



**L3HARRIS™**  
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# ULTRA-COMPACT MWIR CONTINUOUS ZOOM CAMERA

## ORCA SD/HD

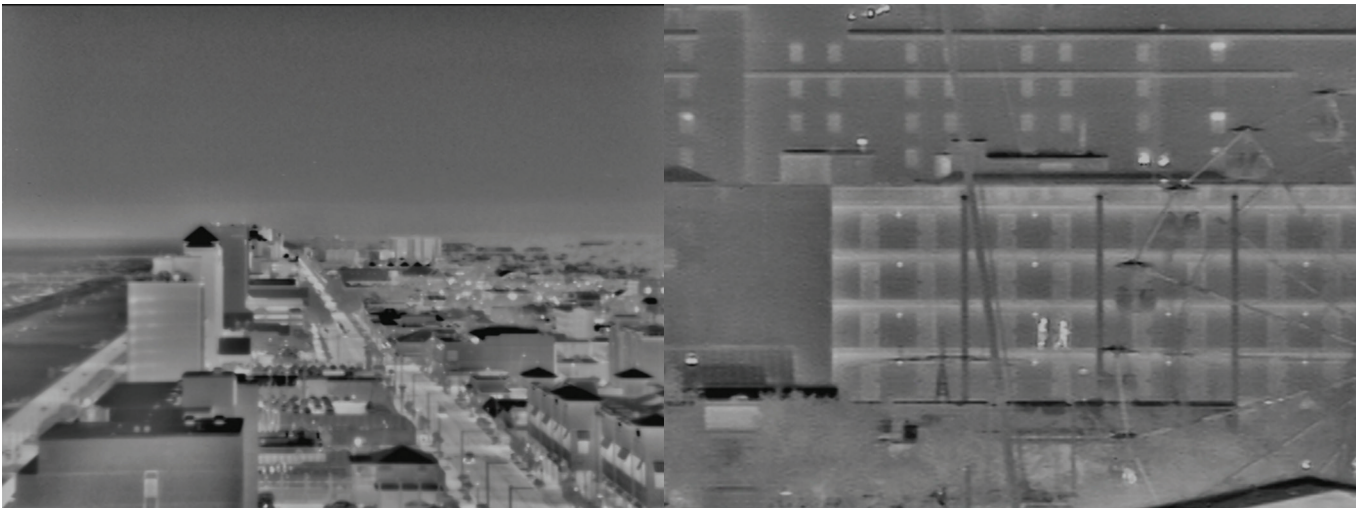
CAMERA	ORCA SD	ORCA HD
<b>Camera System Parameters</b>		
Sensor Type	Hot MWIR, reticulated	Hot MWIR, reticulated
Sensor Size	640 x 512 pixels, 15 µm pitch	1280 x 720 pixels, 8µm pitch
Spectral Band	MWIR	MWIR
NETD	< 30 mk	< 40 mk
System Control	RS-422 serial interface (115.2 kbps)	RS-422 serial interface (115.2 kbps)
Video Format	RS-170A (analog) SDI Camera Link	HD-SDI Camera Link
<b>Lens Parameters</b>		
Focal Length	30 to 260 mm continuous zoom	16 to 139 mm continuous zoom
Wide FOV	30 mm (18.2 ° x 14.6 °)	16 mm (35.5 ° x 20.4 °)
Narrow FOV	260 mm (2.1 ° x 1.7 °)	139 mm (4.22 ° x 237 °)
<b>Power</b>		
Power Source	+12 VDC	+12 VDC
Steady State	< 14 W	< 14 W
Turn On	< 20 W	< 20 W
<b>Mechanical/Environmental</b>		
Weight	< 3.5 lb	< 5.5 lb
Size	8.93" L x 3.33" W x 3.65" H	10.64" L x 4.00" W x 4.36" H
Operating Temperature	-32 °C to + 70 °C	-32 °C to +70 °C
Storage Temperature	-32 °C to + 85 °C	-32 °C to +85 °C
<b>Enclosure Options</b>		
	Aluminum base mount Open frame Custom	Aluminum base mount Open frame Custom



Low size, weight and power (SWaP) and great video in one camera. Orca is one of the smallest high-resolution mid-wave infrared (MWIR) cooled cameras in the world. Based on our high-operating temperature MWIR focal plane array technology, this high-performance camera delivers superior imaging quality and is ideally suited for SWaP-sensitive air, sea and land applications. This unit has been designed for easy integration into a variety of applications, including electro-optical payloads, weapon sights, handheld viewers, remote weapon stations and enhanced vision systems. Orca consists of an integrated detector/dewar cooler assembly and camera electronics combined with our patented image enhancement processing.

Featuring patented reticulated pixels that eliminate FPA “crosstalk,” resulting in exceptionally crisp IR images. The continuous zoom lens allows the operator to frame the field-of-view to suit the surveillance need. Ultra-small size, light-weight and uses low power consumption. Super-resolution zoom improves D/R/I range in the SD version only. The scene-based non-uniformity correction automates and simplifies sensor calibration.

The ruggedized frame enables use in a wide variety of applications. Critical IR sensor technology is 100 percent designed, manufactured and supported by L3Harris and ensures long-term support and reduced obsolescence issues.



## PROVIDES A FULL SUITE OF ADVANCED FEATURES

Analog and digital video outputs offer flexibility and easy fielding - ideal for upgrades of legacy systems or integration into new designs. A long-life B512, integrated split-Stirling cryocooler, is optimized for 24/7 con-ops. Also included are local area contrast enhancement, interpolated electronic zoom up to 4x, electronic pan, automatic scene-based non-uniformity correction, auto-focus, edge enhancement, adaptive temporal noise reduction, super resolution and selectable region of interest for AGLC and ALC. The suite also offers dynamic range: up to 8 selectable ranges, image polarity (white or black hot) video freeze, video orientation and muzzle-flash suppression. Electronic image stabilization and turbulence mitigation are available only in the SD version.

### ORCA

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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