



# Thermal Imaging Cores TC490 / TC790G

## High end thermal cores for system integration:

The **TC490 & TC790G** thermal imaging cores are shutterless with high image quality, ultra-light weight and small size for many demanding applications, eg. UAV/UAS airborne fixed wing and rotary platforms, automated quality control systems, robotic machine vision configurations, and military and law enforcement imaging projects and many more.

### Features:

- Compact design, 28 x 28 x 21mm, 55grams
- Low power consumption: <0.75W / 1W
- Shutterless
- IVE(Intelligent View Enhancement)
- Isolated metal frame (shielded)
- Digital zoom up to 4X



### Specifications:

	TC490	TC790G
Detector material	a-Si	a-Si
Detector resolution	384 x 288 pixels	640 x 480 pixels
Pixel pitch		17µm
Spectral range		7.5 - 14µm (LWIR)
Non-Uniformity Correction		Shutterless technology
Image enhancement		IVE image enhancement algorithm
Image gain		Auto / Manual
Frame rate		50Hz
Digital zoom		2X, 4X
Polarity		White hot / Black hot
Thermal sensitivity (NETD)	≤ 60mK	≤ 50mK
Start up time:		3 seconds
Available lenses		Athermalized 9, 13, 19, 25, 35mm lenses
Spot measurement		On / Off
Power connector		40pins
Control		RS232
Analog video output		PAL
Digital video output		CameraLink, LVCMOS, BT656 (8-bit)



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## Specifications (cont'd):

	TC490	TC790G
Keypad		5 button keypad
Power		DC +2,5V~+5.5V (standard 3.7V)
Power consumption	0.75W	1W
Reverse polarity protection		Yes
Over-/Under voltage protection		Yes
Operating temperature		-40°C~+60°C
Storage temperature		-50°C~+70°C
Humidity		5%~95% RH (non condensing)
Shock resistance		GJB150-16-2.3.1, 100g, 6msec
Vibration resistance		GJB150-16 2.3.1, 4.3g 3 axes, 8h
Physical data:	Dimensions	28 x 28 x 21mm
	Weight	≤ 35g (without lens)
	Mount	M2 x 0.4
Standard accessories	Thermal imaging core, interface cable, User manual or CD, warranty card, standard calibration certificate	

