



TENUM 640®

HIGH-PERFORMANCE TEN-MICRON PIXEL PITCH LWIR



The Tenum 640 represents the smallest pixel pitch long-wave infrared camera core on the market. It delivers striking detail and sensitivity in a compact, cost-effective package.

DETAILS

The Tenum 640 is a cutting-edge, competitively-priced camera core that delivers exceptional imagery and is supported by a respected team of industry experts.

With a 10 micron pixel pitch and <30 mK NETD sensitivity, the Tenum 640 represents the latest evolution in low SWaP long-wave infrared technology. Made in the USA by Leonardo DRS, industry pioneers in high-sensitivity microbolometer technology, the series of 640x512 resolution cameras is distributed and supported in North America exclusively by Sierra-Olympic Technologies, Inc.

As a trusted supplier and OEM partner, Sierra-Olympic works directly with Tenum 640 customers to ensure successful systems integration, out-of-box operation, and follow-up support.

- + 10µ 640x512 uncooled VOx microbolometer sensor
- + 8 lens options + no-lens option available
- + Sensitivity <30 mK NETD with 3-D noise filter
- + 60 Hz frame rate (9 Hz option available)
- + Uncooled, compact, light, durable



APPLICATIONS

- + Security and surveillance
- + Machine vision
- + Search and rescue
- + Law enforcement
- + OEM integration
- + Unmanned vehicles
- + Traffic monitoring
- + Precision agriculture
- + Medical imaging





TENUM 640[®]

HIGH-PERFORMANCE TEN-MICRON PIXEL PITCH LWIR

EXPORT CLASSIFICATION: DUAL USE

FEATURE SPECS

DETECTOR



Detector Type	Uncooled VOx Microbolometer
Array Format	640 x 512
Pixel Pitch	10 Micron
Spectral Response	LWIR (8 - 14um)
Frame Rate	60 Hz (9 Hz option available)
Sensitivity (NEdT) @ f/1.0	<50 mK
Sensitivity w/ 3-D noise filter	<30 mK

ENVIRONMENTAL



Size (L x W x H)	No Lens: 31.3 x 28.8 x 27.2 mm 4.3 mm: 31.3 x 28.8 x 33.7 mm 5.5 mm: 31.3 x 28.8 x 38.0 mm 7.7 mm: 31.3 x 28.8 x 34.2 mm 9.3 mm: 31.3 x 28.8 x 30.0 mm 15 mm: 31.3 x 28.8 x 41.0 mm 20 mm: 31.3 x 28.8 x 43.2 mm 30 mm: 31.3 x 32.0 x 43.7 mm 35 mm: 31.3 x 45.0 x 57.2 mm
Weight	No Lens: 29g 4.3 mm: 41g 5.5 mm: 42g 7.7 mm: 39g 9.3 mm: 46g 15 mm: 45g 20 mm: 48g 30 mm: 84g 35 mm: 129g
Input Voltage	3-5.5 V base configuration 4.5 - 18 V with feature board
Power Dissipation (nominal)	<1.2 W base configuration <1.4 with feature board
Operating Temp Range	-40°C to +70°C
Mounting	Bulkhead
Sealed Rating	IP67

SYSTEM



Analog video Output	NTSC/PAL (req. feature board)
Digital Video Output	14-bit/8-bit LVCMOS or Camera Link [®]
NUC	1-point with shutter or through lens
Image Enhancement	Image Contrast Enhancement (ICE [™]) with gain and level bias controls
Color Palette Options	24-bit RGB & YUV (4,2,2) Superframe
Digital Zoom and Pan	Region of interest, E-zoom from 1X - 4X
Camera Control/Command Interfaces/System Control	UART/RS-232, USB 2.0
Other Electrical Interfaces	External sync

LENS MODELS



	HFOV x VFOV	F/#
No Lens	No Lens	N/A
4.3 mm	90° x 72°	1.2
5.5 mm	70° x 56°	1.2
7.7 mm	50° x 40°	1.3
9.3 mm	40° x 32°	1.3
15 mm	25° x 20°	1.2
20 mm	18° x 15°	1.2
30 mm	12° x 10°	1.3
35 mm	10° x 8°	1.2

This is a product of Leonardo DRS, for which Sierra-Olympia Technologies, Inc. is the exclusive North American distributor. Specifications and descriptions subject to change without notice.