



Warrior Systems



## 640 x 480 Product Specifications

### NanoCore® 640 Features

- Small size, light weight, and low power
- 17µm pitch Focal Plane Array
- Two channels of digital video operating simultaneously
- Scene Colorization, 8 temperature set-points
- Logo, symbology and text string programming
- Battery indicator, crosshair, digital temp and temp bar display
- Two serial interfaces for communication & control; Serial TTL and USB
- Two discrete inputs, programmable
- Continuous Electronics Zoom, 1x – 8x
- 30Hz frame rate
- Auto-Close shutter when camera is off
- Field – Upgradeable Software
- Advanced Graphical User Interface (GUI) for camera control and setup

### NanoCore® User Interfaces

- Common electronics interface for NanoCore® 320, 640, and 1024 – for direct compatibility or upgrade in the NanoCore® series
- Common mechanical Interfaces for lens and mounting facilitates individual user integration
- Single 20 pin cable or board to board connection for testing and integration.
- Simultaneous Camera Link™ and NTSC video output
- Additionally, custom optical, mechanical, and system electronics can be provided by L-3 to users' specifications
- Includes electronics for video formats and wide power range, and is available with choice of optics

## NanoCore® 640 x 480



(20° shown)

	NanoCore®640C		NanoCore®640C		
<b>Part No. – 30Hz</b>	5001754-1	5001756-1	5001756-2	5001756-3	
<b>Part No. – 9 Hz</b>	5001749-1	5001751-1	5001751-2	5001751-3	
<b>Infrared</b>					
FPA Type	Uncooled a-Si Microbolometer				
FPA Resolution	640 x 480				
FPA pixel pitch	17µm				
Spectral Band	LWIR				
Sensitivity	< 40 mK (with f/1.0 optic)				
Frame Rate	30Hz				
<b>Optics</b>		<b>Additional optics can be adapted per user specifications</b>			
Focal Length	None	45mm	30mm	15mm	
FOV (Horiz x Vert.)	N/A	14° x 10°	20° x 15°	40° x 30°	
F/#	N/A	f/1.2	f/1.0	f/1.0	
Lens Type	N/A	Atherm Manual focus	Atherm Manual focus	Atherm Manual focus	
Waterproof (3 meters)	N/A	IP68	IP68	IP68	
<b>Performance</b>					
Size (WxHxL)	1.5" x 1.5" x 1.8"	2.2" x 2.2" x 4.1"	2.0" x 2.0" x 3.5"	1.8" x 1.8" x 3.5"	
Weight	60 g	229 g	209 g	194 g	
Power	<1.1 Watt *typical				
<b>Features</b>					
Power input	2.1-3.6 Vdc and 8-16Vdc				
Digital Outputs	2 Channels Simultaneously				
Ch.1 Depth ; Format	8/16/24bit ; CameraLink (30Hz models)				
Ch.2 Depth ; Format	8bit ; NTSC (supports 24 bit color)				
Turn on time	<4 sec				
Electronic Zoom	1-8x Continuous				
Image Processing	Histogram or AGC				
Polarity	Black Hot or White Hot				
Touch-up	Automatic (and Programmable) or Manual				
Serial Comm.	Serial TTL or USB2.0 Full-Speed or High Speed (programmable)				
Discrete I/O	2 inputs (programmable)				
<b>Environment</b>					
Temperature, Operating	- 40° C to +85° C				
Temperature, Storage	-45° C to +100° C				
Mechanical Shock	20g (11ms) and 500g (0.4ms)				
Mechanical Vibration	4.71G (20Hz to 2000Hz)				
Humidity	5% - 95% RH (non-condense)				

Items described herein may require US Government authorization for export.

\*3Vdc input and NTSC encoder turned OFF