

SONY



Diagonal 15.8 mm (Type 1/1") SPAD Depth Sensor with Signal-Amplifying Pixels

Preliminary

IMX479

Application Note

Shenzhen Sunnywale Inc ; www.sunnywale.com

Sony Semiconductor Solutions Corporation

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Glossary

This section describes the terms used in this document.

Term	Description
LiDAR	Light Detection and Ranging is a technology that measures the distance to an object at a long distance by measuring the scattered light from pulsed laser radiation.
MIPI	Abbreviation for Mobile Industry Processor Interface, an interface standard for cameras and displays on mobile devices.
I ² C	A serial bus standard developed by NXP Semiconductor.
SPI	Serial Peripheral Interface, a type of serial bus that connects devices.
SPAD	Single Photon Avalanche Diode is a pixel structure that uses avalanche multiplication, which amplifies electrons from a single incident photon.
PLL	Abbreviation of Phase Locked Loop, an electronic circuit that outputs a signal in which the frequency of the input signal is increased by an arbitrary integer multiple by adding feedback control based on the periodic input signal.
Host	Indicates a block that communicates with and controls this sensor.
LD	Laser Driver.
Reflected light	Laser light emitted by the LD is reflected back to the object.
Ambient light	Light detected by the sensor other than laser light emitted from LD such as sunlight.
OTP	One Time Programmable ROM, which can be written only once.
SPAD Pixel	A SPAD Pixel is a single SPAD diode which is the smallest possible optoelectrical transmitting element in RxASIC.
Macro Pixel	A Macro Pixel is an array of SPAD cells, which can be read out simultaneously.
HR	High resolution.
LR	Low resolution.