**12MP Ultra HD Super Starlight IP Module**

  **Product Feature:**

* Video resolution：4000\*3000/30fps ;
* Video Encoding:H.265/H.264/MJPEG
* Integrated neural network acceleration engine, computing power up to 2.5Tops INT8 (support INT4/FP16);
* Quad-core ARM Cortex A55@1.2GHz processor, 32KB I-Cache, 32KB D-Cache /512KB L3 cache, supports Neon acceleration, integrated FPU processing unit;
* Built--in 32bit MCU@500MHz，32KB I-Cache，32KB D-Cache /64KB TCM；
* Built-in dual core vision Q6 DSP，32K I-Cache /32K D-Cache /32K IRAM/320K DRAM；
* support MJPEG/H264/YUV2 encoding, support 4K/5MP/2K/1080P/720P/D1/VGA resolutions (optional function);
* Support HDMI output ( mini HDMI2.0), HDMI output max resolution is 4K@60 (optional function);
* Default dual stream (three streams customized)
* 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/WIFI are optional function；

**Datasheet：**

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| Order Model | M577S927\_L21\_EN |
| System |
| CPU | SS927 4ARM Cortex A55@1.4GHz |
| Algorithm | 2 .5 Tops INT8 |
| Flash  | 8GB EMMC |
| DDR | 2GB LPDDR4X (2x1GB)  |
| Image |
| Sensor | SONY IMX577，1/2.3″ Progressive Scan CMOS Sensor |
| Wide Dynamic Range | 100dB |
| Video Resolution | 8MP/4000\*3000 |
| Video Encoding | H.265/H.264/MJPEG |
| Video Resolution | Main stream | 4000\*3000 3840\*2160 2592\*1944 2048\*1536 1-30fps |
| Sub stream | 1920\*1080 1280\*720 704\*576 352\*288 1-30fps |
| Video Bit rate | 32kbps~60Mbps，CBR/VBR adjustable |
| S/N Ratio | ≥50dB |
| Min Illumination | Color 0.02 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 | Support 2D noise reduction/3D noise reduction/ AI super noise reduction |
| Private Masking | Up to set 4 Privacy mask area  |
| Interesting Area Code | Support |
| Video Record Off Network | Support |
| Motion Detection | Support 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）  |
| 1Ch alarm in ,1CH alarm out（Multi channel alarm to be customized） |
| Support SD/TF storage，max support 512G （optional function） |
| Support MJPEG/H264/YUV2 encoding .support 4K /5MP/2K/1080P/720P/D1/VGA resolution（optional function） |
| HDMI 2.0 video output 4K@60（optional function） |
| OSD Overlay | OSD place ,color ,words can be setting |
| Network |
| Ethernet Interface | RJ45 10M/100M/1000M |
| 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 | -30°~+70° |
| Working Humidity | 10%~90% |
| Power Adaptor | DC12V |
| Module Size |
| PCB Size | CPU Board | Board size:56mm\*56mm，Screw hole distance:34mm\*34mm； |
| Sensor Board | Board size :38\*38mm, Screw hole distance:34mm\*34mm,Lens holder distance:22mm |

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