

1 Features

- Resolution: 3840x2160 (4K)
- Frame rate: 60fps
- Optical format: 1/1.8"
- Gain: 0~72dB
- Video interface: Dual coaxial (MMCX)
- Power supply and button interface: A1251WR-S-3P
- Panel button interface: 2Keys
- 2D mode image delay: $\leq 60\text{ms}$
- 3D mode image delay: $\leq 80\text{ms}$
- Structure: 33.5mm x 21mm x 6.5mm

2 Overview

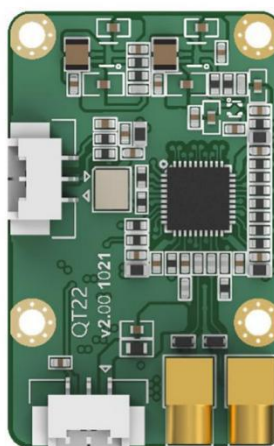
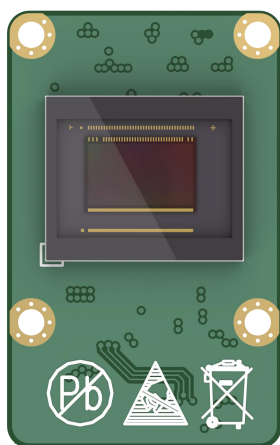
The QS82T is a compact ultra-HD camera module featuring a 21mm -wide dual-layer stacked plate structure. It incorporates SONY's ultra -low-light STARVIS21/1.8" large-sensor technology, delivering exceptional imaging performance.

When used side by side, this module fully satisfies the imaging requirements of a microscope's 3D binocular system with a 22mm left-right distance, eliminating the need to install two distinct structural modules separately. This design simplifies the 3D binocular structure, making it more compact and straightforward, while also reducing the complexity of inventory management, storage, and product maintenance.

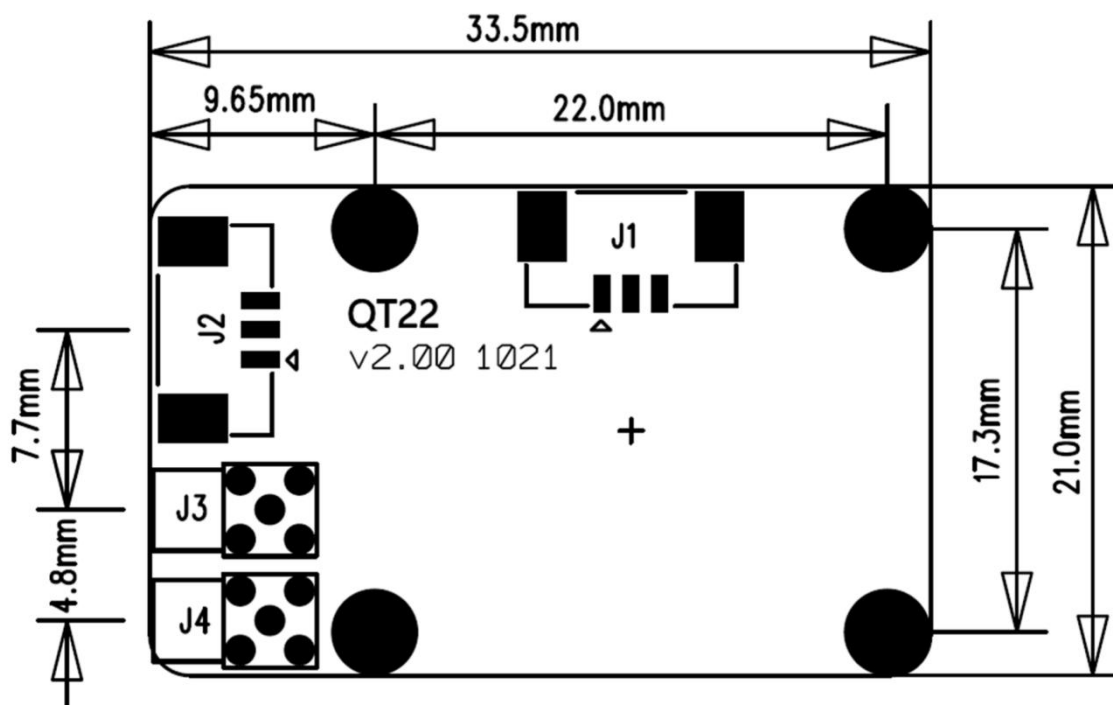
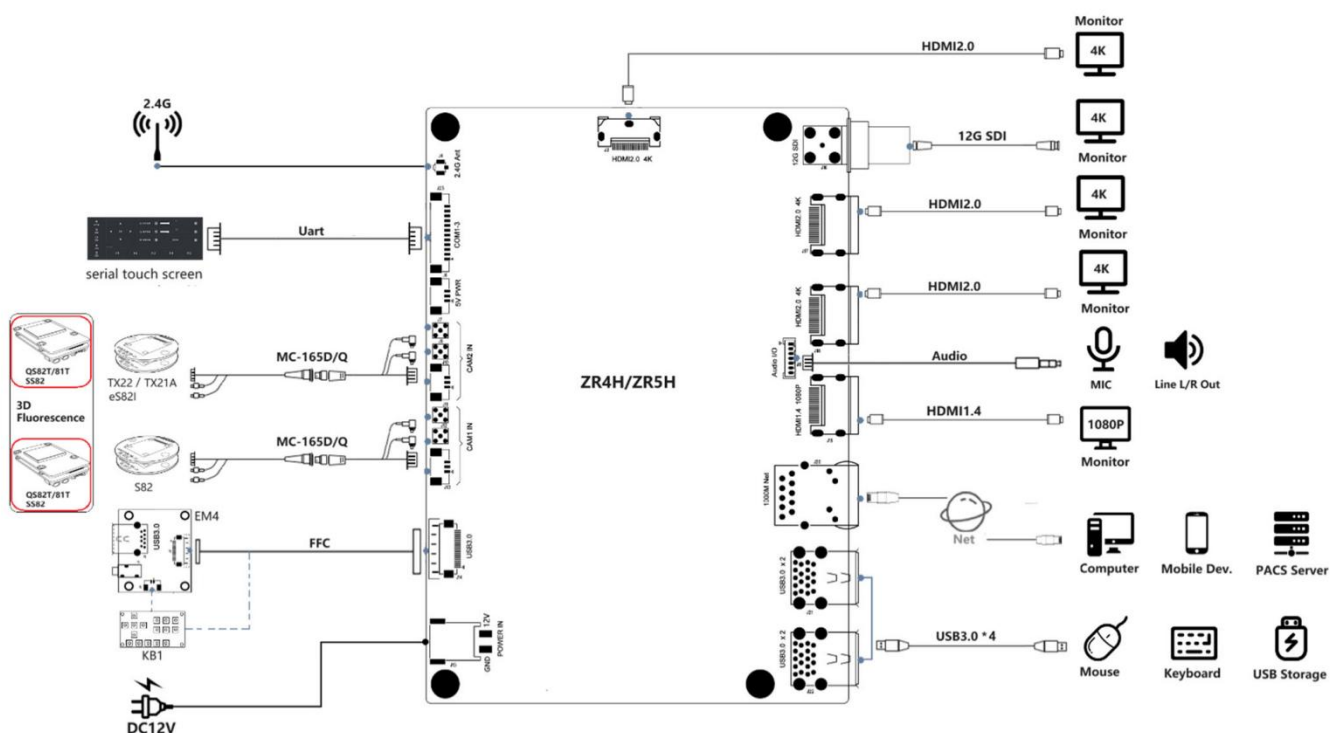
3 Main Application Scenarios

Operating microscope

Industrial microscope



QS81T Bottom View



Note: The "Δ" indicates the first pin (Pin1).

name	item	Pin definition	direction for use
power input	J2	3pin 1.25mm wafer: A1251WR-S-3P Pin1: +5V Pin2: GND Pin3: ADC IN	Connect to the corresponding motherboard interface
video monitor 525 vidicon video out	J3 J4	RF Coaxial Connector: MMCX J3: CH1 J4: CH0	Connect to the corresponding video input interface on the motherboard
Key Extension	J1	3pin 1.25mm wafer: A1251WR-S-3P Pin1: GND Pin2: Key0 Pin3: Key1	

6 Electrical Specifications

1) Work environment

parameter	minimum	typical case	maximum	explain
input voltage (V)	4.75	5	5.5	
operating power (W)			0.9	
ambient temperature (℃)	5	25	45	
humidity (%rh)	5	55	85	
atmos (kPa)	50	101	106	

7 Relevant components: MLS0xx, ZR4B, ZR5H