HC3GQ

Ultra-HD High-Speed Series — Compact Design

The Perfect Balance Between Size and Heat Dissipation



Compact Series

The HC3GQ series is another groundbreaking addition to HEVOX's high-speed camera portfolio, designed for advanced scientific research and industrial applications. Featuring a fully proprietary 20-layer PCB stack-up design and 10 Gbps on-board SerDes interconnect technology, it achieves an optimal balance between compact form factor and efficient thermal management.

Powered by HEVOX's self-developed array-based parallel storage architecture, the camera supports expandable onboard storage of up to 128 GB, delivering exceptional performance in a compact design. Compact in size, powerful in capability.

Core Features

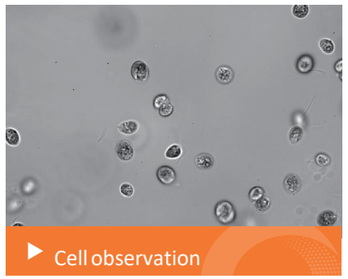


7.8μm Large pixel	**100ns** Minimum exposure time	**280ns** PLV dual exposure time
blur-free imaging Low-noise circuit design, with noise levels as low as 1 0e-	**Intelligentimaget riggering** Quickly locate key frames	**200G** shock resistance

Application Cases


▶ Drill bit cutting


▶ Powder combustion


▶ Cell observation


▶ Cell explosion


▶ blasting test

Core Functions

10GigE

PIV Double Exposure

IRIG B

Militarystandardwide temperaturerange

Auto Exposure & Double Exposure

Image Trigger

200G impact resistance

128GB
Maximum memory

Performance Parameter

Model	HC3GQ-502
Full-frame resolution	2560×1920
Full-frame frame rate	2000fps
Pixel size	7.8μm
Minimum exposure time	100ns
Dynamic range	64dB
Simulated gain	x2、x4、x8
Depth	8bit/10bit/12bit
Colour	Monochrome (M) / Color (C)
Incoming signal	Trigger signal, synchronization signal, Ready signal, IRIG-B signal
Output signal	Trigger signal, synchronization signal, Ready signal

※ For detailed specifications, please refer to the product leaflet.

Frame Rate Table

Model	HC3GQ-502(128G)	
Resolution ratio	Frame rate(fps)	Recording duration (s)
2560×1920	2000	13.9
2560×1440	2700	13.8
2560×960	4000	13.9
2560×512	7500	13.9
2560×128	39800	10.53
2560×8	365000	18.3

※The recording duration for the 128GB version is twice that of the 64GB version; based on this, the recording durations for the 32GB and 16GB versions can be derived. The recording times in the table above are calculated using a grayscale color palette with an 8-bit image bit depth.

Storage Configuration

Model	HC3GQ-502
RAM	16GB/32GB/64GB/128GB

Mechanical Specifications

Camera size	99D×110W×110H	Installation hole positions	Bottom: 1/4 "mounting hole × 1, 3/8" mounting hole × 1
Camera weight	＜1.8kg	Power	30W
Power supply mode	DC24V	Lens interface	E-port, compatible with F-port, C-port, and EF-port

Environmental Suitability

Working temperature	-10–50 °C; wide-temperature variant available: –40–65 °C	EMC	Support
Working humidity	Below 95% (no condensation)	Vibration resistance	Anti-transport vibration
Storage temperature	-40~70°C	Heat dissipation mthod	Active cooling, air cooling
Shock resistance	200 G, 5 ms, ±3 impact cycles per axis		

Machine Drawing

