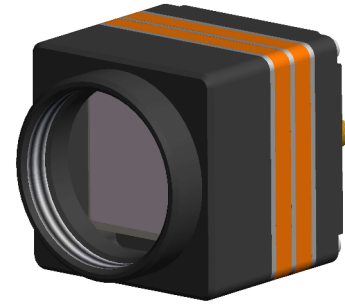


# ACUROS<sup>®</sup> 6 CQD<sup>®</sup> ESWIR Camera

Advance Information

## ACUROS6-ESWIR-CLINK-GEVK



### SWIR IMAGING MEETS HIGH RESOLUTION:

#### Introducing the World's First 6MP CQD ESWIR Camera

SWIR Vision Systems continues the tradition of lowest cost per megapixel with the ACUROS 6 eSWIR machine vision camera. The compact, lightweight design delivers a spectral response from Visible up to 2.1  $\mu\text{m}$  and is equipped with 7  $\mu\text{m}$  pixels featuring optically enhanced CQD technology for improved SNR performance. A single-stage TEC ensures stable performance over a wide range of operating conditions.

#### THE POWER OF 6 MP

Higher resolution is essential for imaging, capturing intricate details with wider fields of view. This additional data is vital to precision-driven industries like medical, manufacturing, scientific research and defense and aerospace. The ACUROS 6, high-resolution sensor, enables post-processing flexibility with lower loss of quality, empowering users, and algorithms to extract insights, spot defects, and enhance images for more meaningful results.

### SPECIFICATIONS

Table 1. SENSOR FEATURES

Parameter	Value/Description	
Type	ACUROS 6 CQD sensor	
Pixel Pitch	7 $\mu\text{m}$	
Format	2908 x 2040	
Array Size	20.36 mm x 14.28 mm	
Array Diagonal	24.87 mm	
Shutter	Global Shutter	
Max FPS (full frame)	100 Hz (8 bit), 50 Hz (12 bit)	
Min Exposure Time	10 $\mu\text{s}$	
Detector Technology	Colloidal quantum dot photodiode	
Detector Type	eSWIR	
Spectral Range	400–2100 nm	
QE	>15% @ 1900 nm typical	
Pixel Operability	>99.75% typical	
Dark Noise (at 30 °C)	TBD (e <sup>-</sup> /s)	
Dark Noise Doubling Temp	9 °C	
Analog Gain Modes	Low Gain	High Gain
Read Noise	125 e <sup>-</sup>	20 e <sup>-</sup>
Well-Depth	350 Ke <sup>-</sup>	52 Ke <sup>-</sup>
Dynamic Range	68 dB	63 dB
ADC Bit Depth	8-bit or 12-bit	

### ORDERING INFORMATION

Part Number
ACUROS6-ESWIR-CLINK-GEVK

### Features

- Compact Form Factor
- CameraLink Interface
- Auto Exposure
- Dynamic Non-Uniformity Correction (NUCs)
- GenICam Compliant
- TEC Thermal Stabilization (Uncooled)
- Spectral Range Covering 400 nm – 2100 nm

### Applications

- Machine Vision
- Silicon Inspection
- Laser Beam Profiling
- Automotive
- Surveillance
- Hyperspectral
- Chemical Sensors
- Agricultural
- Medical Imaging
- Thermography

This document contains information on a new product. Specifications and information herein are subject to change without notice.

# ACUROS6-ESWIR-CLINK-GEVK

**Table 2. CAMERA FEATURES**

Parameter	Value/Description
Trigger	External TTL via SMA or Internal Clk
Region of Interest (ROIC)	Yes (8 row increments)
ROI FPS Scaling	Yes. FPS up to 10 kHz for 2908 x 8 pixel ROI
Binning Arrays	Yes
Non-Uniformity Correction	2 pt
Auto Exposure Control	Yes

**Table 3. ENVIRONMENTAL & POWER SPECIFICATIONS**

Parameter	Value/Description
Sensor Temperature Stabilization	Single-stage TEC
Operating Case Temperature	-20 °C to +55 °C
Storage Temperature	-10 °C to +55 °C
Power Consumption	TBD
Power Supply Voltage	TBD

**Table 4. MECHANICAL SPECIFICATIONS**

Parameter	Value/Description
Dimensions Excluding Lens	5 x 5 x 8 cm <sup>3</sup>
Weight Excluding Lens	300 g estimated
Lens Mounts	C-mount, M42-C
Power Connector	8-pin M8 connector
Trigger Connector	SMA

**Table 5. SOFTWARE AND USER INTERFACE**

Parameter	Value/Description
Interface	CameraLink-Full

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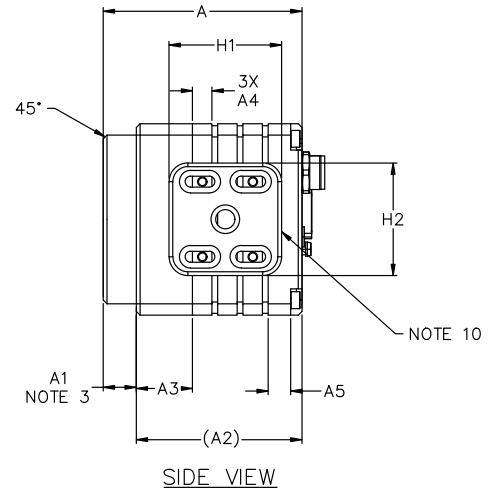
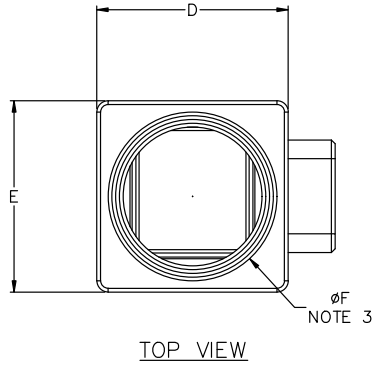
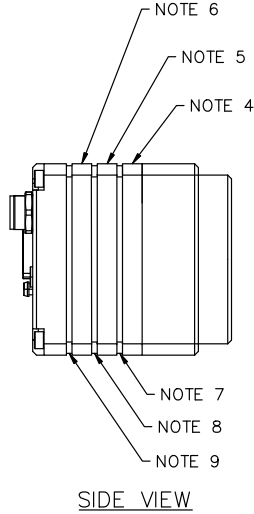
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## PACKAGE DIMENSIONS

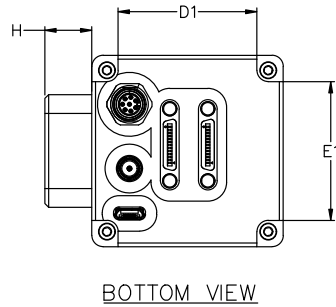
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CASE 810AJ  
ISSUE O

DATE 12 MAR 2025



### NOTES:

1. DIMENSIONING AND TOLERANCING AS PER ASME Y14.5M, 2018.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. M42 LENS ADAPTER.
4. ROIC HEAT SPREADER.
5. PROCESSOR HEAT SPREADER
6. IO HEAT SPREADER
7. IMAGE PCB
8. PROCESSOR PCB
9. IO PCB
10. 1/4"-20 MOUNT



MILLIMETERS			
DIM	MIN	NOM	MAX
A	52.872	52.972	53.072
A1	8.700	8.800	8.9000
A2	44.172 REF		
A3	14.900	15.000	15.100
A4	5.100	5.200	5.300
A5	5.900	6.000	6.100
D	50.900	51.000	51.1000
D1	36.900	37.000	37.100
E	50.900	51.000	51.100
E1	36.900	37.000	37.100
F	45.000 REF		
H	12.400	12.500	12.6000
H1	29.900	30.000	31.100
H2	29.900	30.000	31.100

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