

# TC390|TC690

## Thermal Imaging Cores

**TC390|TC690** are high level shutterless thermal imaging camera cores which can be used for various applications such as UAV&Robot integration, defense&surveillance system integration, thermal night vision and so on.

### Features

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Compact design, 38mmx38mm size,  
weight 55g

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Energy-saving design, lowest power  
consumption (less than 0.65W)

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Shutterless and IVE(Intelligent View  
Enhancement) technologies

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Isolated metal frame for radiating

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Digital zoom up to 4X

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### Applications

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Thermal imaging  
integration(telescope, thermal weapon  
sight, etc)

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Electro-optical system for UAV&aircraft  
Driver's Vision Enhancement system

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## Technical Specifications

Item	TC390	TC690
<b>Detector Data</b>		
Material	aSi	
IR resolution	384×288	640×480
Pixel pitch	17μm	
Spectral range	7.5~14μm	
NETD/Sensitivity	60mK	
<b>Lens Data</b>		
Lens(Optional)	9mm/13mm/19mm/25mm/35mm/50mm/75mm athermal lenses, various motorized lenses	
<b>Image Performance</b>		
NUC	Shutterless technology	
Image enhancement	IVE image enhancement algorithm	
Frequency	50Hz/60Hz	
Zoom	2x、4x	
Polarity/LUT mode	Black hot/White hot	
Startup time	3s	
Image gain	Auto/Manual	
Cross cursor	ON/OFF	
<b>Interface</b>		
Primary electrical connector	40pin	
Control port	RS232	
Analog video output	BNC(75Ω); CCIR/PAL	
Digital video output	16-Bit original data, 8-Bit BT656(customizable)	
Keypad	5 button keyboard	
<b>Power System</b>		
Working voltage	DC: +2.5V~+5.5V(standard: 3.7V)	
Power consumption	0.65W (BT656<1.0W)	0.85W (BT656<1.3W)
Reverse polarity protection	Yes	
Over voltage protection	Yes	
<b>Environmental Parameters</b>		
Operating temperature range	-40 ℃~+60℃	
Storage temperature range	-50 ℃~+70℃	
Humidity	5%~95% (non-condense)	
Shock	GJB150-16 2.3.1, 100g: 6msec	
Vibration	GJB150-16 2.3.1, 4.3g 3 axes, 8h	
<b>Physical Data</b>		
Size	38mm×38mm×25.1mm	
Weight	≤55g(without lens)	
Mounting	M2×0.4	
<b>Packing</b>		
Standard	Thermal imaging core, integrated cable, user manual of CD, warranty card, calibration certificate	