



VIENTO HD10

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



With three connectivity options, Viento HD10 is an easy-to-integrate, LWIR camera core that delivers best-in-class sensitivity, detail and clarity in a Low-SWaP package.

DETAILS

The Viento HD10 is built around the 10µm pixel pitch camera core by Leonardo DRS. The small pixel pitch increases range and acuity with a best-in-class array resolution preserving field-of-view. The Viento HD10 is an unparalleled choice for applications where situational awareness and DRI are critical. Custom interface boards make prototyping, demonstration, and integration fast and easy with options for USB 3.0, GigE Vision®, MIPI and SDI. Supporting documentation for each interface gives out-of-the-box connectivity so work can start immediately.

- + USB, GigE, MIPI or SDI
- + Responsive customer service
- + Quality assured
- + Direct engineering support
- + Items in stock, ready to ship
- + 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



Viento HD10 GigE

- + 10µm uncooled VOx microbolometer
- + Onboard Image Processing
- + Sensitivity <30 mK NETD with 3-D noise filter
- + 30 Hz frame rate (9 Hz option available)
- + Family of lens and interface options



Railyard from cliffside



Close Up Dump Truck



VIENTO HD10

10MICRON LWIR WITH USB, GIGE, MIPI OR SDI 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	1280 x 960	1280 x 960	1280 x 960	1280 x 960
Pixel Pitch	10 Micron	10 Micron	10 Micron	10 Micron
Spectral Response	LWIR	LWIR	LWIR	LWIR
Frame Rate	30 Hz 9 Hz available	30 Hz 9 Hz available	30 Hz 9 Hz available	30 Hz 9 Hz available
Bit Depth	14-bit	14-bit	14-bit	14-bit
NETD	<30 mK (normalized, filtered) <60 mK (normalized)	<30 mK (normalized, filtered) <60 mK (normalized)	<30 mK (normalized, filtered) <60 mK (normalized)	<30 mK (normalized, filtered) <60 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	2.7W Typical, 4.6W max	5.0W Typical	3.7W Typical, 7.7W max	Typical 3W, 8W max (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: Y16, Y800 and YUY2 1280 x 1024 Only	See IP Video Output	HD-SDI 1080p30 format Centered in frame with black borders.	MIPI-CSI2 (1, 2, or 4 lane) -- Y16, Y800, YUV
NUC	640 x 512	640 x 512	640 x 512	640 x 512
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	12.8mm	25mm	35mm	
FOV	N/A	60° x 47°	30° x 23°	21° x 17°	For more information please visit SierraOlympia.com
F#	N/A	1.4	1.2	1.4	