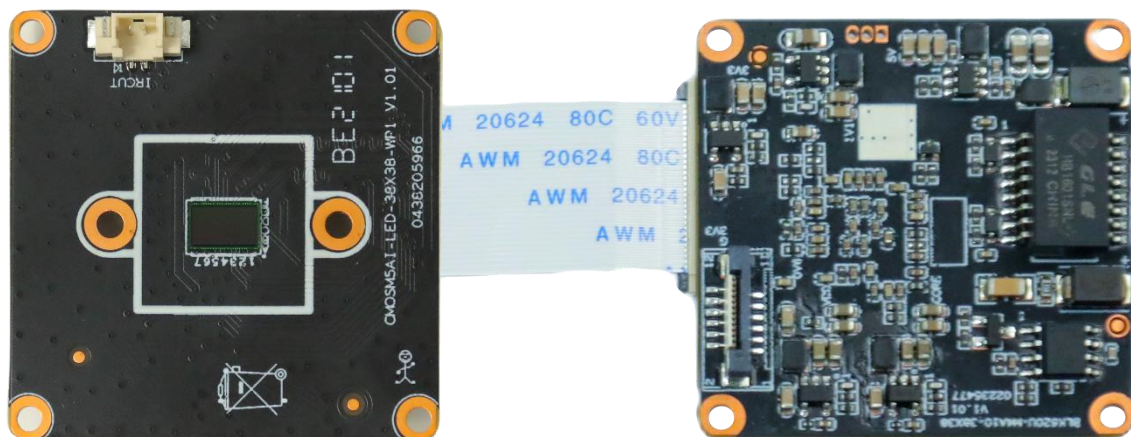


IVG-A4 Module Specification

Version:20230809



Introduction

IVG-A4 is a 4MP Ultra HD Blacklight AI Intelligent IP Camera Module, 4MP image, all noise free, full color at night, support human shape detection, face detection, car shape detection, support H.265AI coding, mainly used in night vision Ultra HD video surveillance camera.

Main Features



AI Blacklight



Human Detection

H.265AI



Face Detection

AI Noise Reduction



Vehicle Detection



H. 265AI



NPU



Lightning Protection

Content

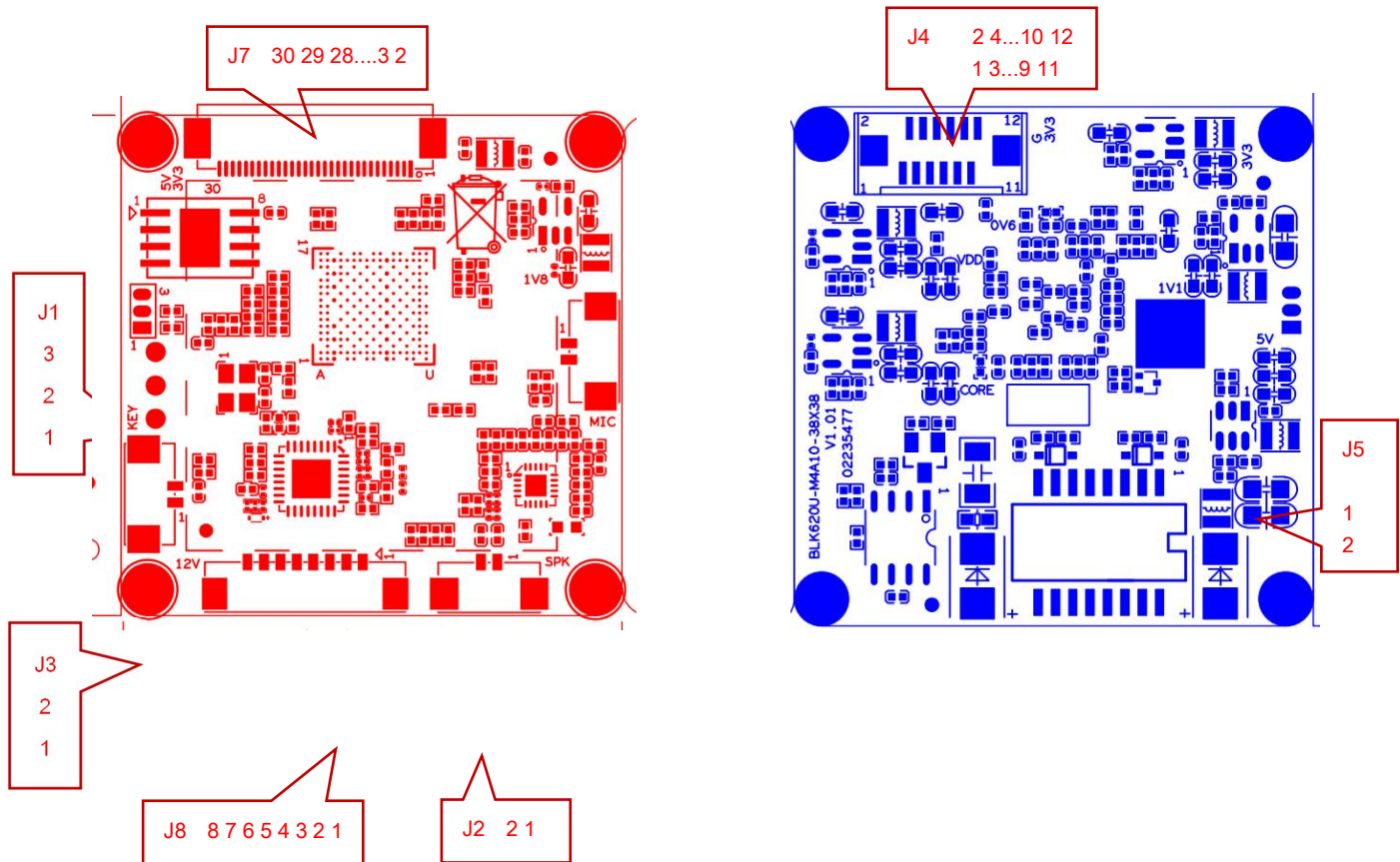
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1. Product Parameters

	Model	IVG-A4
Module	System structure	Embedded RTOS,dual-core 32bit DSP,pure hard compression ,watch dog
	Sensor	1/2.8" black light CMOS sensor, color 0.0001Lux@F1.2, black/white 0.0001Lux@F1.2
	Video compression	H.265AI(Compatible with H.265/H.264), support dual stream, AVI;0.1M~10Mbps variable;1~30f/s variable
	Image output	Main stream: 4MP 2560*1440@25fps, 3MP 2304*1296@25fps, 2MP 1920*1080@25fps ; sub-stream: 800*448@25fps;
	Shutter	1/50(1/60) s to 1/10,000s
	Lens	N/A
	Day and night	Support IR-CUT, IR-CUT coil has an internal resistance of 20 ohms, the power-on time is less than 200ma, Recommended use: 5V standard voltage IR-CUT
Image	Noise reduction	Support 2D/3D
	Wide dynamic	Support digital
	Auto iris	N/A
Interface	Audio compression	G.711, support bidirectional talk,audio&video synchronization
	Audio interface	1 input, MIC: Selection range -28dB~-36dB, -33dB is recommended. 1 Output, Speaker: 8Ω2W recommended.
	Network interface	1*RJ45 10/100M adaptive Ethernet port; support RTSP/FTP DHCP/NTP/UPnP etc
	Extension interface	SD card slot,WIFI
	Singal interface	One photo resistance interface,one IR-CUT interface ,support photo resistance signal and IR-CUT links to IR
	PTZ	N/A
	Motor interface	N/A
	Alarm I/O	N/A
	WIFI interface	N/A (Extended support)
	Reset interface	Support
	SD Card	N/A (Extended support)
Intelligence	Intelligence analysis	Supporting Human shape detection, face detection, face capture, license plate recognition, passenger flow statistics, and support to customize other intelligent functions
Other function	Other function	Support WEB,OSD,live video transmission, motion detect and IO alarm, front-end storage/playback/download, and center reminder and image linkage, support FTP capture ; united remote client monitoring software、MYEYE;perfect SDK;
	ONVIF	Support
	Mobile monitoring	Support multiple mobile monitoring (iOS , Android)
General	Reliability	Comprehensive lightning protection, 7 * 24 hours -10℃ ~ 65℃high temperature stable and reliable testing
	Power	DC12V/2A input, power consumption: ≤3W
	Dimension	38mm*38mm+38mm*38mm
	Other	Support POE power supply

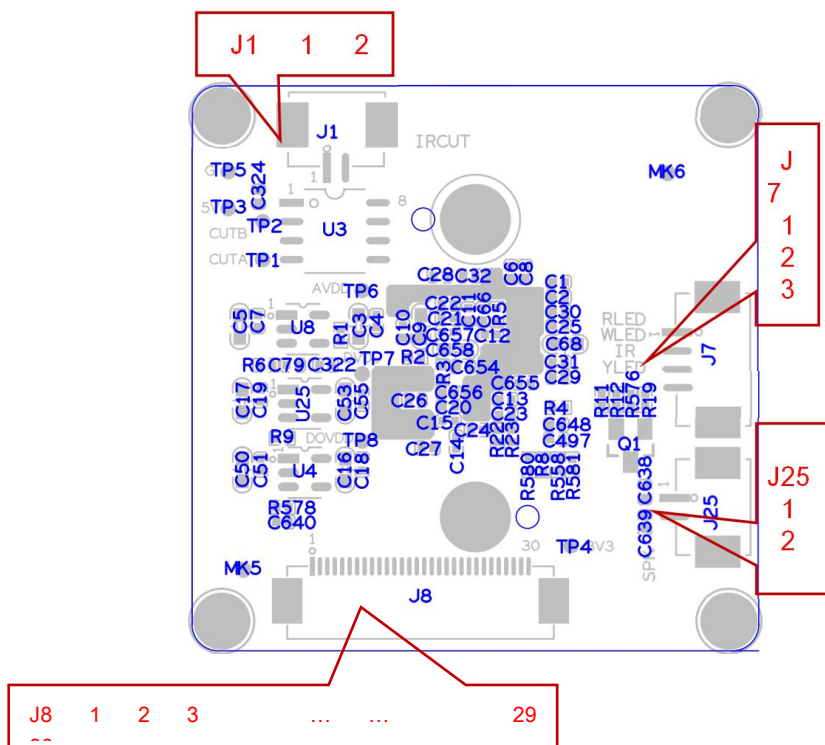
2. Interface Description

Dimension:38mm*38mm+38mm*38mm



printing number	Pin number	pin assignment	Function
J3	1	KEY	RESET
	2	GND	GND
J1	1	UART0_RXD	Debug UART
	2	UART0_TXD	Debug UART
	3	GND	GND
J8	1	ETH_LINK_ACT_LED	LED/PHY_AD0
	2	ETH_LINK_STA_LED	LED/PHY_AD1
	3	ETH_TX+	Ethernet signal+
	4	ETH_TX-	Ethernet signal-
	5	ETH_RX+	Ethernet signal+
	6	ETH_RX-	Ethernet signal-
	7	GND	GND
	8	12V 输入	12V INPUT
J5	1	MIC_N1	MIC
	2	MIC_P1	
J2	1	SPKN	SPK
	2	SPKP	
J4	1	SDIO0_CCLK_OUT	SDIO0_CCLK_OUT
	2	SD_DATA0	SD_DATA0
	3	SD_DATA1	SD_DATA1

	4	SD_DATA2	SD_DATA2
	5	SD_DATA3	SD_DATA3
	6	SD_CMD	SD_CMD
	7	WIFI_PDN	WIFI_PDN
	8	GND	GND
	9	WIFI_DN	WIFI_DN
	10	GND	GND
	11	WIFI_DP	WIFI_DP
	12	3V3	3V3
J7	1	I_MIPIDATA1N_D8	Connected to sensor board
	2	I_MIPIDATA1P_D9	
	3	I_MIPIDATA2N_D4	
	4	I_MIPIDATA2P_D2	
	5	I_MIPIDATA3N_D5	
	6	I_MIPIDATA3P_D3	
	7	I_MIPIDCLKP_D7	
	8	I_MIPIDCLKN_D6	
	9	I_MIPIDATA0P_D10	
	10	I_MIPIDATA0N_D11	
	11	GND	
	12	ADC1_IN	
	13	SEN0_MCLK	
	14	GND	
	15	SENSOR_SDA	
	16	SENSOR_SCL	
	17	IRCUT_A	
	18	IRCUT_B	
	19	SENSOR_RST	
	20	NC	
	21	NC	
	22	GND	
	23	NC	
	24	NC	
	25	WLED	
	26	RLED	
	27	YLED	
	28	GND	
	29	DVDD_3V3	
	30	5V	



printing number	Pin number	pin assignment	Function
J8	1	D1N	Connected to motherboard
	2	D1P	
	3	D2N	
	4	D2P	
	5	D3N	
	6	D3P	
	7	CLKP	
	8	CLKN	
	9	D0P	
	10	D0N	
	11	GND	
	12	ADC1_IN	
	13	SEN0_MCLK	
	14	GND	
	15	SDA	
	16	SCL	
	17	IRCUT_A	
	18	IRCUT_B	
	19	RST	
	20	/	
	21	/	
	22	GND	
	23	SPKP	
	24	SPKN	
	25	WLED	
	26	RLED	

	27	YLED	
	28	GND	
	29	3V3	
	30	5V	
J7	1	RLED	RLED
	2	WLED	WLED
	3	ADC1_IN	ADC1_IN
	4	YLED	YLED
J25	1	SPKN	Spk(Reserved interface)
	2	SPKP	
J1	1	AOUT	IRCUT
	2	BOUT	

3. Electrical Parameters

3.1 Absolute Electrical Parameters

Parameter	Description	Min	Max	Unit
Ts	Storage temperature	-40	150	℃
VCC	Power supply voltage	9.6	14.4	V
Static electricity discharge voltage (Air)	TAMB-25℃	-4	4	KV
Static electricity discharge voltage (Contact)	TAMB-25℃	-4	4	KV

3.2 Working Conditions

Parameter	Description	Min	Max	Unit
Ta	Working temperature	-20	65	℃
VCC	Power supply voltage	10.8	13.2	V