Pixelink®
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PL-X9512

CMOS | SONY IMX253 | GLOBAL SHUTTER

The PL-X family of high performance machine vision cameras with 10 Gigabit Ethernet offers speed, accuracy and reliability in a quick and easy set-up. Its 10GBase-T interface and packet resend capability provide high quality, reliable image transfer at cable lengths of over 50m on CAT6A. Additional features include optional Power over Ethernet (PoE) and IEEE1588 clock synchronization.

The PL-X9512 camera, with the Sony IMX253 Pregius sensor provides high bandwidth, high quality 12MP images over an M12 connector.

Available Q3 2020

KEY FEATURES

12.3MP
CMOS

64.6
FRAMES Per Sec.

3.45µm

17.6mm

Sensor Size
1.1"

12 BIT

COLOR

MONO

10GBASE-T

GiGE VISION

TYPICAL APPLICATIONS

Automated Inspection
Sports Analysis
VR and AR Applications
Multi-Camera Synchronization
Broadcasting
3D Mapping
Research

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TECHNICAL SPECIFICATIONS

SENSOR

Sensor	Sony IMX253
Type	CMOS Global Shutter
Resolution	12.3 MP (4096 x 3000)
Pixel Pitch	3.45 µm x 3.45 µm
Active Area	17.6 mm diagonal

PERFORMANCE SPECIFICATIONS

FPN	< 0.03% of signal
PRNU	< 0.4% of signal
Dynamic Range	70 dB
Bit Depth	8 or 12-bit
Color Data Formats	Bayer 8, Bayer 12 Packed, Bayer 16 & YUV422 RGB 8, BGR 8
Mono Data Formats	Mono 8, Mono 12 Packed & Mono 16

FRAME RATES

Resolution	Free Running
4096 x 3000	64.6 fps

Frame rates will vary based on host system and configuration
*Above calculations based on fixed frame rate mode

INTERFACES

Board Level Trigger Connector	8-pin Molex 1.25mm pitch
Enclosed Trigger Connector	Hirose M12 (12-pin)
Trigger	Software and hardware
Board Level Trigger Input	1 input, 3.3V (with internal pullup resistor)
Enclosed Trigger Input	1 optically Isolated, 5-12V DC at 4-11 mA
Board Level GPO/Strobe	2 outputs, 3.3V
Enclosed GPO/Strobe	1 optically isolated, 5-12V DC at 4-11 mA, 2 outputs, 3.3V
Board Level GPI Input	1 input, 3.3V
Enclosed GPI Input	1 optically isolated, 5-12V DC at 4-11 mA
10GBase-T Connector	M12 X-coded (8-pin)

MECHANICALS

Dimensions (mm)	113 x 57 x 57
Weight (g)	TBD
Mounting	C-Mount

POWER REQUIREMENT

Voltage Required	5V (from USB Type-C connector) 48V (802.3bt PoE)

PIN NAME & FUNCTION

1	3.3V power output
2	TRIGGER 3.3V HCMOS input
3	Ground
4	GPO1, 3.3V HCMOS output
5	GPO2, 3.3V HCMOS output
6	Clock, 3.3V (I2C access for OEMs)
7	Data, 3.3V (I2C access for OEMs)
8	GPI, 3.3V HCMOS input

Board connector: Molex (8-pin, 1.25mm pitch, vertical); Cable receptacle: Molex 51021-0800; Cable crimp terminals: Molex 50079-8100

ENCLOSED GPIO INTERFACE PIN NAME & DESCRIPTION

1	5.0V output
2	TRIGGER + (optically isolated)
3	TRIGGER - (optically isolated)
4	Data, 3.3V (I2C access for OEMs)
5	GPO1 + (optically isolated)
6	GPO1 - (optically isolated)
7	GPO1, 3.3V HCMOS output
8	GPO2, 3.3V HCMOS output
9	Ground
10	GPI+ (optically isolated)
11	GPI- (optically isolated)
12	Clock, 3.3V (I2C access for OEMs)

ENVIRONMENTAL & REGULATORY

Compliance	FCC, CE & RoHS
Shock & Vibration	300 G & 20 G (10Hz - 2kHz)
Operating Temperature	0°C to 50°C
Storage Temperature	-45°C to 85°C

SOFTWARE

Pixelink Capture	Control & operate multi-camera
Pixelink SDK	Software Development Kit

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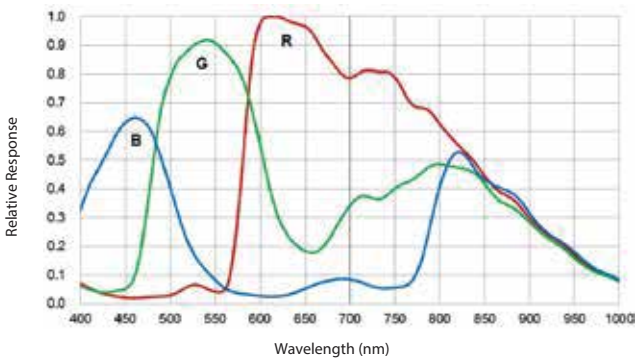
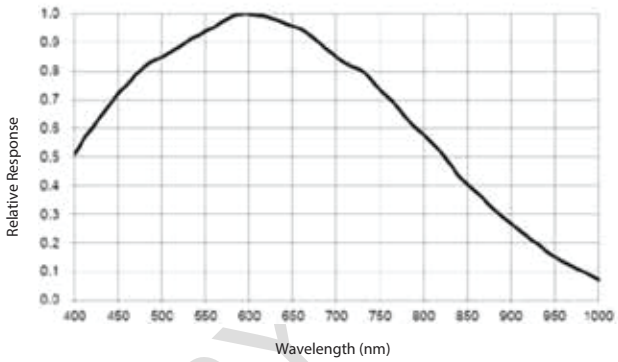
RESPONSIVITY CURVE - COLOR



RESPONSIVITY CURVE - MONO



PIXELINK'S INDUSTRY LEADING SOFTWARE

PIXELINK CAPTURE

Pixelink Capture is powerful multi-camera software application designed to configure "n" numbers of cameras and stream "n" number of cameras simultaneously in real-time high-quality video viewed in a multi-window environment. Pixelink Capture offers options for complex image enhancements such as; exposure control, filtering, frame-by-frame property changes in addition to multi-camera application testing and configuration.

Pixelink Capture also provides features to measure supporting; point, line, circle, rectangle, polyline and polygon measurements while determining pixel location. After creating spatial calibration, the user can then review and adjust before exporting the findings to an Excel spreadsheet for further analysis. Pixelink Capture also has integrated lens control (zoom & focus) for Navitar motorized lenses and accurate autofocus options for Navitar motorized fine focus mechanisms.

PIXELINK SDK

Providing full control of all camera functions, the Pixelink Software Developers Kit (SDK) is the software package of choice for developers and system integrators who are integrating Pixelink cameras into their applications. The Pixelink SDK provides access to the full Pixelink Application Programming Interface (API) and provides sample applications, wrappers for many 3rd party controls, such as LabVIEW, along with full documentation.

The Pixelink SDK is compatible with Microsoft Windows and popular Linux platforms. When using the Pixelink SDK, developers can integrate Pixelink cameras into their custom applications with ease.

Visit pixelink.com for more detailed information.

AVAILABLE CONFIGURATIONS

PL-X9512CG-BL
PL-X9512CG-T

PL-X9512MG-BL
PL-X9512MG-T

Color Space
C = Color
M = Mono
NIR = Near Infrared

Interface
G = 10 GigE

Housing
BL = Board Level
T = Trigger

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