

## KLT-USB2A-IMX258 V1.0

SONY IMX258 USB インターフェース 固定焦点 13MP M12 カメラモジュール



カメラモジュール番号	KLT-USB2A-IMX258 V1.0	
イメージセンサー	IMX258	Output Format: MJPG
EFL	2.27 mm	30 FPS 3840 x 2160 (4K)
F.NO	2.4	30 FPS 2048 x 1536 (2K)
ピクセル	4224 x 3136	30 FPS 1280 x 720 (720P)
視野角	152°(D) 122°(H) 93°(V)	Supporting OS
レンズタイプ	1/3.06 インチ	Windows 10, 8.1, 7, XP, Vista
レンズ寸法	13.00 x 13.00 x 22.82 mm	Windows XP SP2 under UVC
モジュールサイズ	80.00 x 25.00 mm	Linux Kernel V2.6.2.1 or later
モジュールのタイプ	固定焦点	MAC OS 10.4 or later
インターフェース	USB	Operating Voltage: 5V +/- 5%
IMTレンズモデル		Compliant with UVC Version 1.0

嵌合USBケーブル部品番号: **KLT-USB6A-Cable**



USBケーブル延長コード。別売りされている。

## [Product Brief]

Ver.1.0

# IMX258

Diagonal 5.867 mm (Type 1/3.06) 13Mega-Pixel CMOS Image Sensor with Square Pixel for Color Cameras

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### Description

IMX258 is a diagonal 5.867mm (Type 1/3.06) 13 Mega-pixel CMOS active pixel type stacked image sensor with a square pixel array. It adopts Exmor RSTM technology to achieve high speed image capturing by column parallel A/D converter circuits and high sensitivity and low noise image (comparing with conventional CMOS image sensor) through the backside illuminated imaging pixel structure. R, G, and B pigment primary color mosaic filter is employed. By introducing spatially multiplexed exposure technology, high dynamic range still pictures and movies are achievable. It

equips an electronic shutter with variable integration time. It operates with three power supply voltages: analog 2.7 V, digital 1.2 V and 1.8 V for input/output interface and achieves low power consumption.

In addition, this product is designed for use in cellular phone and tablet pc. When using this for another application, Sony does not guarantee the quality and reliability of product. Therefore, don't use this for applications other than cellular phone and tablet pc. Consult your Sony sales representative if you have any questions.

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### Functions and Features

- ◆ Back-illuminated and stacked CMOS image sensor Exmor RSTM
- ◆ Phase Detection pixel data output for Phase Detection Auto Focus
- ◆ High Dynamic Range (HDR) mode with raw data output.
- ◆ High signal to noise ratio (SNR).
- ◆ Full resolution @30fps (Normal / HDR). 4K2K @30fps (Normal / HDR) 1080p @60fps (Normal )
- ◆ Output video format of RAW10/8.
- ◆ Pixel binning readout and V sub-sampling function.
- ◆ Independent flipping and mirroring.
- ◆ CSI-2 serial data output (MIPI 2lane/4lane, Max. 1.3Gbps/lane, D-PHY spec. ver. 1.1 compliant)
- ◆ 2-wire serial communication.
- ◆ Two PLLs for independent clock generation for pixel control and data output interface.
- ◆ Dynamic Defect Pixel Correction.
- ◆ Fast mode transition. (on the fly)
- ◆ Dual sensor synchronization operation.
- ◆ 4K bit of OTP ROM for users.
- ◆ Built-in temperature sensor.

**Device Structure**

- ◆ CMOS image sensor
- ◆ Image size : Diagonal 5.867 mm (Type 1/3.06)
- ◆ Total number of pixels : 4224 (H) × 3192 (V) approx. 13.48 M pixels
- ◆ Number of effective pixels : 4224 (H) × 3144 (V) approx. 13.28 M pixels
- ◆ Number of active pixels : 4208 (H) × 3120 (V) approx. 13.13 M pixels
- ◆ Chip size : 5.990 mm (H) × 3.908 mm (V)
- ◆ Unit cell size : 1.12 μm (H) × 1.12 μm (V)
- ◆ Substrate material : Silicon

System block diagram



**Exmor RS**

\* Exmor RS is a trademark of Sony Corporation. The Exmor RS is a Sony's CMOS image sensor with high-resolution, high-performance and compact size by replacing a supporting substrate in Exmor R™ which changed fundamental structure of Exmor™ pixel adopted column parallel A/D converter to back-illuminated type, with layered chips formed signal processing circuits.