열화상 GMSL 카메라
Des640 F60 GM



Expanding the Vision of Autonomous Driving

GMSL-Based VGA Thermal Imaging Camera Optimized for ADAS

Advanced automotive vision technology for reliable forward detection in darkness and challenging weather conditions.

High-Speed Automotive Data Transmission – GMSL SerDes Solution

Featuring a GMSL interface, the camera enables high-speed, low-latency transmission of raw thermal image data to central ADAS domain controllers, including platforms based on NVIDIA DRIVE and NXP processors, with compatible receiver hardware.

Supporting coaxial cable connections of up to 15 meters or more, depending on system configuration, the Power over Coaxial (PoC) technology enables simultaneous power delivery and video data transmission through a single cable, significantly simplifying vehicle wiring.

Equipped with a high-resolution VGA thermal sensor featuring a 12 µm pixel pitch, the camera enhances the detection of pedestrians, animals, and other objects in challenging environments, including complete darkness, fog, snow, and headlight glare, where conventional visible-light cameras may have limitations.

APPLICATIONS

ADAS & Autonomous Driving

Enhances nighttime perception and forward object detection, supporting advanced driver assistance systems and autonomous driving applications.

Autonomous Robots & AGV/AMR

Enables thermal perception for autonomous mobile robots operating in warehouses, logistics centers, and complex outdoor environments. Multiple cameras can be integrated to support 360-degree situational awareness, day and night.

Smart Street Lighting & Intelligent Traffic Systems (C-ITS)

Ideal for integration into smart streetlights and intersections, enabling real-time thermal monitoring of vehicle and pedestrian movements. GMSL connectivity supports low-latency data transmission to compatible local processing units for intelligent traffic management and smart city applications.

SPECIFICATION

	DEs640 F60 GM
Sensor Information	
Sensor	Lynred ATTO640
Simplified image processing	TECless, Shutterless
Technology	Vox mocrobolometer
Spectral Response	8 - 14µm(LWIR)
Pixel Pitch	12µm
Focal Plane Array	640 x 480
NETD	<40mK (f/1, 300K, 30Hz)
Interfaces	
Application	ADAS(Advanced Driver Assistance Systems)
Protocol	**GMSL1(1.7Gbps)**
Frame rate	60fps
Radiometric	
Type	Fully radiometric for all pixels
Measurement mode	Low Temperature : -15 ~ 120°C
	High Temperature : 0 ~ 500°C
Temperature Accuracy	±1°C or 1% at 25°C of ambient temperature
	±2°C or 2% at 15~30°C of ambient temperature
Electrical Interface	
Input Voltage	DC12V or PoE
Power Consumption	<5W
Environmental Conditions	
Operation Temperature	-10°C ~ 40°C
Operation Relative Humidity	maximum 80% non-condensing
Storge Temperature	-40°C ~ 85°C
Storage Relative Humidity	maximum 80% non-condensing
Mechanical Interface	
Size (W x H x D)	56 x 56 x 55mm
Weight	233g (without Lens)
Power connector	6-pin threaded Hirose Mating connector part# HR10A-7R-6PB(73)

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