**8MP IMX678 Super Starlight AI ISP IPC Module**

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  **Product Feature:**

Video resolution：3840\*2160/30fps

Video encoding:H.265/H.264/MJPEG

Integrated neural network acceleration engine, computing power up to 2.5Tops INT8

Dual ARM Cortex A55@1.2GHz processor, 32KB I-Cache, 32KB D-Cache ,256KB L3 cache

Support AI super noise reduction, 3D noise reduction, 2D noise reduction, image edge enhancement, defogging, dynamic contrast enhancement, etc.

Support to remove fixed pattern noise (FPN)

Support automatic restart function after power failure/accidental failure

PoE optional(Need buy expand board)

HDMI output optional(need buy expand board,video resolution is 1080P 30fps)

USB3.0 output optional(Need buy expand board,video resolution is 3840\*2160)

CVBS+DC auto iris output optional(Need buy expand board,video resolution is 704\*756)

**Datasheet：**

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| Order Model | M678H19D\_L21\_EN |
| System |
| CPU | HI3519DV500 Dual ARM Cortex A55@1000MHz |
| Algorithm | 2.5 Tops INT8 |
| Flash | 256Mbit SPI Nor Flash |
| DDR | 8Gbit DDR4(2x 4Gbit)  |
| Image |
| Sensor | SONY IMX678，1/1.8″ Progressive Scan CMOS Sensor |
| Wide Dynamic Range | 120dB（support clear HDR) |
| Video Resolution | 8MP/3840\*2160 |
| Video Encoding | H.265/H.264/MJPEG |
| Video Resolution | Main stream | 3840\*2160 2592\*1944 2560\*1440 1920\*1080 (30fps) |
| Sub stream | 1280\*720 /704\*576/640\*480/ 352\*288 (30fps) |
| Video Bit rate | 32kbps~80Mbps，CBR/VBR adjustable |
| S/N Ratio | ≥52dB |
| Min Illumination | Color 0.0001 Lux@F1.2 |
| Audio |
| Audio I/O | 1ch line in Or 1ch mic in,1ch line out,support two-way voice intercom  |
| Audio Encoding | G.711A、G.711U |
| Function |
| AE | Support |
| AGC | Support |
| AWB | Support |
| Noise Reduction | 2D noise reduction/3D noise reduction/ AI super noise reduction |
| Private Masking | 4 Privacy mask area  |
| Interesting Area Code | Support |
| Video Record Off Network | Support |
| Motion Detection | 4 detection area |
| Video Adjust | Adjust image contrast, brightness, saturation, sharpness and image mirroring, flipping, fog penetration, strong light suppression, backlight compensation, noise reduction level, digital wide dynamic, etc. |
| Remote Management | System setting/Video stream management/Account management/Network management |
| Alarm Detection | E-mail alarm,PC VMS alarm,Motion detection alarm |
| Hardware Interface | Reset(restore factory setting) |
| 2 Group TTL Serial Port ,communication with device or control PTZ Pan（One group can set to RS485 serial port）  |
| Default support 1ch alarm in ,（1ch alarm out need add expand board） |
| Support SD/TF storage，max support 1.0T （need add expand board） |
| OSD Overlay | OSD place ,color ,words can be setting |
| Network |
| Ethernet Interface | RJ45 10M/100M |
| Video Stream | Dual stream |
| Network Protocol | TCP/IP、UDP、RTP、RTSP、RTCP、RTMP、HTTP、HTTPS、802.1X、DNS、DDNS、DHCP、NTP、PPPOE、SMTP、UPNP |
| ONVIF | ONVIF Profile S |
| CGI | Support |
| General |
| Working Temperature | -20°~+70° |
| Working Humidity | 10%~90% |
| Power Adaptor | DC12V |
| Module Size |
| PCB Size | CPU Board | Board size:42mm\*42mm，Screw hole distance:34mm\*34mm； |
| Sensor Board | Board size :38\*38mm, Screw hole distance:34mm\*34mm,Lens holder distance:22mm |

  **Pin definition:**

