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產 品 規 格

**PRELIMINARY PRODUCTION SPECIFICATION**

**Model No. : SB63A3H13-S2-AY0 (V1.0)**

**Fangtec Corporation**

## Revision History

| Date       | Rev.        | Contents      |
|------------|-------------|---------------|
| 2025/10/01 | Preliminary | First release |
|            |             |               |
|            |             |               |
|            |             |               |
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## 1. General Description

The SB63A3H13-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 and digital Microphone 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 for Digital Microphone x 1
- 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 El 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            |                     |
| F Number           | 2.2±5%              |
| Field of view (ME) | D 80.3° / H ° / V ° |
| TV Distortion (ME) | -%                  |
| Focus Range        | 10cm ~ ∞            |

## 5. Max Frame Rates (fps): MJPEG

| VGA       | SVGA      | 720P      | Full HD   | UXGA      | 3MP       |
|-----------|-----------|-----------|-----------|-----------|-----------|
| 640×480   | 800×600   | 1280×720  | 1920×1080 | 1600×1200 | 2048×1536 |
| 30        | 30        | 30        | 30        | 30        | 30        |
| QXGA      | 8MP       | 4K        | 12MP      |           |           |
| 2592×1944 | 3264×2448 | 3840×2160 | 3840×3104 |           |           |
| 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



