

WONWOO



Global Shutter Products

Next Generation of Optical Modules for Industrial & Embedded Vision.

WONWOO Engineering Co., Ltd.

81, Magokjungang 6-ro, Gangseo-gu, Seoul, Korea | www.wonwoo.com | sales@wonwoo.com | T. 82-2-3665-3200

Company Intro

With over 30 years of experience in industrial image solutions, Wonwoo Engineering boasts global competitiveness in high-performance optical design, precision lens manufacturing and image sensor integration technology. Our extensive expertise in optical systems and image processing allows us to develop and supply high-resolution, high-reliability camera modules tailored to diverse customer needs.

Key Expertise



Optimized Optical Design Capabilities

- Possesses a wide range of optical design and simulation capabilities for high magnification zoom lens and low-distortion optical lens.
- Our proprietary lens offers clear, distortion-free images in low-light and high-speed environments.



Image Sensor Integration Technology

- Development of multiple modules based on Global Shutter CMOS sensors.
- Experience in optimizing designs in partnership with global image sensor manufacturers like Sony and Onsemi.



Precision Automated Assembly and Quality Control

- Precision assembly technology for AF/Zoom drive mechanisms.
- Building a quality control automation system by modules.



Optimized Video System for Industrial Sites

- Providing a field-based video solution that require a high-performance by smart factory, robot vision, drone, security and other applications.
- Experience in designing special environments for EMI/RFI shielding and dust & water resistance.



Customized Development and Technical Support

- Providing a high degree of customization support to satisfy customer needs. (Lens combination, sensor change, interface customization, etc.)
- Engineer technical support for a fast development environment.

Global Shutter Product Overview

Shutter Type Comparison

	Global Shutter	Rolling Shutter
Operation Type	· All pixels simultaneously exposed and read	· Pixels sequentially exposed and read (by line)
Pros	<ul style="list-style-type: none"> · No motion distortion · Ideal for capturing fast-moving objects · Precision measurement and industrial use 	<ul style="list-style-type: none"> · Low design and manufacturing cost · Low power consumption results in less heat generation and battery efficiency · Beneficial for high resolution sensor design
Cons	<ul style="list-style-type: none"> · High manufacturing costs · Circuit complexity increase · Relatively high power consumption 	<ul style="list-style-type: none"> · Jello Effect occurs on fast moving objects · Poor distortion and motion capture accuracy

Application Field



Traffic & Transportation System

Road Monitoring, Intelligent Transportation System



Inspection Equipment

Line Vision, Production Monitoring



Drone & Robot

Aerial Monitoring, Scout, Unmanned Automation



Security Camera

Port, Airport, Borderline Monitoring

Product Key Feature

- Global Shutter : Motion distortion-free video implementation.
- AF(Auto Focus) High Magnification Zoom : Fast and clear long-distance observation.
- Wide Product Range : Board-type, 10x, 30x, 36x, 40x
- Extensive Compatibility : Suitable for industrial, security, drone and vehicles.



	DM-G15-42	MC-G105	MC-G305	MC-G365	MM-G405
Zoom Ratio	-	10x	30x	36x	40x
Resolution	Full HD (1920x1080)	Full HD (1920x1080)	Full HD (1920x1080)	Full HD (1920x1080)	Full HD (1920x1080)
Sensor	SONY IMX265	SONY IMX900	SONY IMX900	SONY IMX392	SONY IMX900
Shutter	Global	Global	Global	Global	Global
Video Output Interface	BT.1120, SDI	LVDS, CVBS	BT.1120, LVDS, CVBS	LVDS, SDI, CVBS	LVDS, CVBS
Weight	19.5g	165g	278g	416g	355g
Power Consumption	350mA	420mA	550mA	550mA	550mA
Dimension (WxHxD, mm)	42x42x14	43.6x47x66	50x60x93	55.6x64x124	54X64x101