TELEDYNE DALSA
Everywhere**you**look™
Part of the Teledyne Imaging Group

Calibir™ DXM640
Uncooled IR VGA Camera Core

Greater functionality. Same small size

The Calibir DXM640 series 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. ULIS's gen2 sensor offers an improved NETD and the updated calibration include customized gain correction on a per lens basis to offer even better image performances and response uniformity.
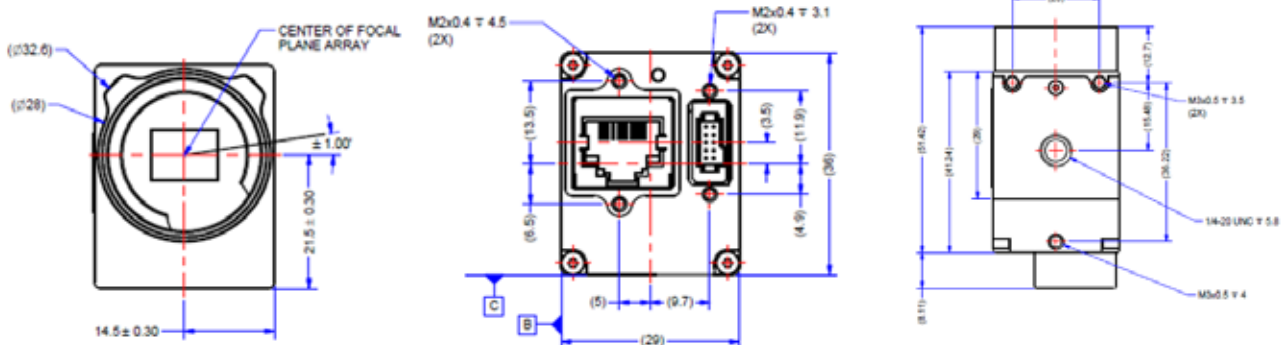
Features
» 29mm x 37mm x 59.53mm
» Gigabit Ethernet (GigE)
» General purpose opto-coupled input/output (external trigger,user, count, or timer driven triggering)
» Flexible general purpose Counter and Timer functions for internal/external controls
» Defective Pixel replacement
» Adaptive Image Enhancement
» **IEEE1588-2008 Precision Time Protocol synchronization capable**
» Built-in Pseudo-color for enhanced visualization
» Image metadata supported
» Application development with the freely available Sapera™ LT software libraries
» Internal mechanical shutter for remote recalibration
» Made in Canada

General Specifications

Resolution	640 (H) x 480 (V) pixels
Frame Rate	30Hz
Pixel Size	17 μm
NETD	≤65 mK; F/1.0, at 30 fps
Size	29 mm x 37 mm x 59 mm
Mass	66.7 g (without lens)
Operating Temp	-20°C to 50°C
I/O Options	GigE Vision

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

Dimensions

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SPECIFICATIONS[1]

FEATURE	CALIBIR DXM640		
Mechanical Interface			
Camera with M25 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)		
Electrical Interface			
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
Environmental Conditions			
Operating Temperature (Ambient)	-20° C to 50° C		
Operating Relative Humidity	maximum 80% non-condensing		
Storage Temperature	-40° C to +80° C		
Storage Relative Humidity	maximum 80% non-condensing		
Sensor Information			
Spectral Response	8-14 μm (LWIR)		
Pixel Pitch	17 μm		
Focal Plane Array	640 x 480 (VGA)		
Camera Information			
Internal mechanical shutter activation time	<100 ms to change from open/closed position		
Ambient Temperature (° C)	**Sensor**	**NETD**	**Scene Range (° C)**
25	Ulis Gen 2	<65 mK (expected)	-25 to 125

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