandable）
	Control Interface	UART(TTL 3.3V)
Power system	External power supply	DC5V（4V～6V）
	Power consumption	≤1W（without expandable board）
Environmental	Working Temperature	-20℃～+60℃（-40℃~+60℃ expandable）
	Storage Temperature	-45℃～+70℃
Physical	Weight	22g （without lens）
	Dimension	26×26mm （without lens）

Note:
1. The above product performance data is recorded by MYK Vision based on certain environment testing, and the actual use depends on the external environment!
2. The above data is for reference only and is subject to change without prior notice.

Focal length	**FOV**	**Dimension（mm）**	**Human recognition/detection distance（m）**
9mm	46.2°×37.7°	W26×H26×D35	200/600
13mm	32.9°×26.6°	W26×H26×D38	300/800
25mm	17.5°×14.0°	W32×H32×D79	500/1500
35mm	12.5°×10°	W45×H45×D61	800/2400
50mm	8.8°×7.0°	W73×H73×D78	1100/3300
75mm	5.8°×4.7°	W85×H85×D100	1700/5100