

QUANTUMRED

Vision, beyond the limits.



QuantumRed VR Thermal imaging module for observation

Accuracy

Expandability

Efficiency

Accurate temperature Measurement and High quality imaging

Supports various video Formats for multiple applications

Low cost, space free, comfortable, easy installation

Precise thermal image with VGA (640x480) resolution recognizes objects accurately through learning, making it safe and suitable for building an Intelligent Transport System (ITS). It also collects invisible data to help build safe cities.

Key Features

- **VGA (640x480) resolution, 30Hz/60Hz**
- **Provides various interfaces such as USB, MIPI, CameraLink, etc.**
- **Use in various fields such as industrial, transportation, ITS, and smart city**

QuantumRed VR Module Technical Specifications

Imaging

Sensor Technology	Uncooled Microbolometer
Array Format	VGA(640X480)
Pixel Pitch	12 μm
Spectral Range	LWIR 8~14 μm
Thermal Sensitivity (NETD)	<40mK(Premium), <50mK(Industrial), <60mK(General)
Frame Rate	30Hz/60Hz (EL free)
Shutter	With shutter
Accuracy	N/A
Scene Temp. Range	N/A

Mechanical

Size (mm)	33.0(W) x 33.0(H) x 24.3(D) without lens / interface Board
Weight	55g (without lens)

Lens

FOV	59° / 12.5° / 17.4° / 22.8° / 32° / 61.1° / 75° / custom
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Electrical

Input Voltage	5.0V
Power Consumption	1.2W (without Interface Board)
Video Channel	LVC MOS(12/14bit), BT656, BT1120
	USB(UVC format), Camera-Link(LVDS format), MIPI(CSI-2 format), Analog, Ethernet

Environmental

Operating Temp.	-40°C ~ +80°C
Storage Temp.	-40°C ~ +85°C

QuantumRed Part Numbering

1		2		3		4		5		6		7		8		
Main Purpose		Resolution		Frame/Sec		Lens		HFOV		Grade		Temp. Range		Interface option		
Type	Mark	Type	Mark	Type	Mark	Type	Mark	Type	Mark	Type	Mark	Type	Mark	Type	Mark	
Surveillance (Military)	MS	640*480	640A	30Hz	3	Yes	L	5.9°	059	< 40mK	P (Premium)	-20~500°C	500	USB	U	
								12.5°	125							
Surveillance	QS			60Hz	6	No	X	17.4°	174	< 50mK	I (Industrial)	N/A	000	Camera-Link	C	
								22.8°	228							
								32°	320	< 60mK	G (General)				MIPI	M
								61.1°	611							
								75°	750							
								Custom	000					Analog	A	
														Ethernet	E	
														None	N	

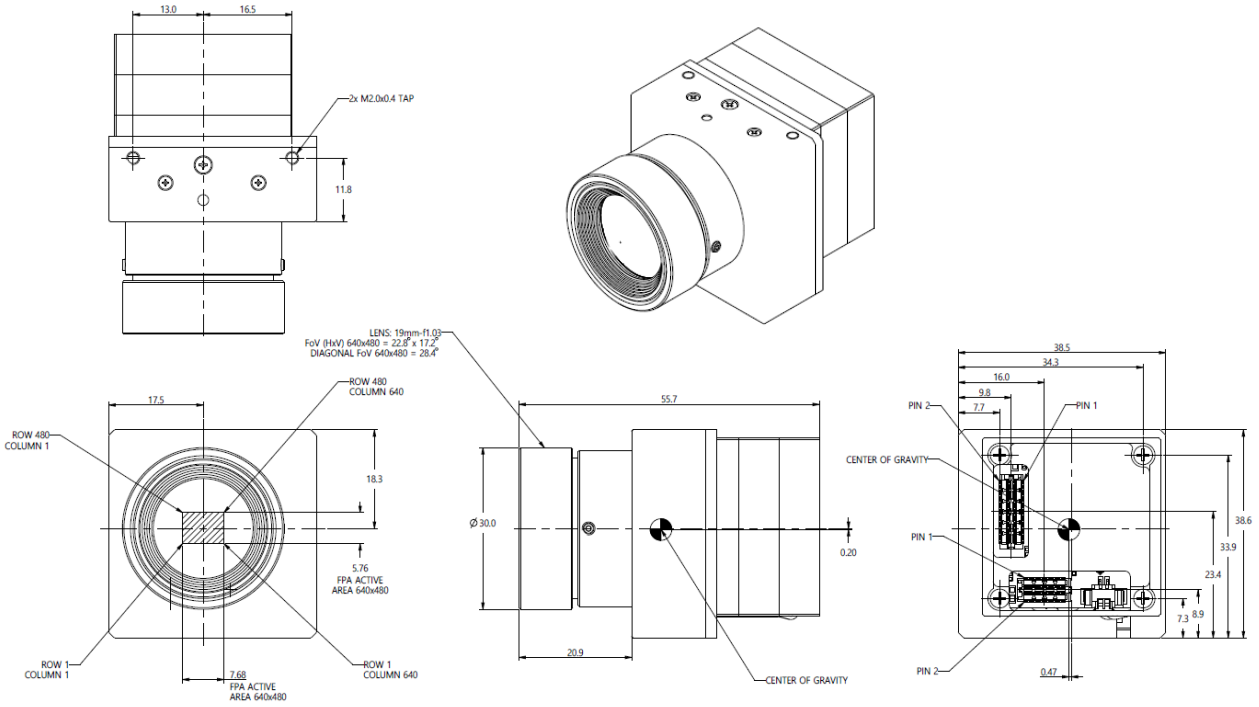
Part Numbering Sample : QS640A3L059I000U



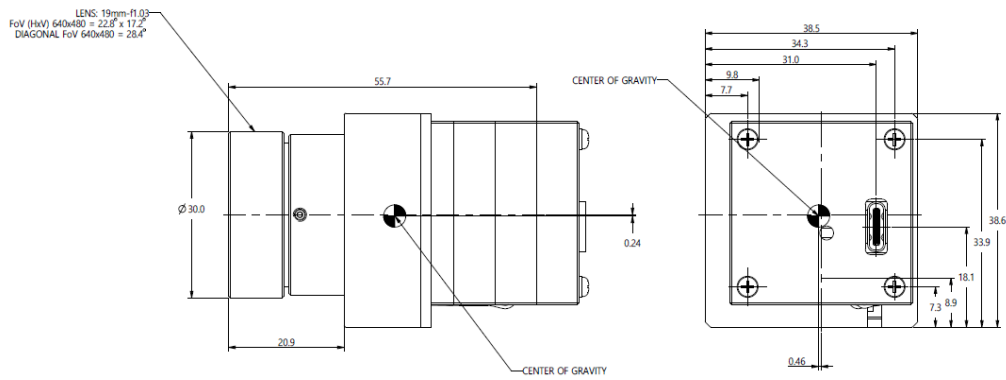
1	2	3	4	5	6	7	8
QS	640A	3	L	059	I	000	U

QuantumRed VR Module Dimensions

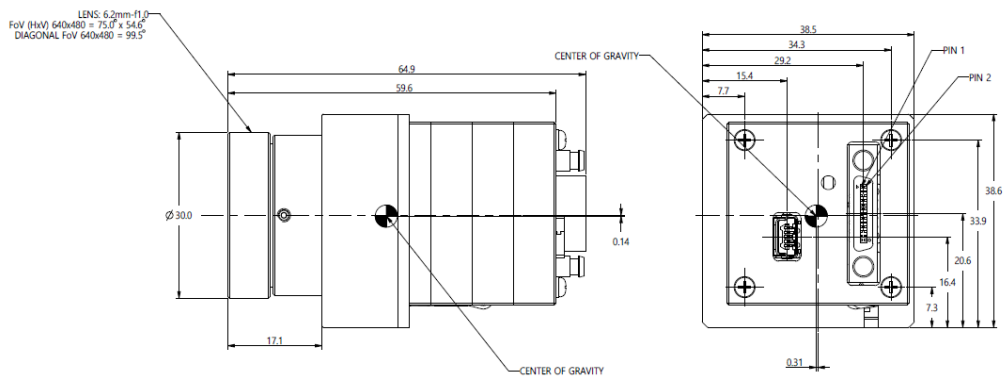
Base Module Dimension



USB Interface Dimension



Camera-Link Interface Dimension



MIPI Interface Dimension

