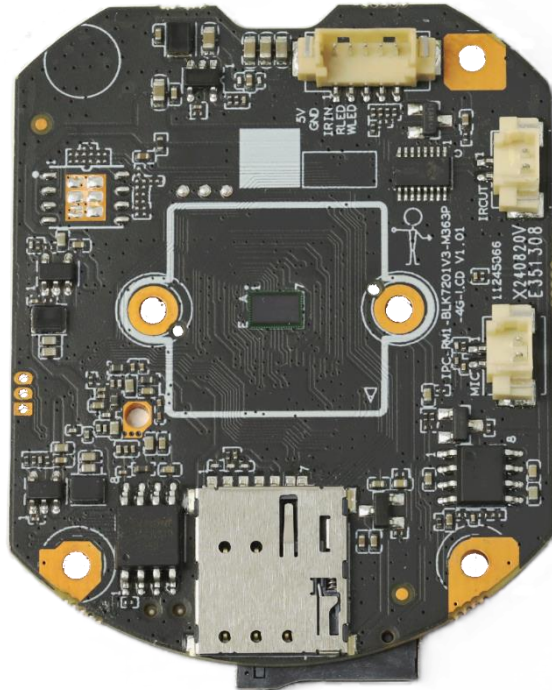


IPG-G2-4GR-V Module Specification

Document Version: 20241108



Introduction

IPG-G2-4GR-V is a 2MP 4G screen PT camera module developed by our company, which supports docking visual screen, supports two-way video intercom, such as WeChat video, supports 4G network transmission of video and audio data, mainly used in high-definition video surveillance cameras.

Main Features



4G Network



Support Screens



Two-way video
talk



Human Detection



PT Control



Mobile Remote



Full-color night
vision



Regional Alert



TF Card Storage



Cloud Storage



H.265AI

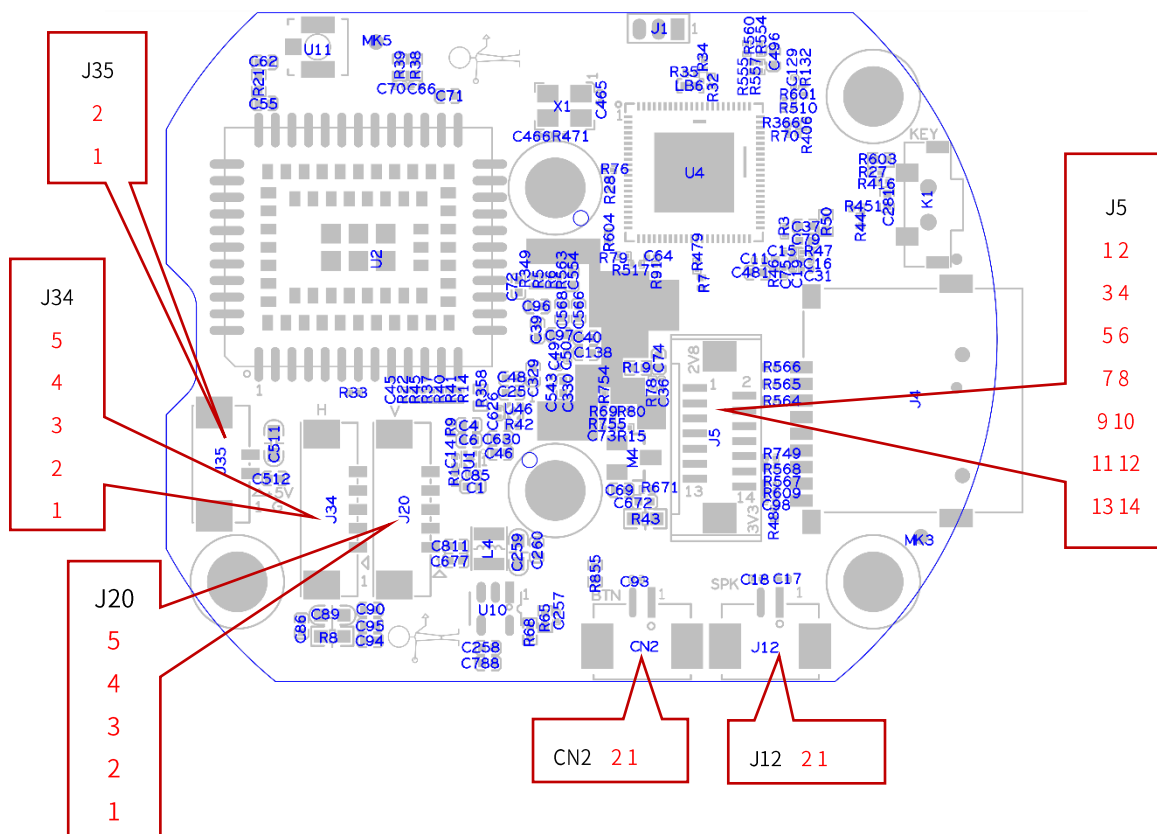
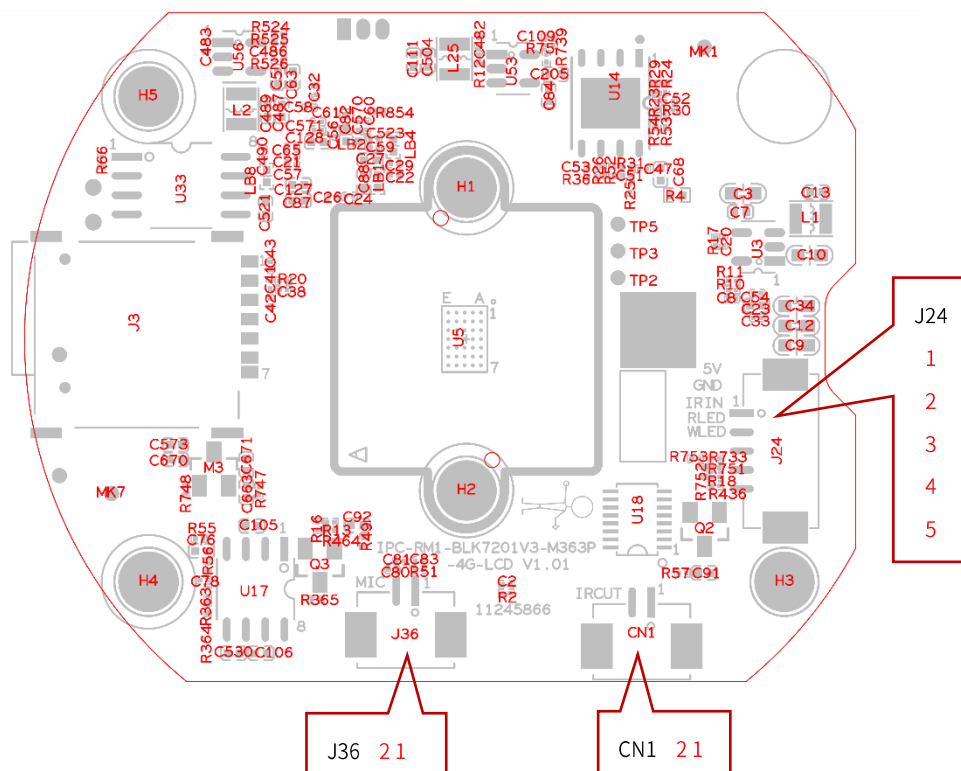
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1. Product Parameters

Model	IPG-G2-4GR-V
System Structure	dual-core 32-bit DSP (GK7201V300) ,pure hard compression ,watch dog
Sensor	1/4" Low illumination CMOS Sensor
Min. Illumination	Color: 0.01Lux @(F1.2,AGC ON); 0 Lux with IR Black/White: 0.001 Lux @ (F1.2,AGC ON),0 Lux with IR
Video Compression	H.265AI
Image Output	Main stream: 1920*1080@12fps; Sub-code stream:800*448@12fps
Shutter	1/50(1/60)s to 1/10,000s
Day&Night	Support IR-CUT(Recommended: 5V standard voltage IR-CUT)
DNR	Support 2D/3D noise reduction
WDR	Support
Audio Compression	G.711A codec standard, support dual voice talkback, audio and video synchronization
Audio Interface	1 channel input, support microphone input; 1 channel output, support speaker output playback
Screen interface	support 2.8/2.4 inch SPI interface RGB screen, resolution is 240*320, vertical screen, other sizes need to be customized
Network Interface	1 self-pop-up SIM card interface, supporting 4G CAT1 network
Signal Interface	1*photoresistor interface, 1*IR-CUT driver interface, support photoresistor input signal and IR-CUT, IR lamp linkage
Motor Interface	1* horizontal motor interface, 1*vertical motor interface
Reset Interface	1*reset interface
Storage Mode	Local TF card, up to 512G; cloud storage
Reliability	Comprehensive lightning protection, in line with national and international standards; 3*24 hours high-temperature test stability and reliability
Smart Alarm	Supporting human detection support to customizing other intelligent functions
Value-added services	Support cloud storage, scene AI (Elderly care, child care) and other value-added services, which need to be activated at the APP side at your own expense
Mobile Monitoring	Support (iOS, Android)
Power Supply	DC5V
Dimension	55mm*44mm

2. Interface Description



Silk Screen Number	Pin Number	Pin Definition	Function
J36	1	MIC_N	Mike signal
	2	MIC_P	Mike signal
CN1	1	IR-CUT	IR-CUT drive signal
	2	IR-CUT	IR-CUT drive signal
J24	1	5V	5V power supply
	2	GND	GND
	3	ADC0_IN	Hard photosensitive input signal
	4	RLED	Infrared light control signal
	5	WLED	White light control signal
J35	1	GND	GND
	2	5V	5V power supply
J34	1	5V	5V power supply
	2	OUT1	Motor drive signal
	3	OUT2	Motor drive signal
	4	OUT3	Motor drive signal
	5	OUT4	Motor drive signal
J20	1	5V	5V power supply
	2	OUT1	Motor drive signal
	3	OUT2	Motor drive signal
	4	OUT3	Motor drive signal
	5	OUT4	Motor drive signal
CN2	1	GND	GND
	2	ADC1_IN	Call/lock screen button signal
J12	1	SPKN	Horn signal
	2	SPKP	Horn signal
J5	1	AVDD	Analog power supply
	2	GND	GND
	3	RST	Reset signal
	4	CS	Chip selection signal
	5	GND	GND
	6	SCL	Clock signals
	7	GND	GND
	8	SDA	Data Signals
	9	GND	GND
	10	TE	Tear effect signal
	11	D/C	Data/command selection
	12	LEDK	Backlit cathode
	13	LEDA	Backlit anode
	14	VCCIO	IO power supply

3. Electrical Parameters

3.1 Absolute Electrical Parameters

Parameter	Description	Min	Max	Unit
Ts	Storage temperature	-40	150	℃
VCC	Power supply voltage	4.5	5.5	V
Static electricity discharge voltage (Air)	TAMB-25℃	-6	6	KV
Static electricity discharge voltage (Contact)	TAMB-25℃	-3	3	KV

3.2 Working Conditions

Parameter	Description	Min	Max	Unit
Ta	Working temperature	-20	65	℃
VCC	Power supply voltage	4.5	5.5	V
VOL	I/O low-level output	0	0.7	V
VOH	I/O high-level output	2.6	3.3	V

4. RF parameters

4.1 RF Output Power

Frequency Band	Max	Min
LTE FDD B1/B3/B5/B8	23dBm +-2dB	< -44dBm
LTE TDD B34/B38/B39/B40/B41	23dBm +-2dB	< -42dBm

4.2 RF Conduction Sensitivity

Frequency Band	RX Sensitivity
LTE FDD B1(10M)	-98.5dBm
LTE FDD B3(10M)	-98.7dBm
LTE FDD B5(10M)	-98.5dBm
LTE FDD B8(10M)	-97.5dBm
LTE TDD B34(10M)	-100.2dBm
LTE TDD B38(10M)	-100dBm
LTE TDD B39(10M)	-99.3dBm
LTE TDD B40(10M)	-100dBm
LTE TDD B41(10M)	-99dBm

4.3 Working Frequency

3GPP Band	TX	RX	Unit
LTE FDD B1	1920~1980	2110~2170	MHz
LTE FDD B3	1710~1785	1805~1880	MHz
LTE FDD B5	824~849	869~894	MHz
LTE FDD B8	880~915	925~960	MHz
LTE TDD B34	2010~2025	2010~2025	MHz
LTE TDD B38	2570~2620	2570~2620	MHz
LTE TDD B39	1880~1920	1880~1920	MHz
LTE TDD B40	2300~2400	2300~2400	MHz
LTE TDD B41	2496~2690	2496~2690	MHz