

Pixelink®

A NANITAR COMPANY

PL-X9512

CMOS | 10GigE | 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. The 10GBASE-T interface and packet resend capability provide high quality, reliable image transfer at cable lengths of up to 100m on CAT6A. Additional features include Power over Ethernet (PoE), Trigger over Ethernet (ToE) and IEEE1588 clock synchronization (PTP).



KEY FEATURES

12 MP
CMOS

65
FRAMES
Per Sec

3.45 μ m

17.6 mm

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

Pixelink®
A NANITAR COMPANY

1.833.247.1211 (North America)
+1.613.247.1211 (International)

www.pixelink.com

SENSOR	
Sensor	Sony IMX253
Type	CMOS Global Shutter
Resolution	12 MP (4096 x 3000)
Pixel Pitch	3.45µm x 3.45µm
Active Area	17.6 mm diagonal

PERFORMANCE SPECIFICATIONS	
FPN	<0.03% of signal
PRNU	<0.7% of signal
Dynamic Range	70 dB
Bit Depth	12 bit
Color Data Formats	Bayer 8, Bayer 12 Packed, Bayer 16, YUV422, RGB 24, BGR 24
Mono Data Formats	Mono 8, Mono 12 Packed & Mono 16

FRAME RATES	
Effective Resolution	Free Running
4096 x 3000	Up to 65 fps
Frame rate will vary based on host system and configuration. * Above calculations based on fixed frame rate mode.	

INTERFACES	
Board Level Trigger Connector	8-pin Molex 1.25 mm 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)	125 x 57 x 57
Weight (g)	560
Mounting	C-Mount

POWER REQUIREMENTS	
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) 3.3V HCMOS output
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 to 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

COMPUTER & OPERATING SYSTEM	
Processor	Intel Core i5 or better ARMv7 (32-bit) or ARMv8 (64-bit) - ARMv8 recommended
Memory	8GB RAM or more - 16 GB multi-channel DDR4 recommended
Hard Drive Space	200MB - SSD recommended
BUS	PCIe 3.0 (or better) with a slot supporting x8 transfers
Operating System	Windows 7/8/10 - Windows 10 recommended Ubuntu 16.04/18.04/20.04

