

## Calibir™ GXM Family

### Uncooled Infrared Cameras



#### Features

- » Radiometric operation for precise temperature output
- » 21 bit ADC for immense intrascene dynamic range
- » Gigabit Ethernet (GigE)
- » General purpose opto-coupled input/output (external trigger user, count, or timer driven triggering). **Contact us for other options (MIPI-CSI2)**
- » Flexible general purpose Counter and Timer functions for internal/external controls
- » Defective Pixel replacement
- » Adaptive Image Enhancement
- » **IEEE1588-2008 Precision Time Protocol synchronization capable**
- » Built-in Pseudo-color for enhanced visualization
- » Image metadata supported
- » Application development with the freely available Sopera™ LT software libraries
- » Internal mechanical shutter for remote recalibration
- » Made in Canada

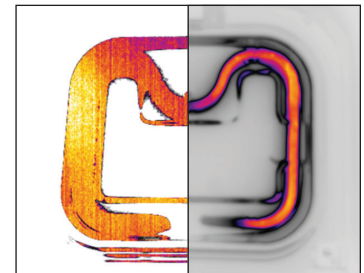
## Teledyne's Latest Microbolometer Technology

The Calibir GXM camera family features our latest microbolometer sensor, designed, fabricated, and packaged in our own foundry. It features both shutter and shutterless operation and rapid image output on power up while delivering uniform response over the entire operating temperature range, making it ideal for thermal imaging applications requiring uninterrupted image acquisition. The GXM series also offers our own advanced 21-bit ADC design for unparalleled intra-scene dynamic range without the need for a gain reduction, allowing for the best possible NETD over a vast range of temperature (>600C).

Calibir GXM has nonuniformity correction and is factory calibrated for precise, accurate radiometric performance to give you reliable absolute temperature data. Contact sales for more info.

#### General Specifications

Resolution	320 (H) x 240 (V) pixels 640 (H) x 480 (V) pixels
Frame Rate	30/60 Hz
Pixel Size	17 µm
NETD	≤50 mK; F/1.0, at 30 fps
Size	29 mm x 37 mm x 59 mm
Mass	66.7 g (without lens)
Operating Temp	-40°C to 65°C
I/O Options	GigE Vision, CSI-2



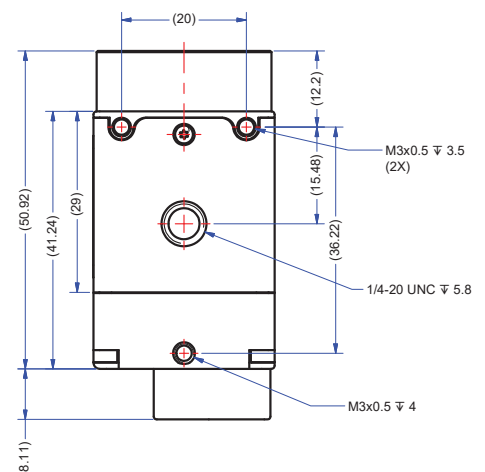
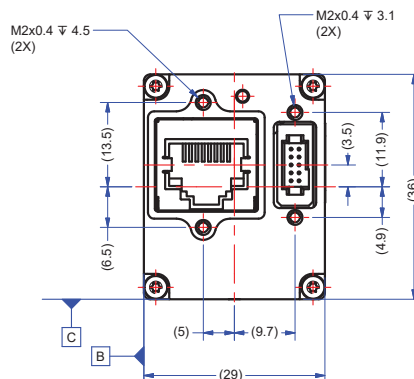
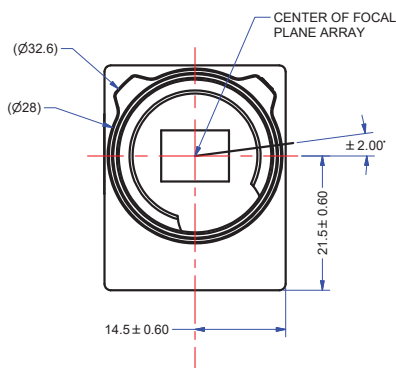
Third Party Sensor

DALSA's Deep ADC Technology

#### Regulatory Compliance

- » CE, FCC and RoHS
- » MIL-STD 810G Compliant
  - Shock and vibration
  - Thermal Shock
- » NON-ITAR, Subject to Canadian Export Regulations. Calibir is categorized as a dual use item (group 1) under the Wassenaar Arrangement.

#### Dimensions



**SPECIFICATIONS**

FEATURES		CALIBIR GXM FAMILY	
<b>Mechanical Interface</b>			
Camera with M25/M34 Lens Mount (W x H x L)	29 mm x 37 mm x 59.53 mm (with lens mount)		
Mass (without lens)	66.7 g		
Power Connector	via Samtec 10-pin connector (or optionally using PoE)		
<b>Electrical Interface</b>			
Input Voltage	12/24 V DC (min 9 V, max 57 V)		
Power Consumption	Typ	Maximum	
12 V	2.2 W	3.5 W	
24 V	2.2 W	3.6 W	
Power over Ethernet	2.7 W	4.2 W	
<b>Environmental Conditions</b>			
Operating Temperature (Ambient)	-40° C to 65° C		
Operating Relative Humidity	maximum 80% non-condensing		
Storage Temperature	-40° C to +80° C		
Storage Relative Humidity	maximum 80% non-condensing		
<b>Sensor Information</b>			
Spectral Response	8-14 µm (LWIR)		
Pixel Pitch	17 µm		
Focal Plane Array	320 x 240 (VGA)	640 x 480 (VGA)	
<b>Camera Information</b>			
Internal mechanical shutter activation time	<100 ms to change from open/closed position		
<b>Ambient Temperature (° C)</b>	<b>Sensor</b>	<b>NETD</b>	<b>Scene Range (° C)</b>
25	VGA Gen2 ROIC	<50 mK	more then -40 to 600

Model Part Numbers	Lens Mount	EFL (mm)	Aperture (1/f)	HFOV (degrees)	VFOV (degrees)	Lens Weight (g)	Total Mass (g)
IR-GMZG-4101000	M25	7.48	1.23	90.8	65.1	35	101.7
IR-GMZG-4102000	M25	8.52	1.24	73.2	54.4	34	100.7
IR-GMZG-4103000	M25	14.2	1.24	42.1	31.9	25	91.7
IR-GMZG-4104000	M25	19.0	1.03	32.3	24.4	31.2	97.9
IR-GMZG-4104500	M25	25.0	1.20	24.2	18.4	40	106.7
IR-GMZG-4105000	M25	35.0	1.14	16.9	12.9	45.9	112.6

Contact our sales for more info on a model without lens, or other lens options.

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