

IVG-A6-P40 Module Specification

Version: 20240305



Introduction

IVG-A6-P40 is a 6MP Ultra HD Blacklight AI Intelligent IP Camera Module, 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



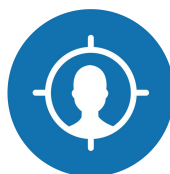
H.265AI



AI Noise Reduction



Human Detection



Face Detection



Vehicle Detection



NPU



Lightning
Protection

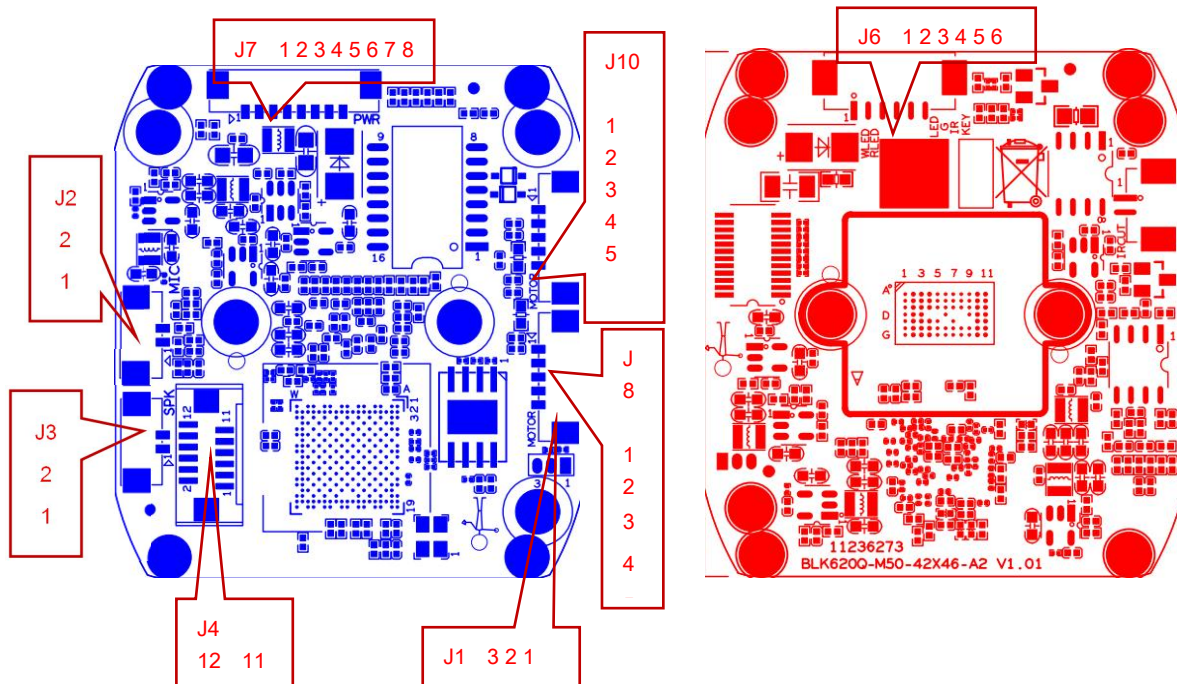
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1. Product Parameters

	Model	IVG-A6-P40
Module	System structure	Embedded RTOS,dual-core 32bit DSP,pure hard compression ,watch dog
	Sensor	1/1.8" 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: 6M 3200*1800@30fps ; 4M 2688*1520@30fps ; 3M2304*1296@30fps ; 2MP 1920*1080@30fps; sub-stream: 800*448@25fps;
	Shutter	1/50(1/60) s to 1/10,000s
	Lens	Professional M16 lens with 4mm focal length
Image	Noise reduction	Support 2D/3D
	Wide dynamic	Support digital
	Auto iris	N/A
Interface	Audio compression	G.711, Support bidirectional half duplex intercom,audio&video synchronization
	Audio interface	1 input, MIC: Selection range -28dB~-36dB, -33dB is recommended. 1 Output, Speaker: 8Ω2W is recommended.
	Network interface	1*RJ45 10/100M adaptive Ethernet port; support RTSP/FTPDPHCP/NTP/UPnP etc
	Extension interface	SD card slot,WIFI
	PTZ	1 vertical motor interface, 1 horizontal motor interface
	Motor interface	N/A
	Alarm I/O	N/A
	WIFI interface	N/A (Extended support)
	Reset interface	Extended 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	42mm*46mm
	Other	Support POE power supply

2. Interface Description



printing number	Pin number	pin assignment	Function
J5	1	IR-CUT	IR-CUT driver
	2	IR-CUT	IR-CUT driver
J1	1	UART0_RXD	Debug UART
	2	UART0_TXD	Debug UART
	3	GND	GND
J6	1	W_LED_GPIO0_4	W_LED_GPIO0_4
	2	R_LED_GPIO2_0	R_LED_GPIO2_0
	3	LED/GPIO6_5	LED/GPIO6_5
	4	GND	GND
	5	IRIN_GPIO1_7	IRIN_GPIO1_7
	6	IO_GPIO6_4	IO_GPIO6_4
J7	1	ETH_LINK_ACT_LED	Ethernet port light (default NC)
	2	ETH_LINK_STA_LED	Ethernet port light
	3	ETHTX+	Network port data sending
	4	ETHTX-	Network port data sending
	5	ETHRX+	Network port data reception
	6	ETHRX-	Network port data reception
	7	GND	GND
	8	12V 输入	12V in
J2	1	MICN	Audio input
	2	AC_IN	
J3	1	SPKN	Speaker output
	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	SD_PWR_EN	WIFI_PDN
	8	GND	GND
	9	WIFI_DN	WIFI_DN
	10	GND	GND
	11	WIFI_DP	WIFI_DP
	12	3V3	3V3
J10	1	+5V_M1	Vertical motor power signal
	2	OUT8	Vertical motor signal
	3	OUT7	Vertical motor signal
	4	OUT6	Vertical motor signal
	5	OUT5	Vertical motor signal
J8	1	+5V_M2	Horizontal motor power signal
	2	OUT1	Horizontal motor signal
	3	OUT2	Horizontal motor signal
	4	OUT3	Horizontal motor signal
	5	OUT4	Horizontal motor signal

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