



CMOS CAMERA MODULES

your BEST camera module partner

KLT-H1K-AR0238 V1.0

On-Semi AR0238 DVP Parallel and HiSPi Interface Fixed Focus 2MP M12 Camera Module



Camera Module No.	KLT-H1K-AR0238 V1.0
Image Sensor	AR0238
EFL	3.1 mm
F.NO	1.8
Pixel	1928 x 1088
View Angle	153°
Lens Type	1/2.7 inch
Lens Dimensions	20.0 x 20.0 x 23.1 mm
Module Size	50.0 x 20.0 mm
Module Type	Fixed Focus
Interface	DVP Parallel and HiSPi

Mating Connector Part No. FH12-24S-0.5SH



Mating Connector On Main Board. Sold Separately.

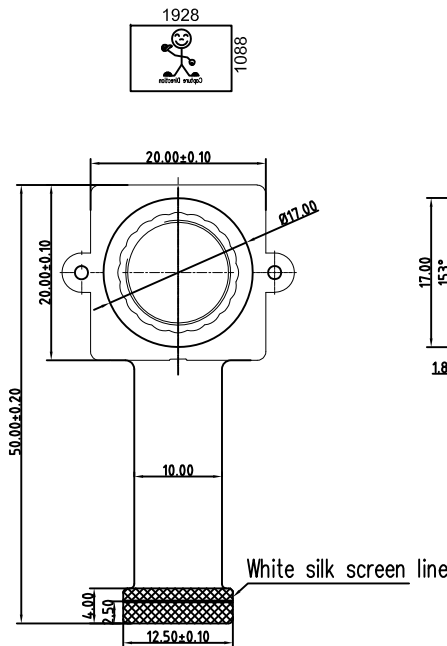
www.KaiLapTech.com sales@KaiLapTech.com Tel: (852) 6908 1256 Fax: (852) 3017 6778

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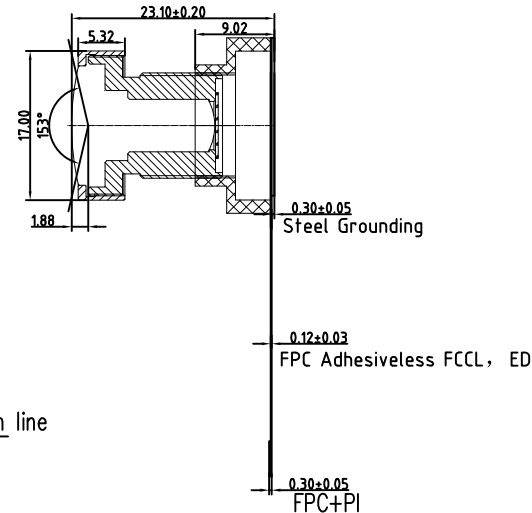
RoHS

Version	Mark	Information	Date
V1.0	PD	First Version	2017-04-28

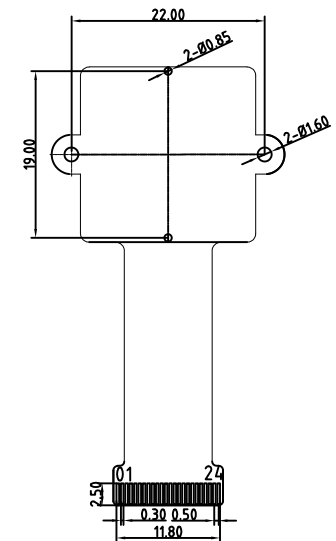
PIN	SIGNAL
1	DGND
2	AGND
3	SDA
4	AVDD2V8
5	SCL
6	RESET
7	VS
8	D11
9	HS
10	DVDD1V8
11	DOVDD1V8
12	D10
13	MCLK
14	D9
15	D8
16	D7
17	PCLK
18	D6
19	D0
20	D5
21	D3
22	D4
23	D2
24	D1



TOP VIEW



SIDE VIEW



BOTTEM VIEW

NOTE:

1.The device slave address:0x20

Parameter:

1、Sensor specification:

Image Sensor: AR0238

Pixel: 3um×3um

Lens Type: 1/2.7

Important Voltage Description: DVDD1.8V
(external power supply);

2、Lens specification:

FOV: 153°(D),126°(H),65°(V)

F/NO.: 1.8

TV distortion: <-30.1%

Focal length: 3.1mm

Composition: 6G+IR FILTER

IR Cut Coating: 650nm±10nm@50%

Kai Lap Technologies Group Ltd

Designed By

Kevin

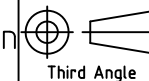
Model Name:

KLT-H1K-AR0238 V1.0

Checked By

Aouly Yan

Projection Type:



Unit:

mm

Scale:

1:1

Material:

Sheet:

1 of 1

Version:

1/0

Product Overview

AR0238: 1/2.7-Inch 2.1 Mp/Full HD Digital Image Sensor

For complete documentation, see the data sheet.

ON Semiconductor's AR0238 is a 1/2.7-inch CMOS digital image sensor with an active-pixel array of 1928Hx1088V. It captures images in either linear or high dynamic range modes, with a rolling-shutter readout. It includes sophisticated camera functions such as in-pixel binning, windowing and both video and single frame modes. It is designed for both low light and high dynamic range scene performance. It is programmable through a simple two-wire serial interface. The AR0238 produces extraordinarily clear, sharp digital pictures, and its ability to capture both continuous video and single frames makes it the perfect choice for a wide range of applications, including surveillance and HD video.

Features

- Latest 3.0µm pixel with ON Semiconductor DR-Pix™ technology with Dual Conversion Gain
- Supports line interleaved T1/T2 readout
- Full HD support
- HiSpi or Parallel Interface

Applications

- Video recording and streaming
- 1080p60 (monitoring) video applications
- High dynamic range imaging

Benefits

- Superior low-light performance
- Enables HDR processing in ISP chip
- 1080P 60 fps for superior video performance
- Flexible implementation for OEM Designs

End Products

- Car DVR
- Wireless Cameras
- Web Cameras

Part Electrical Specifications

Product	Compliance	Status	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Package Type
AR0238CSSC12SHRA 0-DP	Pb-free	Active	CMOS	2	60	1/2.7 inch	Rolling	3.0 x 3.0	HiSpi™	RGB	PLCC-48
	Halide free										
AR0238CSSC12SHRA 0-DR	Pb-free	Active	CMOS	2	60	1/2.7 inch	Rolling	3.0 x 3.0	HiSpi™	RGB	PLCC-48
	Halide free										
AR0238CSSC12SPRA 0-DR	Pb-free	Active	CMOS	2	60	1/2.7 inch	Rolling	3.0 x 3.0	Parallel	RGB	PLCC-48
	Halide free										

For more information please contact your local sales support at www.onsemi.com.

Created on: 9/30/2017