NanoCore 640™

640 x 480

Product Specifications

NanoCore™ 640 Features

- Small size, light weight, and low power
- 17um pitch Focal Plane Array
- Two channels of digital video operating simultaneously
- Two serial interfaces for communication & control: RS-232 and USB
- Two discrete inputs, programmable
- 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 80 pin connector for ease of integration with individual users’ system electronics
- Additionally, custom optical, mechanical, and system electronics can be provided by L-3 to users’ specifications
- NanoCore “M” includes electronics for video formats and input power range, and available with choice of optics

L-3 Communications Infrared Products 3414 Herrmann Dr., Garland, Texas 75041 January 2012 REV B
“Cleared by DoD/OSR for public release under OSR Ref. 12-S-0501 on December 20, 2011.”
# NanoCore™ 640 x 480

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## Infrared
- **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

## Optics
- **Focal Length**: None | 45mm | 30mm | 15mm
- **FOV (Horiz x Vert.)**: N/A | 14° x 10° | 20° x 15° | 40° x 30°
- **F/No**: N/A | f/1.2 | f/1.0 | f/1.0
- **Lens Type**: N/A | Atherm | Atherm | Atherm
- **Performance**: N/A | Manual focus | Manual focus | Manual focus
- **Waterproof (3 meters)**: N/A | IP68 | IP68 | IP68

## Performance
- **Size (WxHxL)**: 1.5” x 1.5” x 1.5” | 2.2” x 2.2” x 4.2” | 2.0” x 2.0” x 3.7” | 1.8” x 1.8” x 3.7”
- **Weight**: 52 g | 233 g | 210 g | 194 g
- **Power**: <1.1 Watt | <1.4 Watts

## Features
- **Power input**: 3.3 Vdc | 5 – 28 Vdc
- **Digital Outputs**: 2 Channels Simultaneously | 2 Channels Simultaneously
  - Ch.1 Depth; Format: 8/16/24bit; Parallel | 8/16/24bit; CameraLink
  - Ch.2 Depth; Format: 8bit; BT.656 | 8bit; NTSC
- **Turn on time**: <3 sec
- **Electronic Zoom**: 1x – 4x (0.25x step) and 4x – 8x (1x step)
- **Image Processing**: Histogram or AGC
- **Polarity**: Black Hot or White Hot
- **Touch-up**: Automatic (and Programmable) or Manual
- **Serial Comm.**: RS-232 or USB2.0 Full-Speed
- **Discrete I/O**: 2 Inputs (programmable)

## Environment
- **Temperature, Operating**: -40° C to +85° C
- **Temperature, Storage**: -45° C to +105° C
- **Mechanical Shock**: 20g (11ms) and 500g (0.4ms)
- **Mechanical Vibration**: 4.3G (20Hz to 2000Hz)
- **Humidity**: 5% - 95% RH (non-condense)

Items described herein may require US Government authorization for export.

Specifications are subject to change without notice.

Camera Link™ is a registered trademark of AIA. NanoCore™ is a registered trademark of L-3 Communications.

Please call for additional information.