



# VIENTO-10

10 MICRON LWIR WITH USB, SDI, MIPI OR GIGE CONNECTIVITY



With industry-standard interface options, Viento-10 is an easy-to-integrate, VGA resolution LWIR camera core that delivers best-in-class sensitivity, detail and clarity.

## DETAILS

Viento-10 is built around an industry-leading 10-micron pixel pitch camera core by Leonardo DRS. With custom-developed interface boards providing fully integrated USB 3.0 or GigE Vision® or MIPI connectivity, Viento-10 delivers universal, out-of-the-box functionality for end-users, OEMs and integrators.

A 60 Hz frame rate, a growing suite of lens options and IP67 capability make this a versatile, high-performance camera core for a wide range of thermal imaging applications.

- + USB, GigE, MIPI or SDI
- + Responsive customer service
- + Quality assured
- + Direct engineering support
- + For OEM Integrators
- + ISO 9001:2015 company

## APPLICATIONS

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

- + 10 $\mu$  640x512 uncooled VOx microbolometer
- + Variety of lens options available
- + Sensitivity <20 mK NETD with 3-D noise filter
- + 60 Hz frame rate (9 Hz option available)
- + Smaller, lighter, more affordable optics



*Viento-10 GigE*



# VIENTO-10

10 MICRON LWIR WITH USB MIPI, SDI OR GIGE CONNECTIVITY EXPORT CLASSIFICATION: DUAL USE

## FEATURE SPECS

### DETECTOR

	USB	GigE	SDI	MIPI
Detector Type	Uncooled VOx Microbolometer	Uncooled VOx Microbolometer	Uncooled VOx Microbolometer	Uncooled VOx Microbolometer
Array Format	640 x 512	640 x 512	640 x 512	640 x 512
Pixel Pitch	10 Micron	10 Micron	10 Micron	10 Micron
Spectral Response	LWIR	LWIR	LWIR	LWIR
Frame Rate	60 Hz   9 Hz available	60 Hz   9 Hz available	60 Hz	60 Hz
Bit Depth	14-bit	14-bit	14-bit	14-bit
NETD	<20 mK (normalized, filtered) <50 mK (normalized)	<20 mK (normalized, filtered) <50 mK (normalized)	<20 mK (normalized, filtered) <50 mK (normalized)	<20 mK (normalized, filtered) <50 mK (normalized)

### ENVIRONMENTAL

	USB	GigE	SDI	MIPI
Operating Temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
Power Dissipation	2W Typical, Max 6.5W during shutter (15ms per event)	4.6W Typical, 9.1W during shutter (150ms per event)	2.6W Typical, 7.5W during shutter (150ms per event)	Typical 2W, Max 8W (1.6A)
Input Voltage	5 volts, Powered via USB3.0	PoE	5-17 volts	5 Volts

### SYSTEM

	USB	GigE	SDI	MIPI
Digital Video Output	USB3.0 UVC	GigE Vision 8-bit/14-bit	HD-SDI 720p60/30 format	MIPI-CSI2 (1, 2, or 4 lane) -- Y16, Y800, YUV
NUC	1-point with shutter or through lens	1-point with shutter or through lens	1-point with shutter or through lens	1-point with shutter or through lens
Image Enhancement	Image Contrast Enhancement (ICE™) with gain and level bias controls	Image Contrast Enhancement (ICE™) with gain and level bias controls	Image Contrast Enhancement (ICE™) with gain and level bias controls	Image Contrast Enhancement (ICE™) with gain and level bias controls
Color Palette Options	YUV422	YUV422	YUV422	YUV422
Digital Zoom/Pan	1X to 4X	1X to 4X	1X to 4X	1X to 4X
Symbology	N/a	N/a	N/a	N/a
Camera Control/Command Interfaces/System Control	USB-C	Virtual Serial Pass-through	Serial Pass-through	External UART (3.3V TTL), I2C Pass-through

### LENS MODELS

	No Lens	4.3mm	5.5mm	7.7mm	15mm	20mm	30mm	35mm	55mm	73mm
FOV	N/A	90° x 72°	70° x 56°	49° x 40°	25° x 20°	18° x 15°	12° x 10°	10° x 8°	6.4° x 5.1°	5.0° x 4.0°
F#	N/A	1.2	1.2	1.3	1.2	1.2	1.3	1.2	1.0	1.05