

S1

4MP@60fps FPV/UAV Module



The S1 is a high-performance 4MP@60FPS Low-illumination Module designed for FPV and UAV Solution. It features a 1/1.8" Sony IMX664 STARVIS2 CMOS and is powered by the Hi3519DV500 AI SOC. It integrated with efficient neural network inference engine, with a maximum computing power of 2.5 TOPS. It support dual UART serial communication.

For secondary development, the HU40A01 includes two set UART interfaces and provides SDK for Windows, Linux and Android. It also supports the ONVIF standard protocol, along with OpenIPC and FPV firmware. This makes it highly convenient for secondary development and allows for quick integration into your projects.

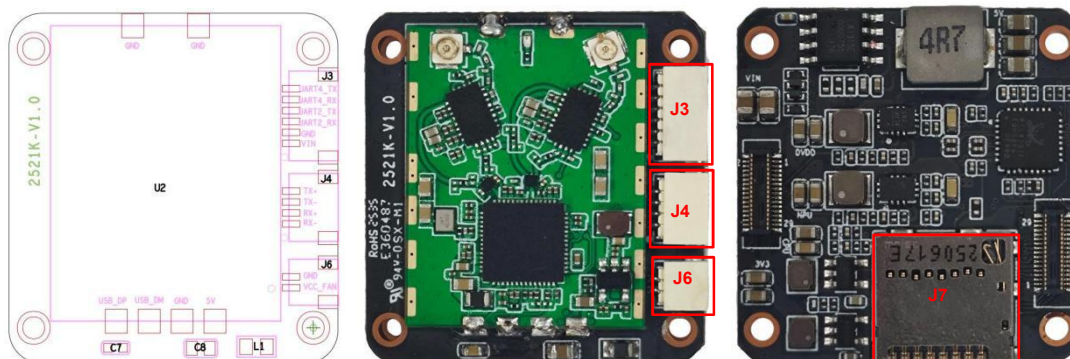
Key Features:

- 1/1.8" 4.16MP Sony IMX664 STARVIS2 CMOS
- Maximum resolution up to 2688×1520@60fps
- Hi3519DV500 AI SOC, supports 2.5TOPS
- Support motion detection
- Support TCP/IP/HTTP/NTP/DHCP/SMTP/RTSP/P2P
- Open SDK(Linux, Windows), CGI, Support OPENIPC development
- Support UART interface

Technical Specifications:

Image Sensor	
Model	S1
Sensor	1/1.8" 4.16MP Sony IMX664 STARVIS2 CMOS
Maximum Resolution	2688x1520@60fps
Minimum Illumination	0.005lux @F1.0(Color) / 0.001 lux@F1.0 (B/W)
Camera	
AGC	Auto/Manual
S/N Ratio	≥50dB (AGC OFF)
Shutter Speed	1/2 - 1/20 ,000s,Slow shutter support
Wide Dynamic Range	Digital WDR
Exposure Mode	Auto/ Manual/shutter mode
AWB	Yes
Day & Night	Day
Compression	
Video Compression	H.265/H.264 Main Profile /M-JPEG
Audio Compression	G711U,G711A,PCM
Image Resolution	
Main Stream	2688×1520@60fps/2304x1296@90fps/1920×1080@120fps
Sub Stream	800x448/640×480/480x360/352×288@60fps
General Protocol	
Network Protocol	TCP/IP/HTTP/NTP/DHCP/SMTP/RTSP/P2P
ONVIF protocol	Yes
P2P	
TUYA APP	Support for Tuya APP on Android, IOS(Default without...)
Function	
Web Configuration	Yes
OSD	Yes
Motion Detection	Yes
Interface	
Wired	1ch 10/100 Base Ethernet,RJ45 interface
UART	Support
Other	
Power Supply	DC 12V,voltage range 7.4-26V
Size/Weight	32x30mm+19x19mm /14g
Operation Temperature	-30°C~60°C
Working Humidity	≤90%RH(non-condensing)

Interface Pin Definition:



User Interface:

Interface	Pin	Pin name	Functional parameter
J3	1	VIN	DC power input, voltage range 7.4-26V
	2	GNG	GND
	3	UART2_RXD	UART2 Serial communication, receive RXD
	4	UART2_TXD	UART2 Serial communication, sending TXD
	5	UART4_RXD	UART4 Serial communication, receive RXD
	6	UART4_TXD	UART4 Serial communication, sending TXD
J4	1	RXN	100Mbps Network RX-
	2	RXP	100Mbps Network RX+
	3	TXN	100Mbps Network TX-
	4	TXP	100Mbps Network TX+
J6	1	VCC	Positive pole of fan(5V)
	2	GND	Negative pole of fan(GND)
J7	—	TF	TF card slot