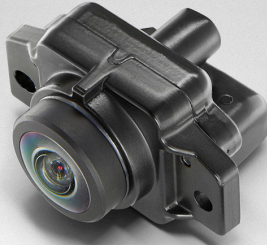


# DESIGNCORE®

## D3RCM-IMX390 RUGGED CAMERA MODULE



### IMX390 camera module for performance-critical embedded vision

## Ruggedized, fully-enclosed 2.1 MP FPD-Link™ III camera suits automotive and industrial applications

This Rugged Camera Module is designed for automotive and performance-critical industrial applications. It has superior thermal characteristics and was designed to withstand harsh environmental conditions.

The digital video stream, control data, and power are carried by coaxial cable between the camera module and vehicle/system electronic control unit (ECU). The lens and electronic components are housed in a rugged enclosure with integrated FAKRA connector for connection to the ECU wire harness.

### FEATURES

SONY® IMX390 image sensor  
DS90UB953 FPD-Link™ III  
serializer  
Very small size  
Ultra-lightweight  
(<10 g excluding lens)  
Excellent thermal management  
Perfect camera axis alignment

### APPLICATIONS

Automotive Driver Assistance  
Systems (ADAS)  
Mirror replacement  
Industrial autonomous  
vehicles  
Unattended surveillance  
Process automation  
Machine vision

#### DesignCore® Platforms supported:

DesignCore® platforms with Intel®, NVIDIA®, and Texas Instruments® processors and SoCs. Visit [d3engineering.com/store](http://d3engineering.com/store) for a complete list of supported platforms for this camera module. Customized processor solutions available.

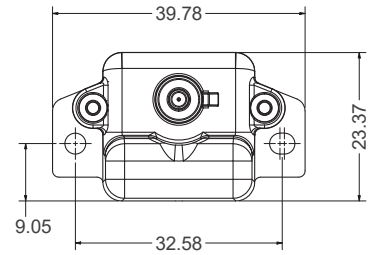
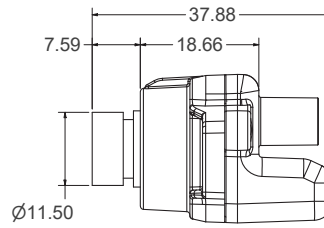
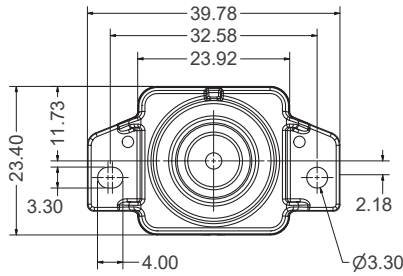
### SPECIFICATIONS

Sensor	SONY® IMX390
Optical Format	1/2.7 inch
Resolution	1920 × 1200
Pixel Size	3.0 × 3.0 μm
Data Output Format	10\12\20\24-bit RAW Normal and HDR Output Internal HDR Composition
Maximum Readout	10b(ADC) – 1920 × 1080 – RAW24 – 60 fps 12b(ADC) – 1920 × 1080 – RAW24 – 40 fps
Imager ISP	External
Serializer	FPD-Link™ III DS90UB953A
Device Comms Addresses	Serializer (DS90UB953): 0x18 (7b) Sensor (IMX390): 0x1A (7b)
Connector	FAKRA Straight Plug Connector Interface Code – Z
Operating Voltage	+5 V to +12 V (+12 V typical)
Power consumption	<1.5 W at maximum data rate
Operating temperature	–40°C to 85°C
Storage temperature	–40°C to 105°C
Additional Features	External frame synchronization

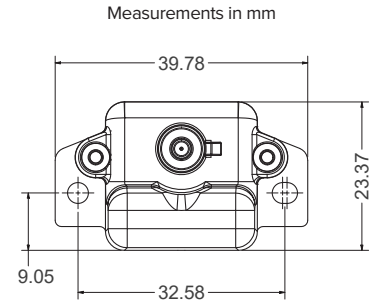
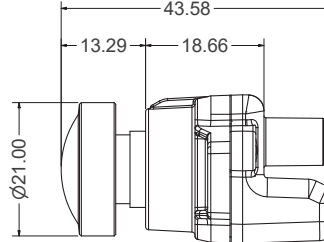
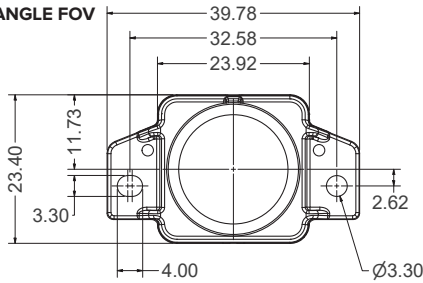
### LENS SPECIFICATIONS

Lens	Sunex DSL239	Sunex DSL958
Field of View (FOV)	192° horizontal	70° horizontal
Lens Aperture (F#)	2.4	2.8
Focal Length	1.83 mm	4.6 mm

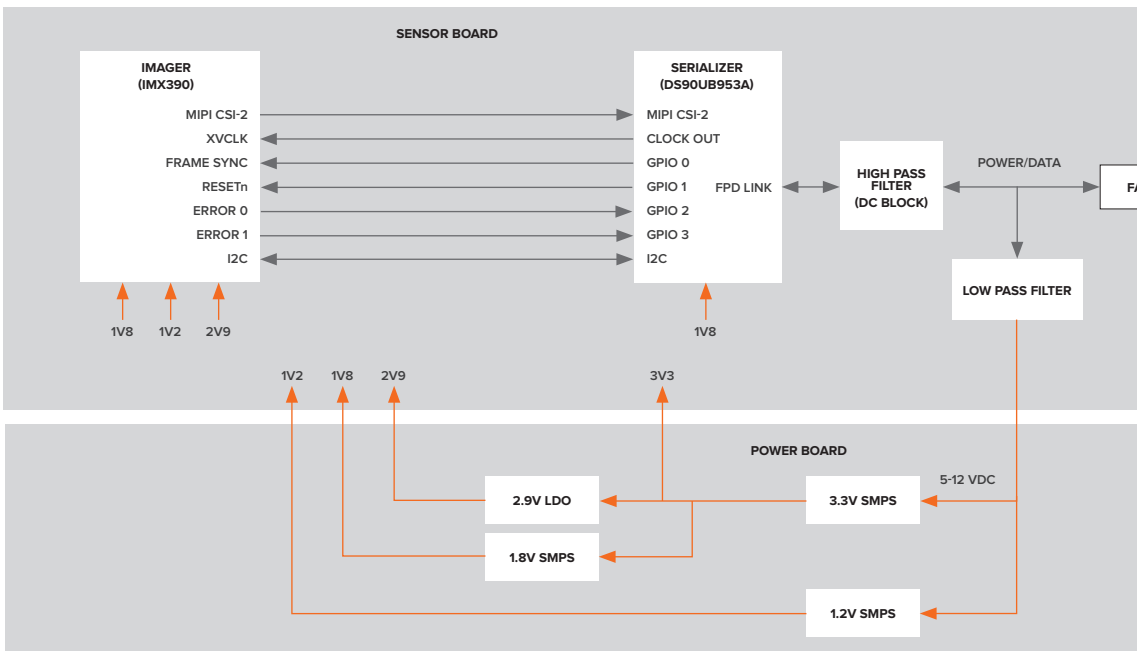
**NARROW ANGLE FOV**



**WIDE ANGLE FOV**



3D model available upon request



**NEXT STEPS**

Purchase samples online and contact us for volume pricing. We can support integration of D3 Camera Modules into your end product with services including custom ISP tuning, software drivers, and verification support. We can also help you speed embedded vision system development with our proven DesignCore™ vision processor platforms and full-cycle embedded product development services.

**ACCELERATE TIME TO MARKET**

Our expertise in imaging system design will help you get to market faster, while reducing the risks and costs of new product development.

**ORDERING INFORMATION**

SKU 1000843 | 192° FOV (wide angle)  
 SKU 1000985 | 70° FOV (narrow angle)  
 Buy online at <https://d3engineering.com/store>

CALL: 585-429-1550  
 EMAIL: [sales@D3Engineering.com](mailto:sales@D3Engineering.com)  
 VISIT: [D3Engineering.com](https://D3Engineering.com)