MAGIC Cameras

Enhanced Vision with Wide Dynamic Range Technology

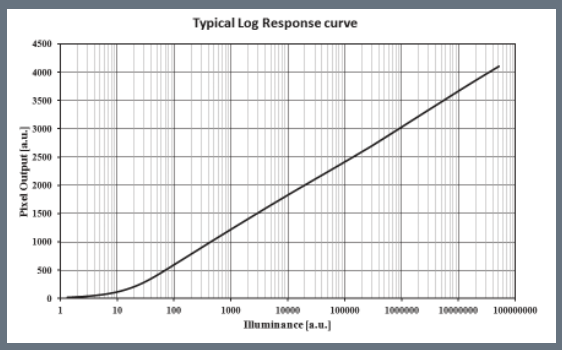
www.new-imaging-technologies.com

Improve your knowledge through vision

The MAGIC cameras from NIT integrate our unique patented CMOS pixel technology sensors offering intrinsic Dynamic Range >140dB. Covering 0.4 to 1µm spectral band, our CMOS products are proposed in B&W or color digital cameras (USB2.0, USB3.0, Camlink, GIGE) with proprietary software or as custom solution. Featuring robust aluminum housing and offering optimum size, weight and power consumption, NIT cameras are the ideal solution for imaging or computer vision applications where users expect no saturation and immunity to reflection in high contrast and rapidly changing illumination scenes.

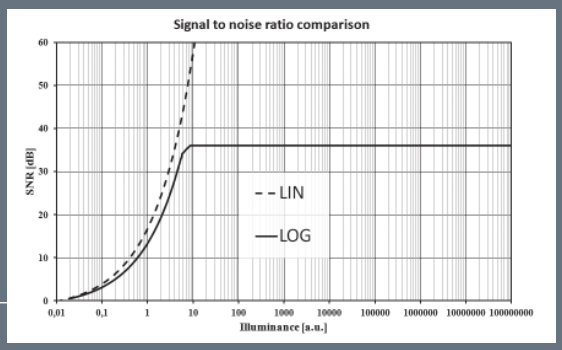
Wide Dynamic Range CMOS vision

Extremely wide dynamic range



Instantaneous adaptation to strong illumination changes

NIT sensors offer constant RMS noise over 7 decades



Typical applications

Welding

Automotive & Transportation

NIT sensor (NSC1005)

Classic linear Multishot CMOS & ISP

Stereo vision

Process Control

Further applications

Laser, High T°C Thermography, Security and Defence, Medical ...

Main characteristics

0.4 to 1µm sensitivity
140 dB dynamic (Logarithmic response)
Resolution: 14 bit/ except NSC1602 and NSC1701: 12 bits
Trigger IN/OUT mode (LVTTL)
Mount Camera&GIGE: CS/C Monoboard: S(M12)
Vibration and shock tested only for Magic Camera

	Camera	GIGE	Monoboard
Power consumption	1.5W	4.7W	2W
Dimension (in mm)	48.6x48.6x32.6	46.6x46.6x42.2	30x41.5x1.6
Weight	125g	175g	20g
Temperature range	[0°c ; 65°c]	[-20°c ; 71°c]	[0°c ; 65°c]

Magic Camera

Plug-and-play, Magic cameras integrate our patented sensors and are delivered with MagicVISION software interface. MagicVISION integrates advanced image processing: zoom, enhancement, Automaic Gain Control.

Model	Sensor	Interface	Frame rate
MC0902-PXY*	NSC0902 768x576, 5.6µm Rolling	USB2.0	Up to 40Hz
		CameraLink	Up to 78Hz
MC1003-1XY*	NSC1003 1280x1024, 6.8µm Rolling/Global/Diff	USB3.0	Up to 59Hz
		CameraLink	Up to 37Hz
MC1005-HXY*	NSC1005 1280x720, 5.6µm Rolling	USB3.0	Up to 50Hz
		CameraLink	Up to 53Hz
MC1104-PXB*	NSC1104 768x576, 15µm Rolling	USB2.0	Up to 40Hz
		CameraLink	Up to 53Hz
MC1105-1XB*	NSC1105 1280x1024,10.6µm Rolling	USB3.0	Up to 50Hz
		CameraLink	Up to 53Hz
MC1602-PVY*	NSC1602 640x480, 7.5µm Rolling/Global/Diff	USB3.0	Up to 150Hz
MC1701-1XY*	NSC1701 1280x1024, 6.8µm Rolling/Global/Diff	USB3.0	Up to 60Hz
		CameraLink	Up to 50Hz

*X= U for USB2.0, V for USB3.0, C=Cameralink
Y= B for Monochrome, C for color

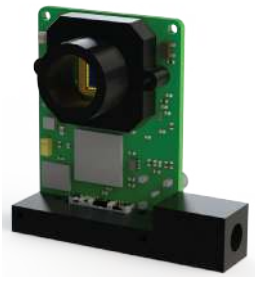
Magic Gige

Plug-and-play Magic Gigebit cameras or modules integrate our patented sensors and are compliant with GigeVision standard. Advanced image processing is directly embedded with NIT on board features.

Model	Sensor	Interface	Frame rate
MC1104-PGB*	NSC1104 768x576, 15µm Rolling	GIGE	Up to 100Hz
MC1003-1GB* MC1003-1GC*	NSC1003 1280x1024, 6.8µm Rolling/Global/Diff	GIGE	58Hz Up to 28Hz

Magic Monoboard

Plug-and-play Magic Monoboard module integrates our patented sensors NSC1602. MAGICVISION integrates advanced image processing: enhancement, Automaic Gain Control.



Model	Sensor	Interface	Frame rate
MB1602-PVB*	NSC1602 640x480, 7.5µm Rolling/Global/Diff	USB3.0	150Hz

Custom Design

NIT can provide a whole range of custom solutions to fulfill any customer requirements at different integration levels :
NIT cameras are also available on modules (please contact NIT for more information).

About New Imaging Technologies

New Imaging Technologies is a French company pioneer in Wide Dynamic Range solutions. With over 15 years of academic research and our patented **MAGIC™** pixel technology, we master all the steps from the sensor design to complete camera engineering.

Our core team clusters experienced CMOS designers, all recognized experts in their fields, with a multi- disciplinary group of optical, mechanical and electronic engineers.

With sales partners in over 20 countries we address most efficiently any customer requests around the globe.

NIT offers a complete portfolio of cameras and detectors embracing Visible, Intensified (I-CMOS) and SWIR technology. NIT serves various markets such as machine vision, instrumentation, night vision, biometrics…

NIT also proposes flexible solutions and custom designs to best fit your specific requirements.

For more information, write to
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ISO 9001
BUREAU VERITAS
Certification

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