

DESIGNCORE™

D3RCM-OV10640-953 RUGGED CAMERA MODULE



VALIDATED
FOR PRODUCTION

Fully-validated OV10640 camera module, production-ready for embedded vision applications

Ruggedized, fully-enclosed 1.3 MP FPD-Link™ III camera suits automotive and industrial production needs

This Rugged Camera Module has been fully validated for thermal, electrical, and mechanical performance in 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

OmniVision® OV10640 image sensor
DS90UB953 FPD-Link™ III serializer
Very small size
Ultra-lightweight (<10 g excluding lens)
Excellent thermal management
Perfect camera axis alignment
Power over coax (PoC) with multiplexed video stream and control channel
Internal MCU for camera initialization

APPLICATIONS

Automotive Driver Assistance Systems (ADAS)
Surround View and Backup Camera Monitoring Systems
Mirror replacement, Blindspot Monitoring
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 for a complete list of supported platforms for this camera module. Customized processor solutions available.

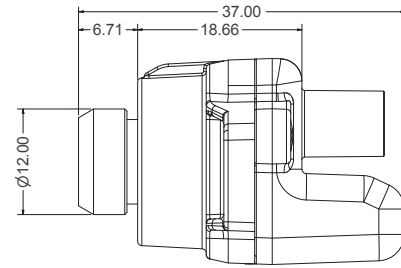
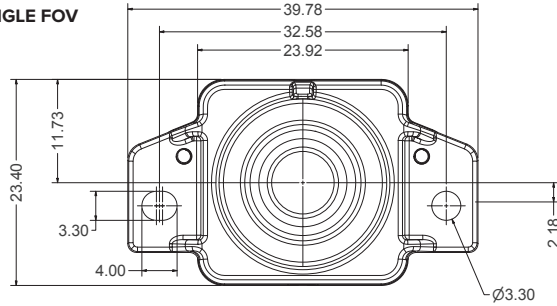
SPECIFICATIONS

Sensor	OmniVision® OV10640
Optical Format	1/2.56 inch
Resolution	1280 × 1080 (1.3 MP)
Pixel Size	4.2 × 4.2 μm
Data Output Format	12\20-bit compressed\combined RAW formats
Maximum Readout	20b combined HDR – 1280 × 1080 – 60 fps 3x12b unprocessed (L, S, VS) – 1280 × 1080 – 60 fps 12b combined tone mapped – 1280 × 1080 – 60 fps
Imager ISP	External
Serializer	FPD-Link™ III DS90UB953A
Device Comms Addresses	Serializer (DS90UB953): 0x18 (7b) Sensor (OV10640): 0x32 (7b)
Connector	FAKRA Straight Plug Connector Interface Code – Z
Operating Voltage	+5 V to +12 V (+5 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

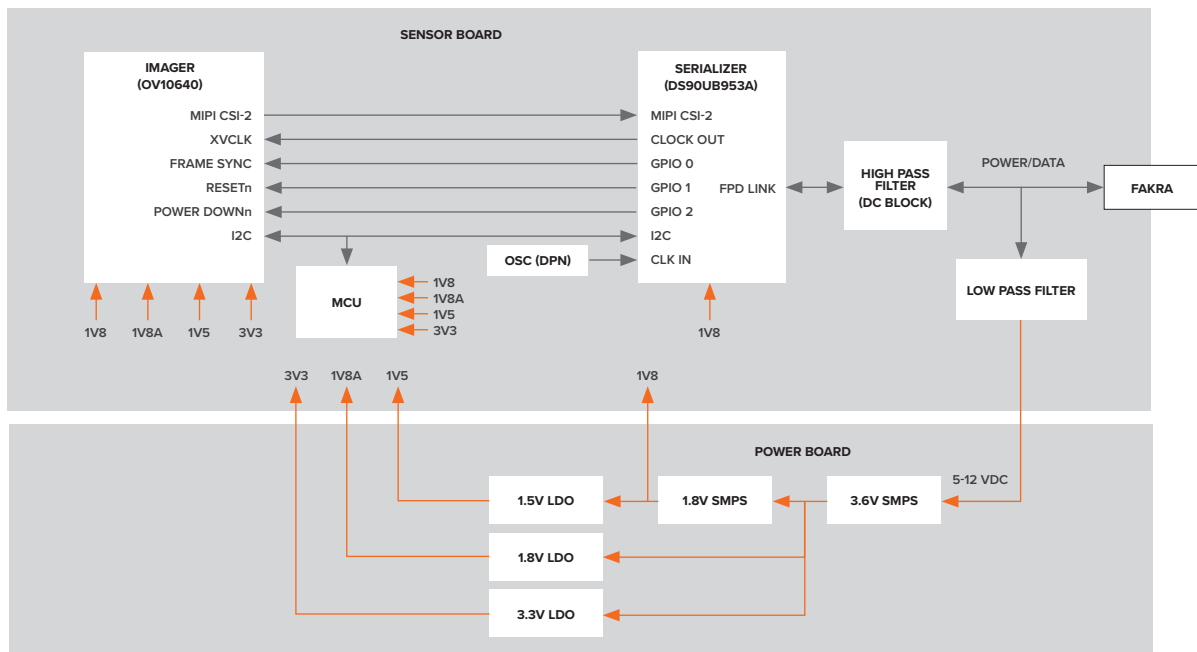
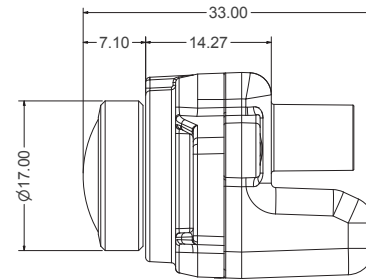
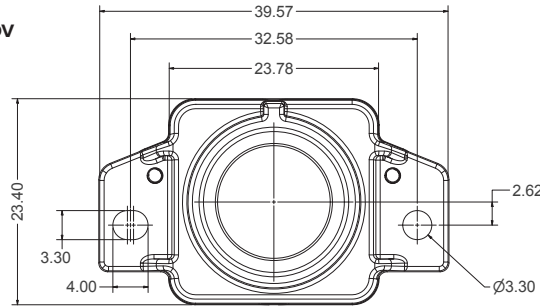
Lens	Sunex DSL267	Sunny 4083
Field of View (FOV)	194.6° horizontal	52° horizontal
Lens Aperture (F#)	2.2	1.6
Focal Length	1.39 mm	6.14 mm

NARROW ANGLE FOV



Measurements in mm

WIDE ANGLE FOV



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 1000581 | 194.6° FOV (wide angle)
 SKU 1000508 | 52° FOV (narrow angle)
 Buy online at <https://d3engineering.com/store>

CALL: 585-429-1550

EMAIL: sales@D3Engineering.com

VISIT: D3Engineering.com