

armstrong optical

Thermcore CQ series cooled thermal imaging module



The **Thermcore CQ Series** of cooled thermal imaging modules are based on high performance cooled quantum well detector arrays (320x256 or 640x512 pixels) operating in the long wave infrared waveband and incorporate the latest in real-time digital image processing capabilities.

The use of the latest **Quantum Well** technology delivers a unit with compact size, light weight, low noise, high thermal sensitivity, significantly less bad pixels and shorter cooling time. The long wave detector of the **Thermcore CQ Series** makes it less susceptible to heavy dust and flickering sunlight and smoke making it especially suitable for long range surveillance in land-based, aerial and maritime scenarios.

Detector:

Detector type	Cooled quantum well FPA
Spectral range	7.5 - 9 μ m
Sensor size	320x256 or 640x512 pixels
Pixel pitch	30 μ m (320) or 25 μ m (640)
NETD	<15mK at 25 $^{\circ}$ C
Cooler	Stirling cycle engine
Cooling time	<4min

Image:

Video output	PAL (25Hz), NTSC (30Hz)
Digital zoom	2x
Image enhancement	DDE filtering/sharpening
Brightness/contrast	Auto/manual
Polarity	BW and BW inverse

Power:

Power supply	13/13.5VDC
Power dissipation	cooling ~60W, stable <20W

Physical data:

Dimension	310x174x110mm w/o lens
Weight	2.35kg w/o lens

Interface:

Interface	Power, RS422, RCA/BNC
Video	PAL (25Hz), Digital

Environmental specification:

Operating temperature	-40 $^{\circ}$ C to +70 $^{\circ}$ C
Storage temperature	-45 $^{\circ}$ C to +75 $^{\circ}$ C

Lens systems:

End-user choice – please contact us for available options