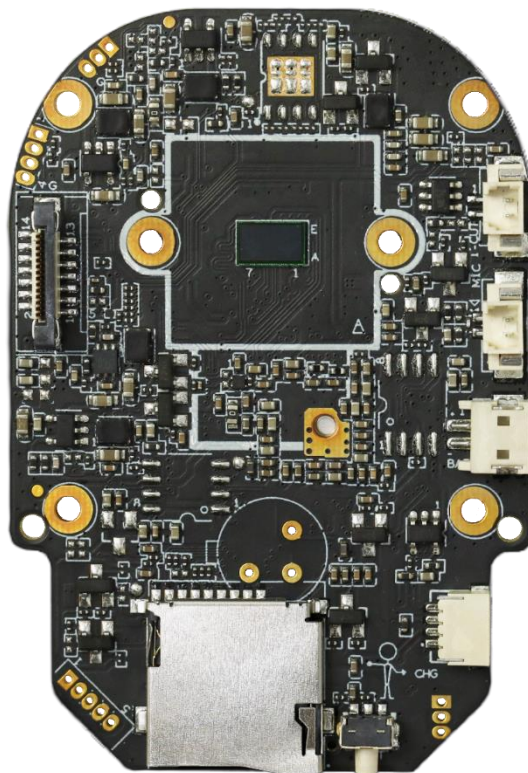


LPG-R4C-4GE-A Module Specification

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Introduction

LPG-R4C-4GE-A is a 4MP AOV Dual-light and full color 4G battery bullet camera module developed by our company. It supports 1 frame recording in 1 second (AOV state) + full frame rate recording (wake-up state). 4G network connection, supporting national standards and some Southeast Asian 4G standards and frequency bands (specific reference to the frequency band support list), lithium battery power supply, mainly used in high-definition video surveillance cameras.

Main Features

- | | | | |
|---|---|--|---|
|  4G Connection |  Remote Wake-up |  HD Picture Quality |  Dual-light and full color |
|  All-day recording |  Two-way Talk |  Human Detection |  Battery Powered |
|  Cloud Storage |  TF Card Storage | | |

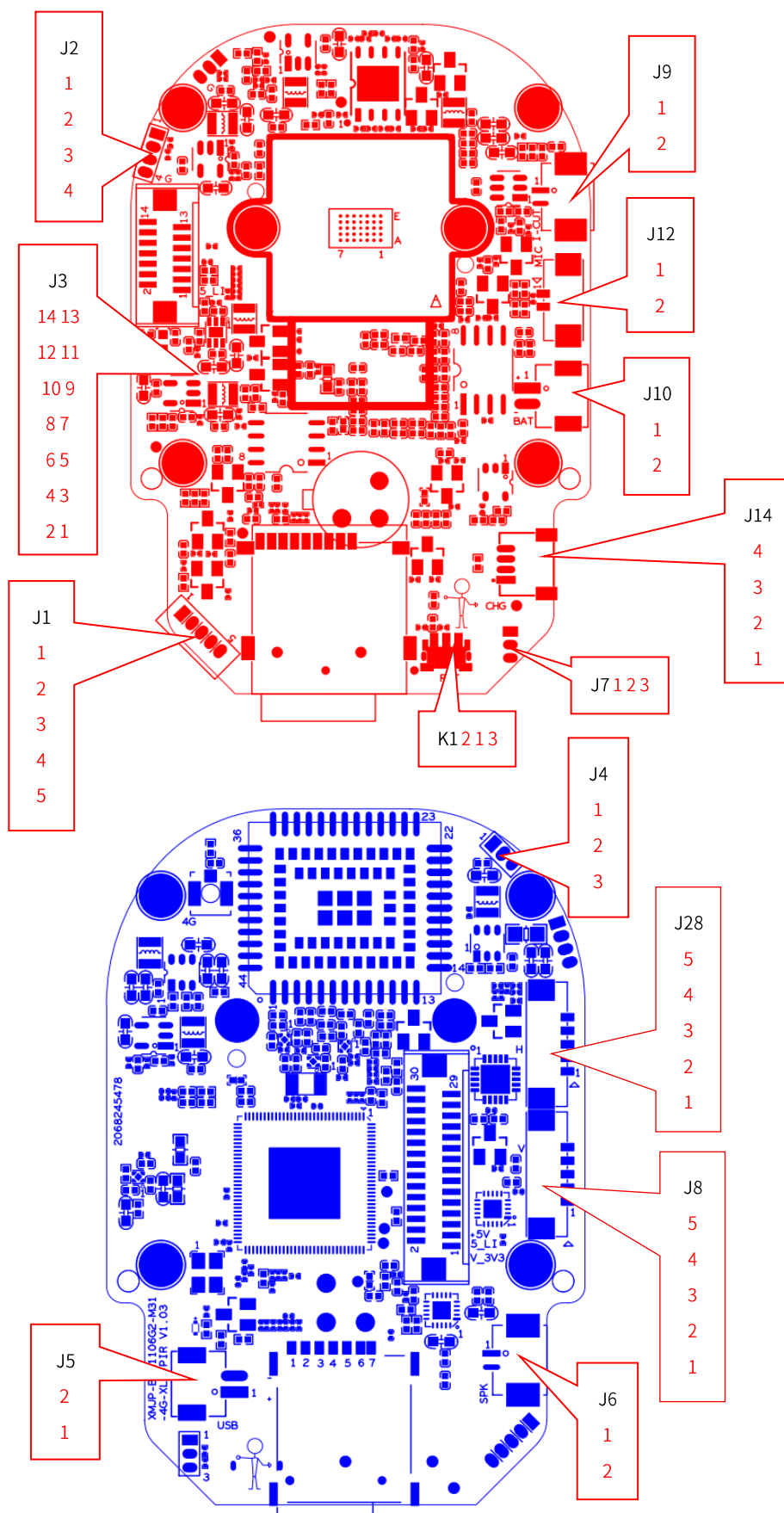
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1. Product Parameters

Model	LPG-R4C-4GE-A
System Structure	dual-core 32-bit DSP, pure hard compression ,watch dog
Sensor	1/3" 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: 2560*1440@12fps ; Sub-code stream: 800*448@12fps
Shutter	1/50(1/60)s to 1/10,000s
Day&Night	Support AI-ISP black light full-color night vision
DNR	Support 2D/3D noise reduction
WDR	Support
Audio Process	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
Network Interface	1*4G interface, support 4G CAT1 network connection
Signal Interface	1*photoresistor interface, 1*IR-CUT driver interface, support photoresistor input signal and IR-CUT IR lamp linkage
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	It supports value-added services such as cloud storage and scene AI (outdoor security), which need to be activated at your own expense on the APP side
Mobile Monitoring	Support (iOS, Android)
Power Supply	4.2V lithium battery power supply
Dimension	66mm*44mm

2. Interface Description



Silk Screen Number	Pin Number	Pin Definition	Function
J3	1	+5V_LI	Battery Voltage
	2	+5V_LI	Battery Voltage
	3	3.3V	3.3V optical power supply
	4	+5V_POWER	+5V_USB Voltage
	5	GND	GND
	6	GND	GND
	7	WLED_EN	White light signal
	8	RLED_EN	Infrared Signal
	9	GND	GND
	10	ADC_IN	Light-sensitive signal
	11	MCU_LED1	Blue Distribution Indicator
	12	LED1	Red Low Battery Indicator
	13	CHG_LED	Charging Indicator
	14	NC	NC
J2	1	LED1	Debugging
	2	UART1_RXD	Serial Receive
	3	UART1_TXD	Serial Transmit
	4	GND	GND
J9	1	OUT1	IRCUT Signal
	2	OUT2	IRCUT Signal
J12	1	MICIN_N	MIC Signal
	2	MICIN_P	MIC Signal
J10	1	+5V_LI	Battery Voltage
	2	GND	GND
K1	1	SW_ON/OFF	Reset button
	2	GND	GND
	3	GND	GND
	4	GND	GND
	5	GND	GND
	6	GND	GND
	7	GND	GND
J14	1	+5V_POWER	+5V_POWER voltage
	2	BAT_EN	Charge Enable
	3	BAT_ADC	Battery Voltage
	4	CHG	Charge Detect
J1	1	+3.3V_MCU	+3.3V power
	2	PC7_SWIO	--
	3	PD1_SWCLK	--
	4	GND	GND

	5	NRST	--
J5	1	+5V_USB	+5V USB power supply
	2	GND	GND
J28	1	+5V_M2	Horizontal motor power supply
	2	4C	Horizontal motor signal
	3	3C	
	4	2C	
	5	1C	
J8	1	+5V_M1	Vertical motor power supply
	2	V_MOTO8	Vertical motor signal
	3	V_MOTO7	
	4	V_MOTO6	
	5	V_MOTO5	
J6	1		
	2	VON	Horn Signal
J7	1	GND	GND
	2	UART1_RXD	Serial Receive
	3	UART1_TXD	Serial Port Transmit

3. Electrical Parameters

3.1 Absolute Electrical Parameters

Parameter	Description	Min	Max	Unit
Ts	Storage temperature	-40	90	℃
VCC	Power supply voltage	-0.3	4.2	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	3.3	4.2	V
VOL	I/O low-level output	0	0.7	V
VOH	I/O high-level output	2.5	3.6	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
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4.2 RF Conduction Sensitivity

Frequency Band	RX Sensitivity
LTE FDD B1(10M)	< -99dBm
LTE FDD B3(10M)	< -99dBm
LTE FDD B5(10M)	< -99dBm
LTE FDD B8(10M)	< -99dBm
LTE TDD B34(10M)	< -100dBm
LTE TDD B38(10M)	< -99dBm
LTE TDD B39(10M)	< -100dBm
LTE TDD B40(10M)	< -99dBm
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	2555~2655	2555~2655	MHz