

QUANTUMRED

Vision, beyond the limits.



QuantumRed QRT500 For ultra-high 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

It can measure the temperature uniformly up to 500°C,
so it can be used efficiently in the chemical industry
that develops/produces products through various chemical reactions,
the energy industry that deals with oil and gas,
the power production industry, and the field
where ultra high temperature occurs such as
semiconductor packaging This is possible.

Key Features

- QVGA (320x240) resolution, 30Hz/60Hz
- Temperature accuracy within $\pm 2^{\circ}\text{C}$
- Precise temperature measurement up to $\sim 500^{\circ}\text{C}$
- Provides various interfaces such as USB, MIPI, CameraLink, etc.
- Application in various fields such as industrial, chemical, battery, energy, power generation, and semiconductor

QuantumRed QRT500 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	±2°C or ±2%
Scene Temp. Range	~ +500°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	11.5° / 28° / 36° / 42° / 50° / 54.4° / custom
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Electrical

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

Environmental

Operating Temp.	+10°C ~ 50°C, customize available
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)	-20~500°C	500	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				

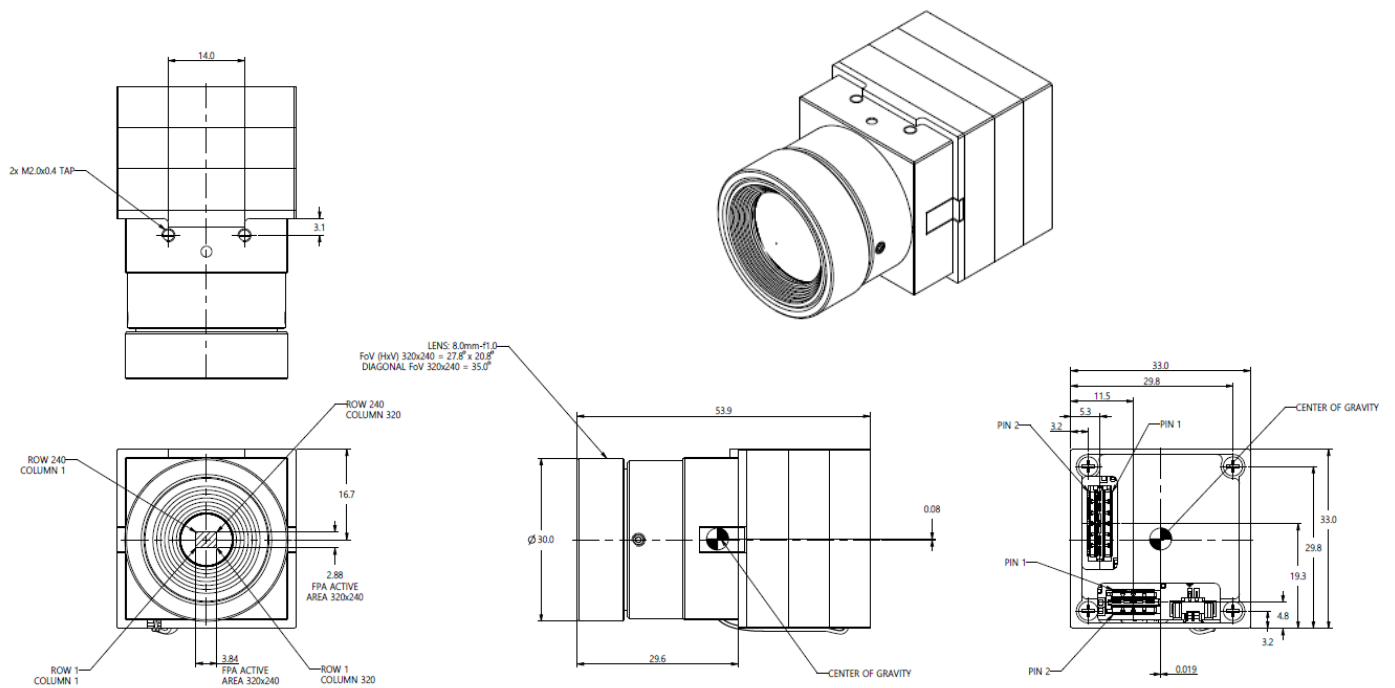
Part Numbering Sample : QT320A3L115I500U



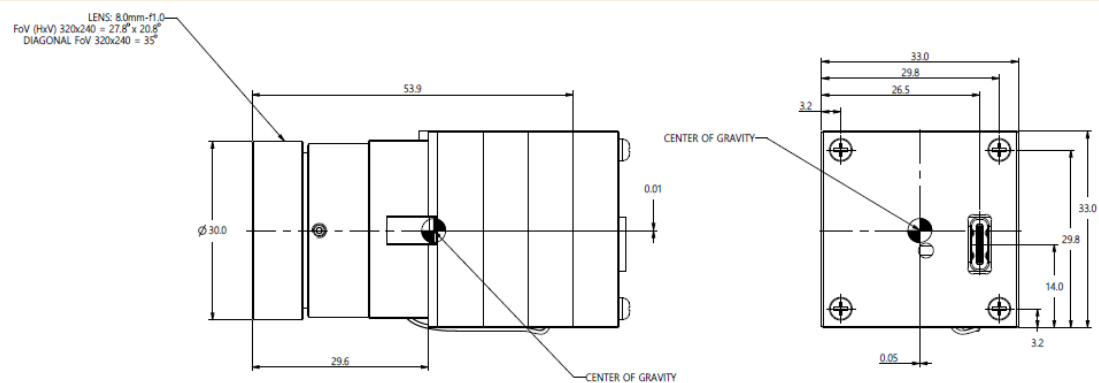
1	2	3	4	5	6	7	8
QT	320A	3	L	115	I	500	U

QuantumRed QRT500 Module Dimensions

Base Module Dimension



USB Interface Dimension



Camera-Link Interface Dimension

