

## Cooled Thermal Imaging Module

Combining QWIP (quantum well infrared photodetector) detector with a real-time digital imaging processing circuit, Guide Infrared has developed high resolution, long-wave thermal imaging module, taking the lead in the global IR industry. Small size, light weight, low noise, high thermal sensitivity, good non-uniformity, significantly less bad pixels and shorter cooling time, the Thermcore CQ series cooled thermal imaging module are not easily affected by flickering sunlight and smoke, making it especially suitable for long range surveillance on the dust or sea and on snowy day.

### Features and Benefits

- Long wave cooled detector, offering better performance even in heavy dust areas such as in deserts, where the detection range remains unaffected
- Quantum well detector, few bad pixels, great uniformity, image quality is not affected by flickering light on the sea and snow
- Sharper and crisper thermal image, excellent image details provides a better visual impression to the end user
- Smaller pixel size, longer detection range
- Fast cooling: shorter startup time
- Customized service, customized lens and construction to suit all requirements



### Applications

- Coast / frontier defense
- Airborne
- On-vehicle
- On-boat



# Specifications

	CQ3	CQ6
<b>Detector</b>		
Detector Material	Quantum well long wave detector	
Cooling Method	Stirling cycle cooling	
Cooling Time	4 minutes	
Spectral Range	7.5 μ m ~ 9 μ m	7.5 μ m ~ 9 μ m
Pixels	320 x 256	640 x 480
Pitch	30 μ m	25 μ m
NETD	≤15mk@25°C	≤15mk@25°C
<b>Image</b>		
Video Output	PAL(25Hz) / NTSC(30Hz)	
Digital Zoom	2 x	
Image Enhancement	DDE intelligent image enhancement technology	
Contrast & brightness adjustment	Auto / Manual	
Polarity	B&W , B&W inverse	
<b>Power System</b>		
Power Supply	Image processing part: 13V±1V DC	
	Cooler: 13.5V±0.3V DC	
Power Dissipation	Image processing part: ≤15W	
	Cooler: ≤60W	
<b>Environmental Parameters</b>		
Operating temperature	-40°C ~ +70°C	
Storage temperature	-45°C ~ +70°C	
<b>Interface</b>		
Interface	PAL video, digital video interface ( network ), serial port ( Rs422 ), power input	
<b>Physical Characteristics</b>		
Weight	<2.35kg (excluding lens)	
Size	310mm x 174mm x 110mm (excluding lens)	