

QUANTUMRED

Vision, beyond the limits.



QuantumRed QRT40 For precision temperature measurement

Accuracy

Accurate temperature
Measurement and
High quality imaging

Expandability

Supports various video
Formats for multiple
applications

Efficiency

Low cost, space free,
comfortable,
easy installation

By providing the function to periodically monitor the heat of the human body and parts of animals and plants, it can enhance the effects of rehabilitation, injury prevention, exercise effect management, and animal and plant disease management.

Key Features

- QVGA (320x240) resolution, 30Hz/60Hz
- Temperature accuracy within $\pm 0.3^{\circ}\text{C}$ when combined with TRSM module
- Precise temperature measurement up to $\sim 40^{\circ}\text{C}$
- Provides various interfaces such as USB, MIPI, CameraLink, etc.
- Use in various fields such as industrial, medical, smart farm, rehabilitation, injury, human body, animal, plant, etc.

QuantumRed QRT40 Module Technical Specifications

Imaging

Sensor Technology	Uncooled Microbolometer
Array Format	QVGA(320X240)
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	±0.3°C(with TRSM), ±0.5°C
Scene Temp. Range	+30°C ~ +40°C

Mechanical

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

Lens

FOV	28° / custom
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Electrical

Input Voltage	5.0V
Power Consumption	1.2W (without TRSM / Interface Board)
Video Channel	USB(UVC format), Camera-Link(LVDS format), MIPI(CSI-2 format), Analog, Ethernet

Environmental

Operating Temp.	+10°C ~ 50°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
Temperature	QT	320*240	320A	30Hz	3	Yes	L	11.5°	115	< 40mK	P (Premium)	30~40℃	040	USB	U
								28°	280						
				60Hz	6	No	X	36°	360	< 50mK	I (Industrial)	N/A	000	Camera-Link	C
								42°	420						
								50°	500	< 60mK	G (General)			MIPI	M
								54.4°	544						
								Custom	000	Analog	A				
								Ethernet	E						
													None	N	

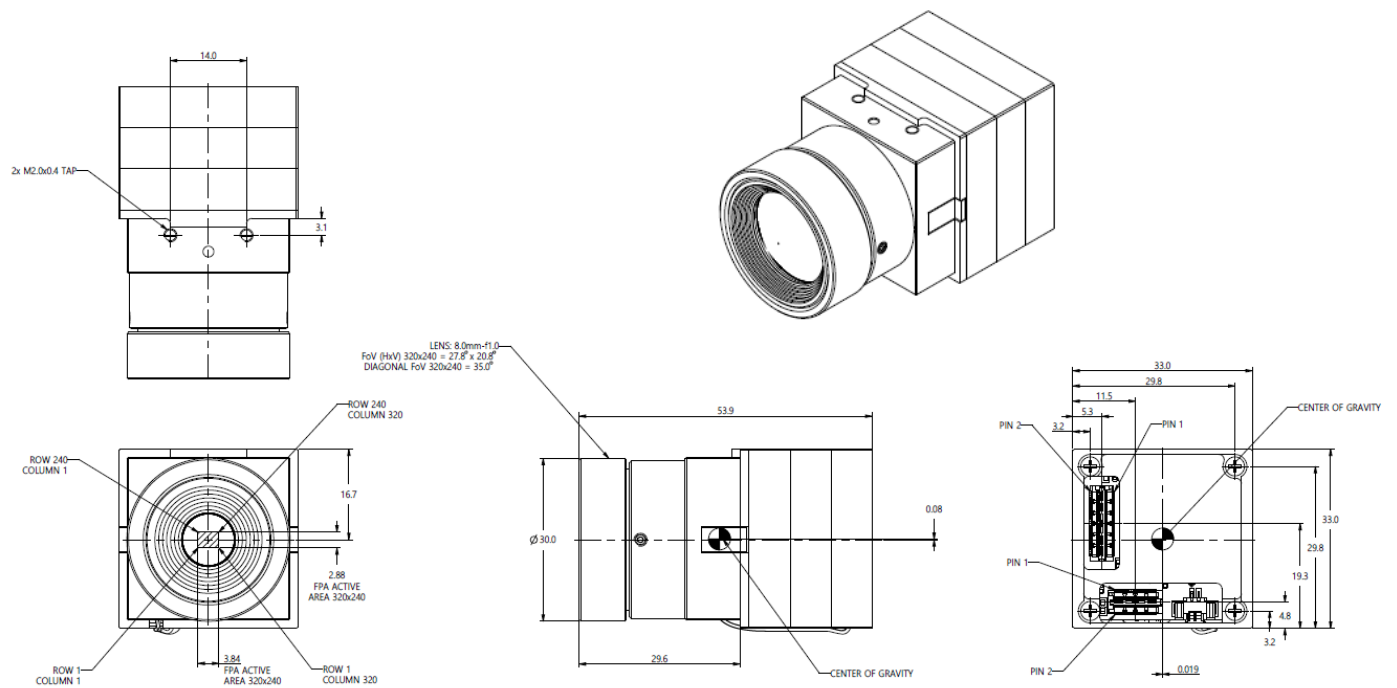
Part Numbering Sample : QT320A3L115I040U



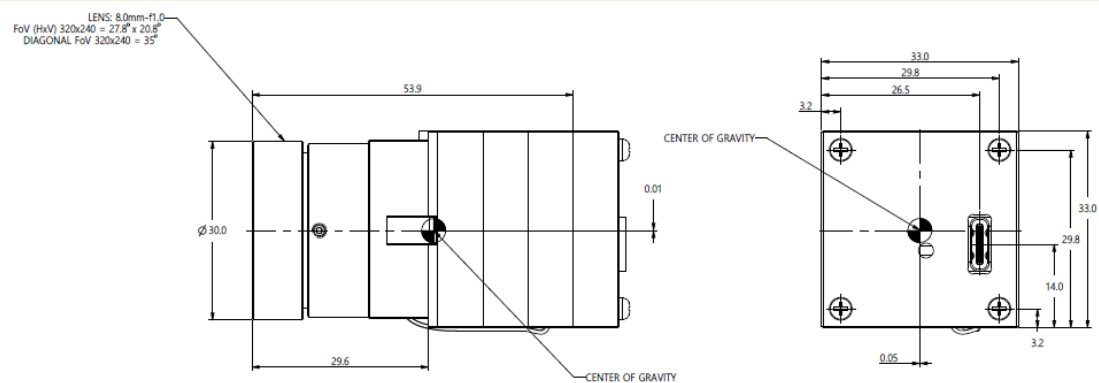
1	2	3	4	5	6	7	8
QT	320A	3	L	115	I	040	U

QuantumRed QRT40 Module Dimensions

Base Module Dimension



USB Interface Dimension



Camera-Link Interface Dimension

