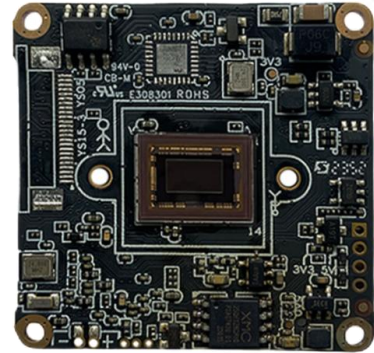


## IM20A02 2.0MP Low-illumination HD Network



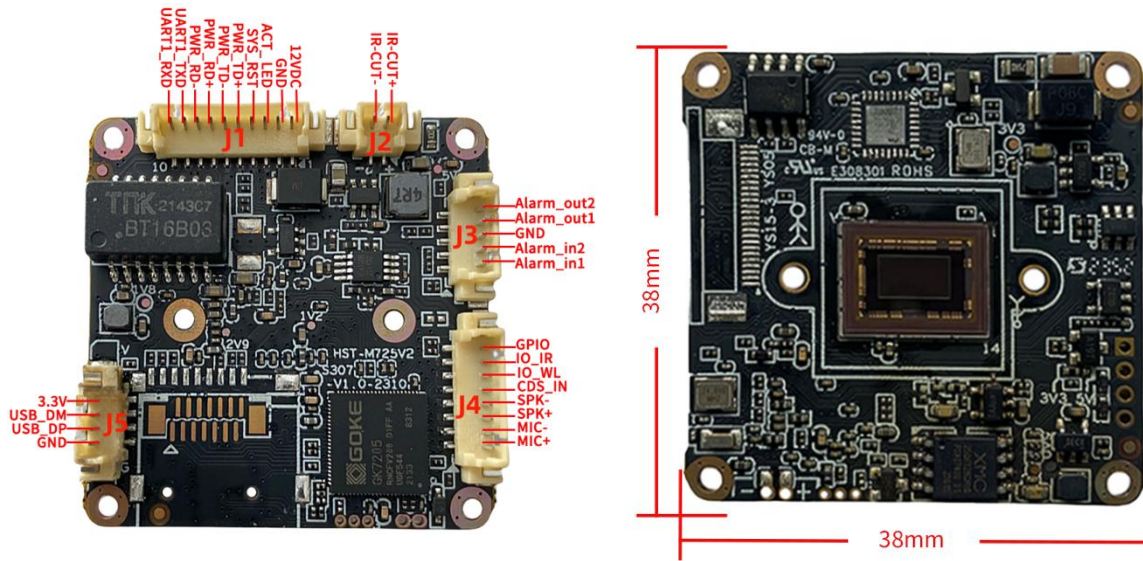
### Key Features:

- 1/2.8" 2MP Sony IMX307 STARVIS CMOS
- Maximum resolution up to 1920×1080@30fps
- True Day/Night, 3D DNR, Digital WDR
- Support humanoid detection, motion detection
- Support the Tuya P2P on Android, IOS
- Support two way audio, Built-in audio amplifier function
- Support ONVIF and XM protocol
- Support TCP/IP/HTTP/NTP/DHCP/SMTP/RTSP
- Open SDK(Linux,Windows), CGI,easily to be integrated with other digital systems
- Support OPENIPC development

## Technical Specifications:

<b>Image Sensor</b>	
Sensor	1/2.8" 2MP Sony IMX307 STARVIS CMOS
Maximum Resolution	1920x1080@30fps
Minimum Illumination	0.003lux @F1.0(Color) / 0.0005 lux@F1.0 (B/W)
<b>Camera</b>	
AGC	Auto/Manual
S/N Ratio	≥45dB (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	External control (IR Cut Filter)
Light Control	Support IR/White/dual light, three mode independent control
<b>Compression</b>	
Video Compression	H.265+/H.265/H.264 Main Profile /M-JPEG
Audio Compression	G711U,G711A,PCM
<b>Image Resolution</b>	
Main Stream	1920 × 1080/ 1280x960/ 1280x720@30fps
Sub Stream	640x480/480x360/352x288/176x144@30fps
<b>General Protocol</b>	
Network Protocol	TCP/IP/HTTP/NTP/DHCP/SMTP/RTSP/P2P
ONVIF protocol	Yes
Compatibility	Support XM protocol
<b>P2P</b>	
Support TUYA APP	Support for Tuya APP (Android, IOS)
<b>Function</b>	
Web Configuration	Yes
OSD	Yes
Motion Detection	Yes
Humanoid Detection	Yes
Reset	Support cable reset button(optical)
Amplifier	Built-in amplifier
<b>Interface</b>	
Wired	1ch 10/100 BaseT Ethernet,RJ45 interface
Audio	Microphone input/output
Alarm	2 ports input, 2 ports output
UART	Support
USB	Support
TF Card	Optional and max. 512G (reserved extended SD slot)
<b>Other</b>	
Power Supply	DC 12V
Size	38x38mm
Operation Temperature	-10°C~50°C
Working Humidity	≤90%RH(non-condensing)

## Interface Pin Definition:



Interface	pin	Pin name	Functional parameter
J1	1	12VDC	DC power input, voltage range 5V-13.8V
	2	GND	GND
	3	ACT_LED	Network indicator light interface
	4	SYS_RST	Restore factory settings LOW valid
	5	PWR_TD+	Adaptive network interface, physically receiving/transmitting signals (differential +)
	6	PWR_TD-	Adaptive network interface, physically receiving/transmitting signals (difference -)
	7	PWR_RD+	Adaptive network interface, physically receiving/transmitting signals (differential+)
	8	PWR_RD-	Adaptive network interface, physically receiving/transmitting signals (difference -)
	9	UART1_TXD	Serial communication, sending TX
	10	UART1_RXD	UART1, receive RX
J2	1	IR-CUT+	IR-CUT signal +
	2	IR-CUT-	IR-CUT signal-
J3	1	Alarm_in1	Alarm input 1
	2	Alarm_in2	Alarm input 2
	3	GND	GND
	4	Alarm_out1	Alarm relay output 1
	5	Alarm_out2	Alarm relay output 2
J4	1	MIC+	MIC+
	2	MIC-	MIC-
	3	SPK+	SPK+
	4	SPK-	SPK-
	5	GDS_IN	Hard light sensitive infrared
	6	IO_WL	Soft photosensitive white light
	7	IO_IR	Soft photosensitive infrared
	8	GPIO	8 preview GPIO (PWM not supported)
J5	1	3.3V	3.3V power supply
	2	USB_DM	data D-
	3	USB_DP	data D+
	4	GND	GND