



**GimaGO**  
easy

*Digital vision made easy.*

GIGABIT ETHERNET CCD CAMERAS

**net@**  
NEW ELECTRONIC TECHNOLOGY

## GimaGO easy – DIGITAL VISION MADE EASY

NET's easy GigE vision camera line.

### GimaGO easy - COMPACT GIGE/CCD SERIES

NET's basic GigE camera line GimaGO easy is designed for users who aim at digital image capturing with a solid, easy-to-use and low budget camera. For this, its hardware and software offer maximum integration capabilities due to full GigE Vision and GenIcam compliancy. The camera meets the expectations of a wide range of industrial applications such as factory automation, quality control, inspection, code and symbol recognition,

and surveillance. The camera is offered with a small metal housing perfectly suitable for industrial environments. It is compliant with the GigE Vision standard for data transfer of maximum 1 Gbps. Power over Ethernet (PoE) and both video output and camera control are performed via GigE interface. Its monochrome and color CCD image sensors deliver high speed frame rates and resolutions up to SXGA. GimaGO easy comes with

NET's extensive Software Development Kit (SDK) SynView. It features full compliancy with GigE Vision, GenTL and GenIcam standards and enables users to access the camera quickly. Users can execute functions for fast and reliable results. SynView supports all image processing libraries operating as GenTL consumer.



# TECHNICAL DATA – GIGE CCD CAMERAS

## PRODUCT OVERVIEW

The GimaGO easy cameras are offered with color and monochrome CCD image sensors from SONY with resolutions from 0.35 to 1.3 megapixel. These sensors allow high speed frame rates at full resolution. Its sensors comprise global shutter for fast moving objects with excellent signal quality. GimaGO easy features partial scan for regions

of interest and higher achievable frame rates. The cameras possess selected control functions like jumbo frames for optimal data transfer, free running mode and trigger mode function with fixed or pulse width controlled exposure time for individually defined image capture. Auto exposure mode and auto gain control save manual adjustments

of lens and camera. The robust and small metal housing qualifies for industrial applications. GimaGO easy disposes of the common lens mount type C-mount. RJ45 with screw locking, the standard Gigabit Ethernet connector in industrial vision, allows both image transfer and power supply (Power over Ethernet) over 100 meters.

MONOCHROME / COLOR	GE126B	GE136B	GE323B	GE422B	GE422C
Resolution (H x V) [px]	659 x 494 / VGA	659 x 494 / VGA	1034 x 779 / XGA	1296 x 966 / SXGA	
Sensor	CCD		CCD	CCD	
Image sensor	ICX424AL	ICX414AL	ICX204AL	ICX445ALA	ICX445AKA
Sensor size	1/3"	1/2"	1/3"	1/3"	
Pixel size [µm]	7.40 x 7.40	9.90 x 9.90	4.65 x 4.65	3.75 x 3.75	
Frame rate [fps]	125	125	40	30	
Shutter	global				
Shutter speed	10 µs - 16 s	10 µs - 16 s	30 µs - 16 s	30 µs - 16 s	
Data path	for b/w model: 8 bit or 10 bit for color model: 8 bit or 12 bit Raw RGB + YUV422/YUV411				
Binning	for b/w model: 2 x 2				
Partial scan	ROI				
Trigger	hardware (exposure time: fixed or pulse width controlled), software, free run				
Digital output	yes				
Gain [dB]	0 - 18				
Lens	C-mount				
Scanning system	progressive scan				
Control functions	auto exposure mode (AE), auto gain control (AGC), selectable packet size (jumbo frame), packet delay, blacklevel, gamma for color: white balance, user defined LUT				
Interface	RJ45: Gigabit Ethernet according to GigE vision standard / 1Gbps / IEEE802.3ab conformity, 6 pin: 12 V +/- 10%				
Operating temperature [°C]	0 to +40				
Dimension (WxHxD) [mm]	29 x 29 x 40				
Power consumption [W]	Power over Ethernet (IEEE802.3af conformity): max. 3.8, DC 12 V: max. 2.9				
Weight [g]	53				
Regulations	CE, FCC, RoHS, Chinese RoHS				

# APPLICATION & SOFTWARE

Easy integration – Full compliancy.

## CUSTOMER SYSTEM INTEGRATION

The integration of GimaGO easy cameras into customer applications is as easy as plug and play. For this, customers apply their pre-installed GigE Vision and GenIcam standard compliant software with filter drivers. The offered cameras are a perfect and cost-effective substitute for existing industrial applications based on analog 1/2" and 1/3" CCD cameras. Hence the need of optical adaptations is marginal in existing customer systems.

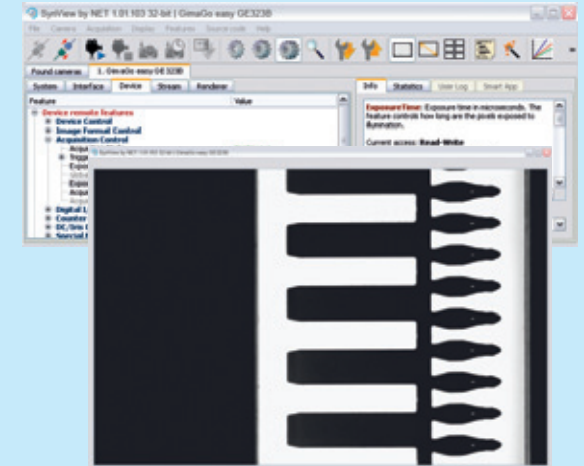
## SOFTWARE DEVELOPMENT KIT (SDK)

GimaGO easy features full compliancy to GenIcam and GenTL standards. The included SDK, SynView, enables an easy integration into existing customer systems. It runs under Windows XP (32/64 bit) or later, Windows Embedded, and Linux. SynView supports the most common programming languages C, C++ and the framework. NET class library.

The powerful SDK comes with various functionalities for the control of camera hardware, i.e. the image capture (I/O triggering) and memory management. SynView includes a viewer. It facilitates the setting and evaluation of jpg, bmp, and tiff image data by means of different functionalities, like preview, histogram analysis, line profiles, storage, and even the generation of code examples.

## 3<sup>RD</sup> PARTY SOFTWARE-APPLICATION

Due to GenTL standard compatibility GimaGO easy is quickly accessible via 3rd party software. Drivers are available for most common image processing libraries, namely Adaptive Vision Studio, Halcon, ActivisionTools, Common Vision Blox, MATLAB, and OpenCV as well as virtually any other GenTL compatible library. Hence, the integration of GimaGO easy into existing customer systems is easy to manage.



SynView – quick image setting and evaluation

### NET New Electronic Technology GmbH

Lerchenberg 7  
86923 Finning, Germany  
Tel: +49 8806 9234 0  
Fax: +49 8806 9234 77  
info@net-gmbh.com  
www.net-gmbh.com

### NET Italia S.r.l.

Via Carlo Pisacane, 9  
25128 Brescia, Italy  
Tel: +39 030 5237 163  
Fax: +39 030 5033 293  
info@net-italia.it  
www.net-italia.it

### NET France

a branch of NET New  
Electronic Technology GmbH  
Tel: +33 450 45 22 92  
Fax: +49 8806 9234 77  
info@net-france-sas.fr  
www.net-france-sas.fr

### NET USA, Inc.

3037 45<sup>th</sup> Street  
Highland IN 46322, USA  
Tel: +1 219 934 9042  
Fax: +1 219 934 9047  
info@net-usa-inc.com  
www.net-usa-inc.com

### NET Japan Co., Ltd.

2F Shin-Yokohama 214 Bldg.  
2-14-2 Shin-Yokohama, Kohoku-ku,  
Yokohama-shi, 222-0033, Japan  
Tel: +81 45 478 1020  
Fax: +81 45 476 2423  
info@net-japan.com  
www.net-japan.com

**NET - We simplify complicated technologies by making them easier to use.**

Our strengths are the close understanding of the industrial and medical image processing field and the in-depth application knowledge which we have acquired over many years. Camera technology, CCD and CMOS technology, FPGA programming, hardware and software design are our core skills which we can tap within the company. Our innovative portfolio is supplemented by a wide range of standard and customized lenses and light systems.