



The 10-micron technology behind the all new Tenum® 1280 puts Leonardo DRS significantly ahead of its competitors in the race to smaller pixel pitch and lower cost products among manufacturers of infrared detectors.

DETAILS

The 10-micron Vanadium Oxide (VOx) microbolometer design is approximately 30% smaller than competing 12-micron FPAs. The design supports a variety of different lens configurations and the smaller pixel pitch of Tenum® 1280 enables smaller, lower cost optical lens assemblies. Tenum® 1280 offers backward compatibility with existing Tamarisk® products with similar interface, software protocols, feature sets, and camera control software.

Leonardo DRS maintains its position of leadership through continuous innovation and a commitment to ensuring that the product performance is never compromised for lower cost solutions. As evidence, Tenum® offers a proven 1280 x 1024 sensor capable of incredible sensitivity that is ideal for a variety of OEM applications.

APPLICATIONS

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





- + 10 micron pixel pitch technology
- + No-lens modules weighing less than 70 grams
- + 1280 x 1024 (SXGA), 14-bit video
- + Integrated Image Processing







TENUM® 1280

THE NEW FRONTIER FOR UNCOOLED INFRARED

EXPORT CLASSIFICATION: DUAL USE

FEATURE SPECS

DETECTOR

Detector Type	Uncooled VOx Microbolometer
Array Format	1280 x 1024 (SXGA)
Pixel Pitch	10 Micron
Spectral Response	LWIR
Frame Rate	30 Hz 9 Hz available
Bit Depth	14-bit
NETD	<30 mK (normalized, filtered) <60 mK (normalized)

Digital Video Output	3.0 - 5.5 V Base Configuration, 4.5 - 18.0 V with Feature Board
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
Digital Zoom/Pan	1X to 4X
Camera Control/ Command Interfaces/ System Control	UART/RS-232 USB 2.0

ENVIRONMENTAL

Operating Temperature	-40°C to +70°C
Power Dissipation	2.3 - 7.5W Base Configuration, 2.4 - 7.5W with Feature Board
Input Voltage	3.0 - 5.5 V Base Configuration 4.5 - 18.0 V with Feature Board



LENS MODELS

	No Lens	12.8 mm	25 mm	35 mm
HFOV x VFOV	N/a	60° by 47°	30° by 23°	20° by 17°
F#	N/a	1.4	1.2	1.4
Size (L x W x H)	$31 \times 48 \times 50$ mm without feature board, $37 \times 48 \times 50$ mm with feature board	59 x 48 x 50 mm without feature board, 64 x 48 x 50mm with feature board	53 x 48 x 50 mm without feature board, 59 x 48 x 50 mm with feature board	64 x 48 x 50 mm without feature board, 69 x 48 x 50mm with feature board
Weight	62g without feature board, 67g with feature board	141g without feature board, 146g with feature board	119g without feature board, 124g with feature board	137g without feature board, 142g with feature board

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