

CERES T 1280 SERIES

High-resolution LWIR thermographic camera

- Compact, high-resolution and uncooled LWIR thermographic camera
- Microbolometer detector with 1280x1024 resolution and 12 μm pixel pitch



COMPACT, HIGH-RESOLUTION THERMOGRAPHIC CAMERA

The Cerēs T 1280 series is based upon the Dione 1280 OEM thermal imaging core with 1280x1024 pixels and 12 μm pixel pitch. The camera offers superior on-board thermographic performance (accuracy, stability) in the temperature range up to 400°C.

The Cerēs T 1280 camera outputs full frame images at 60 Hz via either a CameraLink or GigE Vision interface.

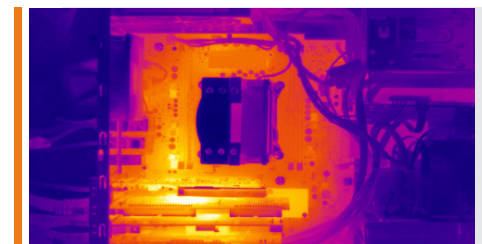
The compact size, excellent thermographic stability and accuracy, and GenICam compliant interfacing allow for easy integration in demanding industrial thermography applications. The camera comes with four different HFOV (Horizontal Field-Of-View) options: 12, 16, 25 or 48 degrees.

DESIGNED FOR USE IN

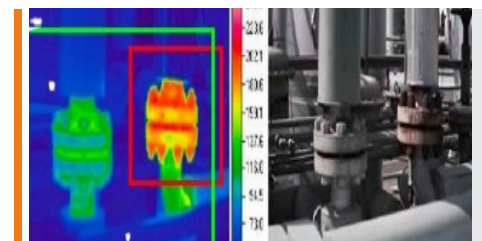
- Process Monitoring
- Medical
- Scientific & Advanced Research

ADVANTAGES

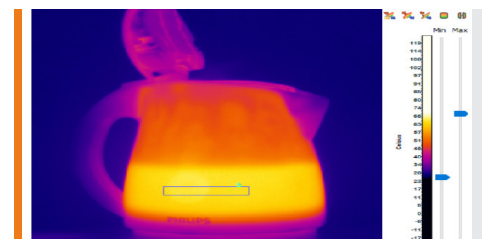
- Compact size and high-resolution
- Superior on-board thermographic performance (stability, accuracy)
- Temperature measurements up to 400°C
- Frame rate up to 60 Hz
- Low latency synchronization



PCB Inspection



Thermal imaging



Thermography

SPECIFICATIONS

Camera Specifications	Ceres T 1280 CL	Ceres T 1280 GigE
Mechanical specifications		
Approximate dimensions - excluding lens [width x height x length] [mm]	65 x 68 x 81	65 x 68 x 84
Approximate lens dimensions [diameter x length] [mm]	78 x 82.5 [Ceres T 1280 12]; 66 x 62 [Ceres T 1280 16]; 47 x 42.5 [Ceres T 1280 25]; 36 x 32 [Ceres T 1280 48]	
Weight [gr] - including lens	932 [Ceres T 1280 12]; 751 [Ceres T 1280 16]; 645 [Ceres T 1280 25]; 600 [Ceres T 1280 48]	981 [Ceres T 1280 12]; 800 [Ceres T 1280 16]; 694 [Ceres T 1280 25]; 649 [Ceres T 1280 48]
HFOV [°]	11.7 x 9.4 [Ceres T 1280 12]; 15.8 x 12.7 [Ceres T 1280 16]; 25.1 x 20.1 [Ceres T 1280 25]; 47.8 x 37.8 [Ceres T 1280 48]	
Minimum working distance [mm]	3000 [Ceres T 1280 12]; 4000 [Ceres T 1280 16]; 5000 [Ceres T 1280 25]; 2000 [Ceres T 1280 48]	
Optical interface	M45 X 0.75 [Ceres T 1280 12]; M34 x 0.5 [Ceres T 1280 16, Ceres T 1280 25, Ceres T 1280 48]	
Connector GigE	-	RJ45
Connector CameraLink	SDR-26	-
Connector power	Unified connector [Lemo 1B]	
Connector trigger	Unified connector [Lemo 1B]	
Connector I/O	Unified connector [Lemo 1B]	
Environmental & power specifications		
Ambient operating temperature range [°C]	From -40 to +70	
Storage temperature [°C]	From -40 to +85	
Power consumption [W]	5.0	5.5
Power supply voltage	DC 12 V	
Shock	40 g, 11 ms, MIL-STD810G	
Vibration	5 g (20 to 2000 Hz), MIL-STD810G	
IP rating	IP40	
Regulatory compliance	RoHS	
Electro-optical specifications		
Image format [pixels]	1280 x 1024	
Pixel pitch [µm]	12	
Detector type	Microbolometer	
Integration type	Rolling shutter	
Active area and diagonal [mm]	15.36 x 12.29 [diagonal 19.67]	
Detector NETD [Noise Equivalent Temperature Difference] [mK]	<60 [at 30Hz, 300K, F/1]	
Spectral range [nm]	8 - 14	
Pixel operability	>99.5% [excluding 3 peripheral rows and columns]	
Max frame rate [Hz] [full frame]	60	
Integration time range [µs]	20 - 65	
Analog-to-Digital [ADC] [bits]	16	
Command and control	CL	GigE
Digital output format	CL	GigE
Trigger	Unified connector [Lemo 1B]	
Thermography		
Calibration pack 1 [°C]	From -20 to +120	
Calibration pack 2 [°C]	From +50 to +400	
Temperature measurement accuracy	Either +/- 2 °C or +/- 2%, whichever is greatest	
Operating temperature range [housing temperature] [°C]	+10 to +35	
Product selector guide		
Part number	XEN-000712 [Ceres T 1280 48 CL] XEN-000743 [Ceres T 1280 25 CL] XEN-000744 [Ceres T 1280 16 CL] XEN-000745 [Ceres T 1280 12 CL]	XEN-000739 [Ceres T 1280 48 GigE] XEN-000740 [Ceres T 1280 25 GigE] XEN-000741 [Ceres T 1280 16 GigE] XEN-000742 [Ceres T 1280 12 GigE]

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