HIGH-RESOLUTION UNCOOLED
THERMAL CORE

Xenics
EXOSENS GROUP

Crius XP S 1280 Series (NEW)

EXTREME PERFORMANCE SXGA
SHUTTERED THERMAL CORE

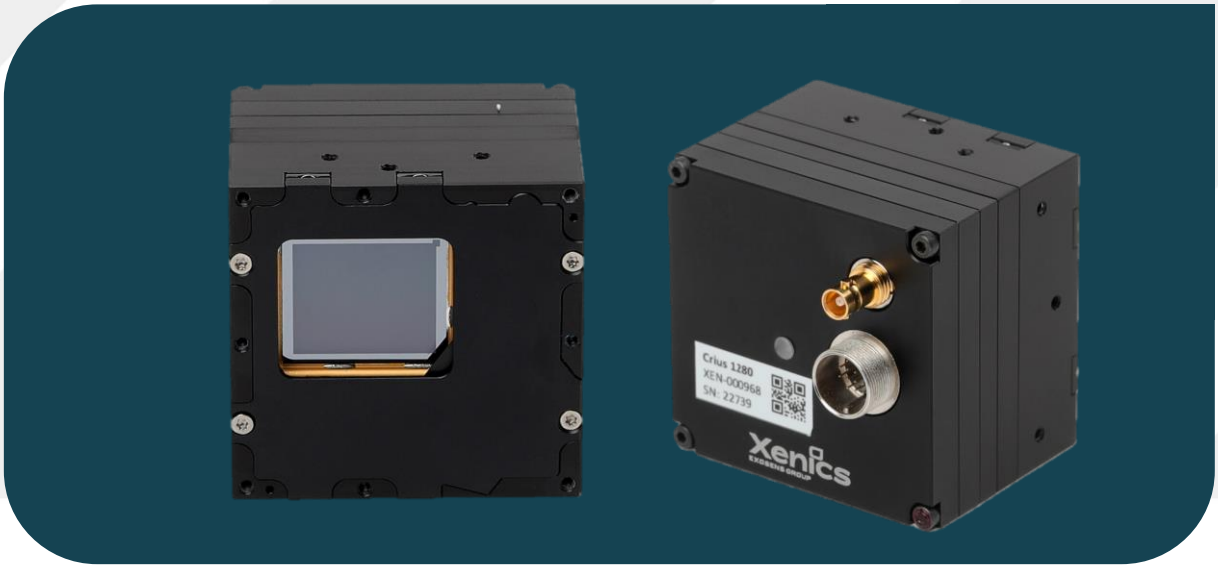
KEY FEATURES

- **UNCOOLED WITH MECHANICAL SHUTTER**
- **CONTOUR ENHANCEMENT: SHARPER DRI AND SUPERIOR OBJECT CLARITY**
- **COLUMN AND TEMPORAL DENOISING: NETD halved from 40 mK to 20 mK**
- **CONTRAST SHARPNESS CORE FOR AUTOFOCUS MANAGMENT**

The Crius XP (Extreme Performance) S 1280 is a high-performance LWIR thermal imaging core featuring 1280×1024 resolution, 12 µm pixel pitch, and a NETD below 20 mK. With a mechanical shutter and advanced contour enhancement, it delivers superior image clarity and enhanced DRI capabilities.

Its compact, low-SWaP design and flexible interfaces make it ideal for integration into mission-critical systems, including search and rescue, border surveillance, and infrastructure protection.

Crius XP S 1280 Series (NEW)



KEY PERFORMANCES

Sensor	Micro-bolometer technology
Resolution / Pixel Pitch	1280 x 1024 pixels / 12 µm
Spectral Range	8 – 14 µm
Max NETD (F/1 ; 300K ; 30 Hz)	< 20 mK with denoising
Operating temperature range	-40°C to +70°C
Power consumption (DF40)	< 2.8 W (DF40); < 4.5 W (SDI); < 3.0 W (MIPI CSI-2
Qualification	MIL-STD-810G – Method 514 Vibration: 10Hz - 2kHz 13.95g per axis 10h per axis

FUNCTIONS & INTERFACES

Image processing	BPC (Bad Pixel Correction), NUC (Non-Uniformity Correction), AGC (Automatic Gain Control)
Image optimisation	AGC (Automatic Gain Control)
Output options	DF40, SDI, MIPI CSI-2
Dimensions (L x B x H)	46 x 47 x 27 mm^3 (DF40); 46 x 47 x 43 mm^3 (SDI); 46 x 47 x 31 mm^3 (MIPI CSI-2)
Shutter options	DF40, SDI, MIPI CSI-2
Weight	<130 gr (DF40); <126 gr (SDI); <105 gr (MIPI CSI-2)

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HIGH-RESOLUTION UNCOOLED
THERMAL CORE

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Crius XP 1280 Series (NEW)

EXTREME PERFORMANCE WITH SXGA THERMAL IMAGING CORE

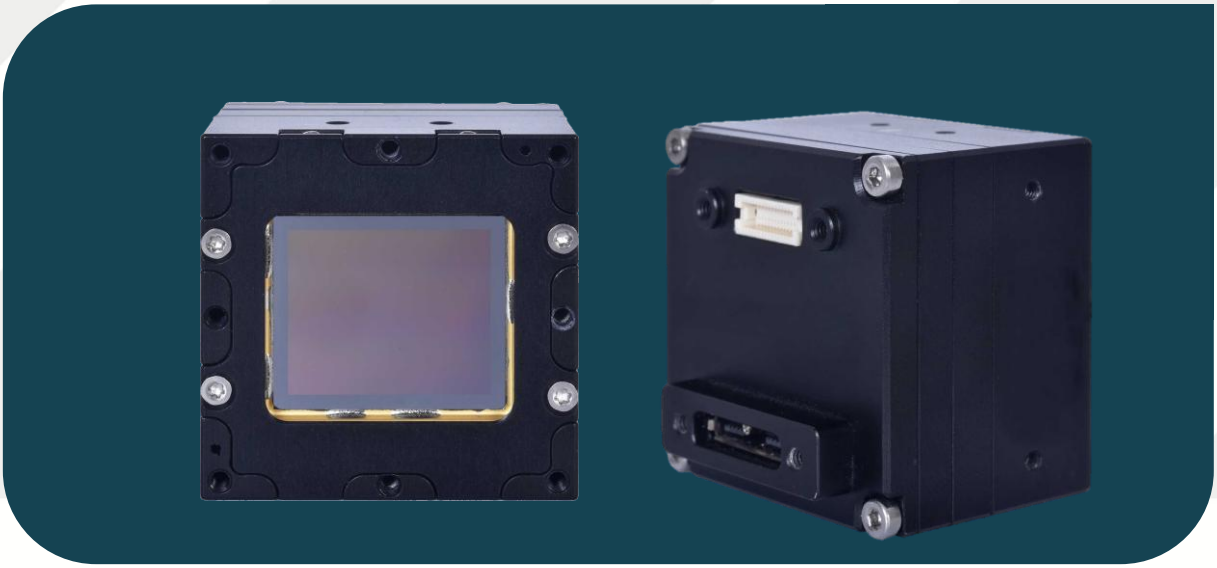
KEY FEATURES

- **ADVANCED SHUTTERLESS IMAGING WITH EMBEDDED CORRECTION**
- **CONTOUR ENHANCEMENT: SHARPER DRI AND SUPERIOR OBJECT CLARITY**
- **COLUMN AND TEMPORAL DENOISING: NETD halved from 40 mK to 20 mK**
- **CONTRAST SHARPNESS CORE FOR AUTOFOCUS MANAGMENT**

The Crius XP (Extreme Performance) 1280 delivers sharp thermal imagery with 1280x1024 resolution, 12 µm pixel pitch, and <20 mK NETD. Featuring shutterless operation, fast startup (-0.7s), and enhanced thermal stability, it ensures clear target visibility in demanding conditions.

Contour enhancement improves DRI and object perception, while its compact SWaP design and flexible interfaces enable easy integration into mission-critical defense systems.

Crius XP 1280 Series (NEW)



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Operating temperature range	-40°C to +70°C
Power consumption (DF40)	< 2.8 W
Qualification	MIL-STD-810G – Method 514 Vibration: 10Hz - 2kHz 13.95g per axis 10h per axis

FUNCTIONS & INTERFACES

Image processing	BPC (Bad Pixel Correction), NUC (Non-Uniformity Correction), AGC (Automatic Gain Control)
Image optimisation	AGC (Automatic Gain Control)
Output options	CL, SDI, DF40, MIPI CSI-2
Dimensions (L x B x H) (DF40)	35 x 35 x 27 mm^3
Weight (DF40)	< 90 gr

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HIGH-RESOLUTION UNCOOLED THERMAL CORE

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Crius 1280 Series

1.3 MEGAPIXELS IN A VERY COMPACT LWIR CORE

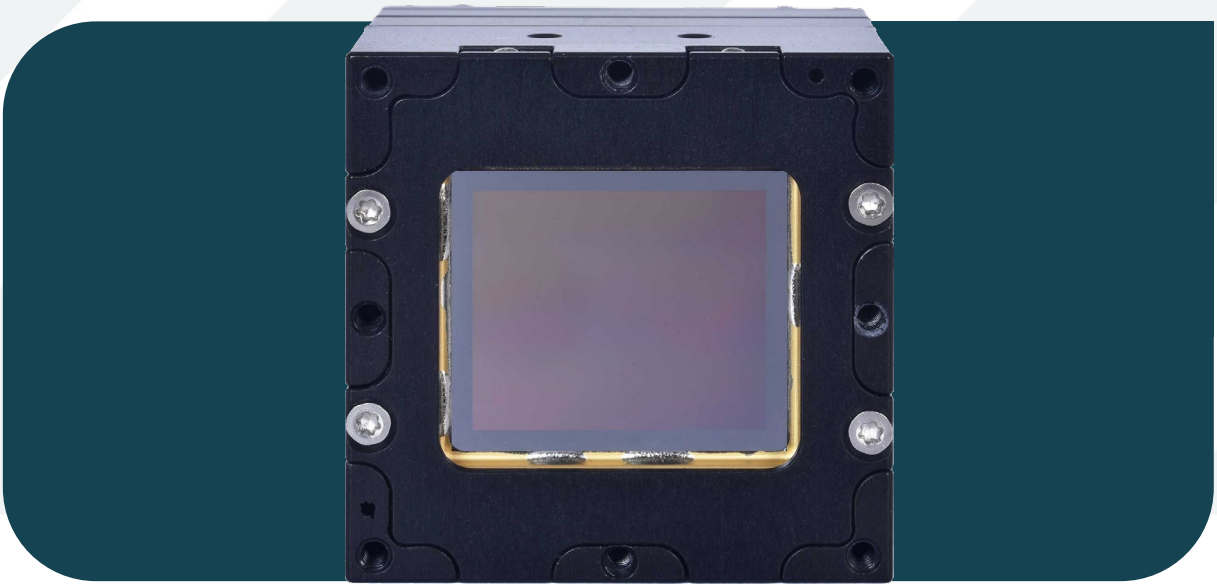
KEY FEATURES

- **VERY HIGH RESOLUTION - 12µm FOR BETTER DRI RANGES**
- **SMALL, LIGHT & LOW POWER CONSUMPTION**
- **FRAME RATE UP TO 60 FPS**

Thanks to its amazing compactness and the outstanding resolution, Crius series enable enhancement of electro optical-systems performances: major benefit is DRI (Detection Recognition Identification), a key factor for long range observation platforms in Search and Rescue or surveillance of sensitive areas for plants, border.

Its generic design ensures easy integration retrofit of existing E/O systems in defense and security.

Crius 1280 Series



KEY PERFORMANCES

Sensor	Micro-bolometer technology
Resolution / Pixel Pitch	1280 x 1024 pixels / 12 µm
Spectral Range	8 – 14 µm
Max NETD (F/1 ; 300K ; 30 Hz)	< 50 mK
Operating temperature range	-40°C to +70°C
Power consumption (DF40)	< 2.8 W
Qualification	Industrial (Standard grade)

FUNCTIONS & INTERFACES

Image processing	BPC (Bad Pixel Correction), NUC (Non-Uniformity Correction), AGC (Automatic Gain Control)
Image optimisation	AGC (Automatic Gain Control)
Output options	CL, SDI, DF40, MIPI CSI-2
Dimensions (L x B x H) (DF40)	35 x 35 x 27 mm^3
Shutter options	Shutterless (DF40, SDI, MIPI CSI-2)
Weight (DF40)	< 90 gr

PRODUCT SELECTOR GUIDE

XEN-000917 (Crius 1280 50 mK (60 Hz))	XEN-000919 (Crius 1280 50 mK (9 Hz))
XEN-000988 (Crius 1280 40 mK (9 Hz))	XEN-000989 (Crius 1280 40 mK (60 Hz))

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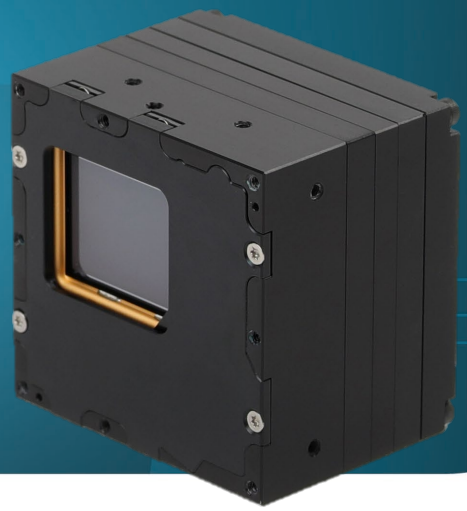
Crius S 1280 Series



ULTRA-COMPACT THERMAL CORE FOR BETTER DRI RANGES

KEY FEATURES

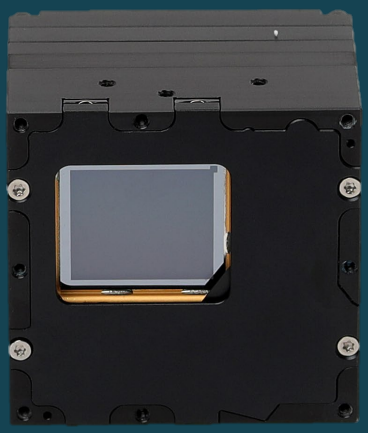
- **HIGH RESOLUTION - 12µm FOR BETTER DRI RANGES**
- **SMALL, LIGHT & LOW POWER CONSUMPTION**
- **FRAME RATE UP TO 60 FPS**
- **UNCOOLED WITH MECHANICAL SHUTTER**

The Crius S 1280 series stands out with its compact design and exceptional resolution, offering enhanced DRI (Detection, Recognition, Identification) capabilities for long-range observation platforms.

Ideal for Search and Rescue missions and the surveillance of critical areas such as borders and infrastructure, it provides unparalleled performance for electro-optical systems.

Its adaptable and universal design ensures effortless integration into existing defense and security E/O systems, making it a versatile choice for upgrading operational efficiency.

Crius S 1280 Series



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Sensor	Micro-bolometer technology
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Max NETD (F/1 ; 300K ; 30 Hz)	< 50 mK
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Power consumption (DF40)	< 2.8 W (DF40); < 4.5 W (SDI); < 3.0 W (MIPI CSI-2)
Qualification	Industrial (Standard grade)

FUNCTIONS & INTERFACES

Image processing	BPC (Bad Pixel Correction), NUC (Non-Uniformity Correction), AGC (Automatic Gain Control)
Image optimisation	AGC (Automatic Gain Control)
Output options	DF40, SDI, MIPI CSI-2
Dimensions (L x B x H)	46 x 47 x 27 mm^3 (DF40); 46 x 47 x 43 mm^3 (SDI); 46 x 47 x 31 mm^3 (MIPI CSI-2)
Shutter options	DF40, SDI, MIPI CSI-2
Weight	<130 gr (DF40); <126 gr (SDI); <105 gr (MIPI CSI-2)

PRODUCT SELECTOR GUIDE

XEN-000968 (Crius S 1280 50 mK (60 Hz))	XEN-000969 (Crius S 1280 50 mK (9 Hz))

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