

# 8MP IMX678 CMOS Sensor 50\*50

## +38\*38 Intelligent IP Camera



### Key Features

- 1/1.8" 8MP CMOS Sensor;
- Standard 50\*50 + 38\*38 Double layers boards structure;
- H.265+, H.265, H.264 encoding;
- Supports image flip, backlight compensation, glare suppression, 3D digital noise reduction, fog transmission, and digital wide motion;
- Support standard ONVIF, GB28181, RTMP, HK, DH and other proprietary protocols;
- Provide SDK development kit, support secondary development, support CGI, HTTP, WEBSOCK protocol docking;
- Gigabit network;
- 4T computing power;
- 8GB memory, 16GB EMMC storage;
- Support Google Core Browser without plugins;
- Supports high frame rate up to 60FPS;
- Supports AIISP image enhancement to enhance the low-noise effect.

### Technical parameters

| Model                      |                                                       |
|----------------------------|-------------------------------------------------------|
| Model No.                  | SV-NHF678                                             |
| Master chip                | SS928V100                                             |
| Image Sensor               | 8MP, 1/1.8" black light IMX678 CMOS Sensor            |
| Minimum illumination       | Color: 0.001Lux@F1.0 (AGC ON), B/W: 0.001 Lux (IR ON) |
| Watchdog                   | hardware watchdog                                     |
| Wide dynamic               | 120 dB                                                |
| Main stream                | 30fps@ (3840*2160, 2880*1620, 2560* 1440, 1920*1080)  |
| Substream                  | 30fps@ (704*576, 640*480)                             |
| Video compression standard | H.265+/H.265/H.264                                    |
| Frame rate enhancement     | Maximum support 4K@60FPS                              |
| Video compression bit rate | 512 Kbps~32 Mbps                                      |
| Character overlay          | support                                               |
| Shutter                    | 1/12s ~ 1/100000s                                     |
| Noise reduction            | 3D/2D noise reduction                                 |
| WDR                        | Support digital wide dynamic range                    |

|                                  |                                                                                                                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Auto Iris                        | Support DC IRIS automatic aperture                                                                                                                                                                         |
| Audio interface                  | 1 input, support microphone or pickup input; 1 output, support connecting headphones or amplifier                                                                                                          |
| Audio Compression Standards      | G711U / G711A / AAC-LC                                                                                                                                                                                     |
| Simultaneous previews            | Maximum 8 channels                                                                                                                                                                                         |
| Network protocol                 | Supports CGI, HTTP, HTTPS, GB28181, SIP, RTMP, TCP/IP, UDP, RTP, FTP, RTCP, RTSP, NTP, DHCP, DNS, DDNS, SNMP, SSL/TLS, WebSocket and other network protocols.<br>Supports standard protocols such as ONVIF |
| Browser                          | Preview using plug-ins: IE10, IE11<br>Use plugin free preview: Edge, Chrome, Firefox, etc.                                                                                                                 |
| Network                          | 1 RJ45 Ethernet port, 10 M/100 M adaptive                                                                                                                                                                  |
| Audio                            | 1 input, support microphone or pickup input; 1 output, support connecting headphones or amplifier                                                                                                          |
| USB port                         | USB 2.0+USB 3.0 (5V power supply), supporting extended 4G/WiFi functionality                                                                                                                               |
| Sizes                            | 50x50x10.8mm, 38x38x10.8mm, 50+38 Double layers boards structure                                                                                                                                           |
| weights                          | 20g                                                                                                                                                                                                        |
| operating temperature            | -20℃～+60℃                                                                                                                                                                                                  |
| Power supply & power consumption | DC12V power input, 6W (MAX) power consumption(60fps with a power of 6.5w)                                                                                                                                  |

# Interface definition

1. 3V3
2. UART0\_TXD
3. UART0\_RXD
4. GND
5. UART2\_TXD
6. UART2\_RXD

1. AUDIO IN
2. AUDIO OUT
3. GND
4. System Reset
5. GND
6. CVBS Output
7. RS485\_A

1. DC12V IN
2. GND
3. ETH\_P1/MX0+
4. ETH\_P2/MX0-
5. ETH\_P3/MX1+
6. ETH\_P6/MX1-
7. ETH\_P4/MX2+
8. ETH\_P5/MX2-
9. ETH\_P7/MX3+
10. ETH\_P8/MX3-
11. LINK indicator lamp
12. ACT indicator lamp

10. GND
9. USB3\_TXP
8. USB3\_TXM
7. GND
6. USB3\_RXP
5. USB3\_RXM
4. GND
3. USB\_DP
2. USB\_DM
1. DC5V OUT

SDIO  
Extension Interface

SENSOR2 interface

HDMI interface

SENSOR1 interface

1. IR-CUT\_A
2. IR-CUT\_B

1. Light sensitive feedback input
2. GND
3. PWM dimming output

4. Damping -
3. Damping+
2. Drive+
1. Drive+-

