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PRELIMINARY PRODUCTION SPECIFICATION

Model No. : SB63A3A13-S2-AY0 (V1.0)

Fangtec Corporation

Revision History

Date	Rev.	Contents
2025/10/01	Preliminary	First release
2025/12/17	V1.0	Modify Lens FOV spec

Table of Contents

1. General Description

The SB63A3A13-S2-AY0 is an USB Video Class (UVC) compliant camera module designed for notebook PC image applications. It is a highly integrated system that provides a cost-effective and performance solution for video capture application. It shall be a reliable device that is embedded in notebook PC to transfer video data through USB interface to notebook PC. It provides Auto Focus functions.

2. Features

- Compliant USB 2.0 and USB Video Class
- Support still image capture and video streaming
- Support Snapshot button
- Automatic image control
  - Automatic Exposure Control (AEC)
  - Automatic White Balance (AWB)
  - Automatic Gain Control (AGC)
- Support for Auto Focus Control (AFC)
- Support 720p/1080p/2160p frame rate up to 30fps
- Support for still image resolution: 3840 (H) x 3104 (V)
- Input Voltage: 5V

3. Applications

Notebook PC
LCD PC
LCD Monitor
Industrial PC

4. Key Specification

Module Specification	
CMOS sensor Active Pixels	4208 (H) x 3120 (V)
Dimension (mm)	62mm x 9.5mm TTL=5.3mm
PCB Thickness	0.8mm
Output Interface	USB2.0
Color Filter Array	RGGB Bayer Pattern
Image/Video Format	YUY2, MJPG
Output Interface	USB2.0 (480Mbit/sec)
Operating Temperature	0° ~ +70°
Compatibility	USB Video Class

Power Consumption			
	Min	Type	Max
Input Supply Voltage	4.85V	5.0V DC	5.25V
Un-configured Current	–		–
Operating Current	–		–
Suspend Current	–		–

DSP Specification	
Type	USB 2.0 web camera controller
Support Sensor	Most popular CMOS sensors
Compatibility	USB 2.0 Video Class Compliant, Microsoft WHQL Certified /MAC OSX EI captain 10.11.4 and Linux /Android

Sensor Specification	
Optical format	1/3.06-inch 13M IMX258 CMOS Image Sensor
Pixel size	1.12um x 1.1.2um
Image size	Diagonal 5.867mm
Maximum Image	4224 (H) x 3192 (V) 13.48 M pixels

Lens Specification	
Element	5P
F Number	2.05±5%
Field of view	D 80.3° / H 68.2 ° / V 53.8 °
TV Distortion	<1.5%
Focus Range	10cm ~ ∞

5. Max Frame Rates (fps): MJPEG

VGA	SVGA	720P	Full HD	UXGA	3MP
640×480	800x600	1280x720	1920x1080	1600x1200	2048x1536
30	30	30	30	30	30
QSXGA	8MP	4K	12MP		
2592x1944	3264x2448	3840x2160	3840x3104		
30	30	30	15		

6. Pin Description

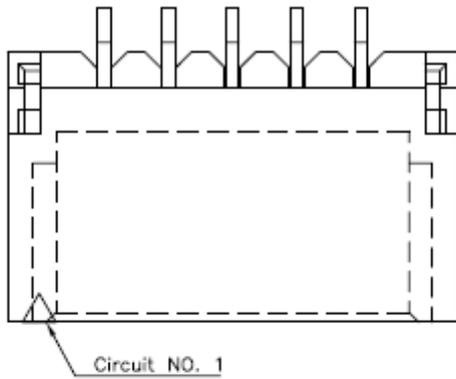| Pin Description			
Pin Number	**Name**	**Pin Type**	**Function Description**
1	VCC	Power	USB Power Supply 5.0V
2	D-	Data Pin	USB Data Transmission
3	D+	Data Pin	USB Data Transmission
4	GND	GND	System Ground
5	NC		

7. Outline Specification
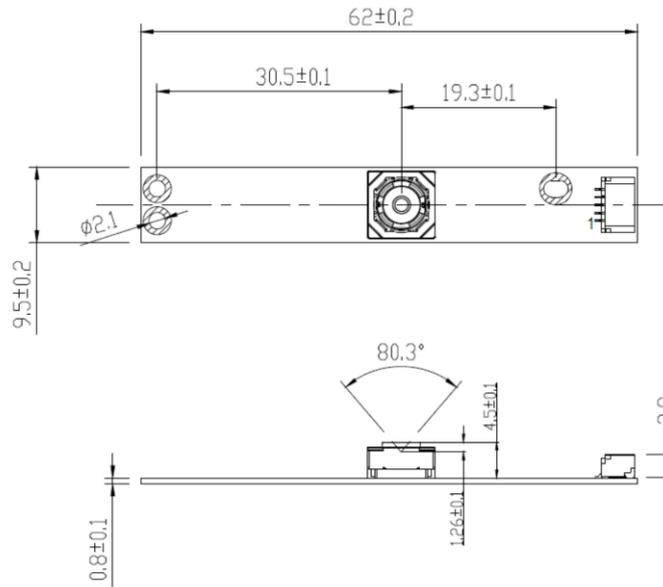
禁置區域
H=0

8. Connector Specification

CKT	Dim A	Dim B	Dim C
5	4.0	5.4	7.0