

LPG-G4-4GQUS Module Specification

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Introduction

LPG-G4-4GQUS is a 4MP 4G battery camera module developed by our company, battery-powered, supporting the 4G standard and frequency band of the American standard, covering North America and some parts of South America (refer to the list of frequency band support for details), mainly used in high-definition video surveillance cameras.

Main Features



4G Connection



HD Picture Quality



PIR Detection



Remote Wakeup



Battery Powered



Infrared Night Vision



Two-way Audio



TF Card Storage



H.265AI



Cloud Storage

Content

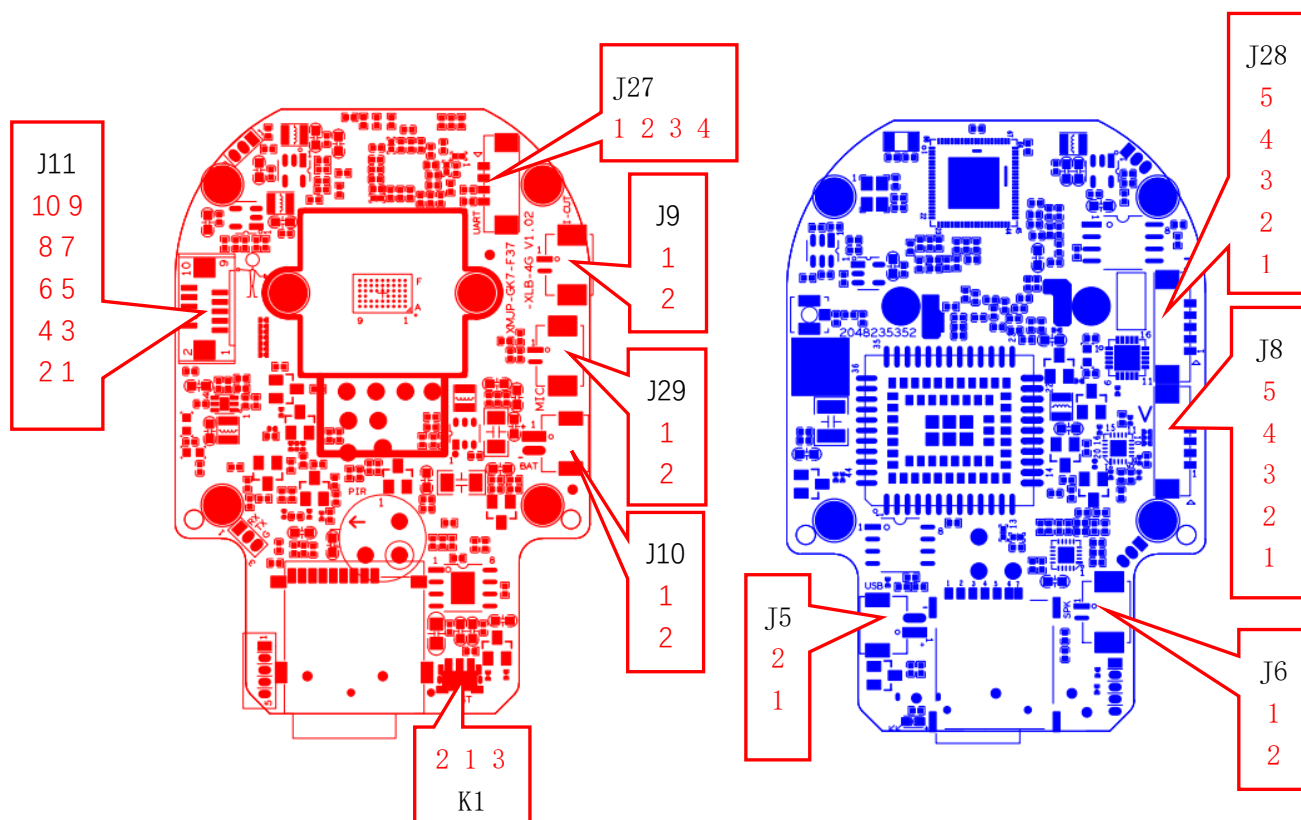
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1. Product Parameters

Model	LPG-G4-4GQUS
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:640*360@12fps
Shutter	1/50(1/60)s to 1/10,000s
Day&Night	Support IR-CUT
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	Support American standard 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 PIR detection, support to customizing other intelligent functions
Value-added services	Support cloud storage, scene AI (outdoor security) 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	4.2V lithium battery power supply
Dimension	44mm*58mm

2. Interface Description

Dimension: 44mm*58mm



Silk Screen Number	Pin Number	Pin Definition	Function
J11	1	+5V_BQ	+5V power supply
	2	+5V_BQ	+5V power supply
	3	3.3V	3.3V
	4	GND	GND
	5	GND	GND
	6	GPIO50	White light signal
	7	RLED_EN	Infrared signal
	8	ADC_IN	Light sensitive signal
	9	MCU_LED1	Blue light distribution indicator
	10	MCU_LED2	Red low battery indicator
J9	1	OUT1	IR CUT signal
	2	OUT2	IR CUT signal
J29	1	MIC_N	MIC signal
	2	MIC_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
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	Horn signal	Horn signal
	2	Horn signal	Horn signal
J2	1	UART_RXD	Serial port receive
	2	UART_TXD	Serial port send
	3	GND	GND
J27	1	3.3V	3.3V
	2	GND	GND
	3	UART_TXD	Serial Transmit
	4	UART_RXD	Serial Receive

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	2.6	3.3	V

4. RF parameters

4.1 RF Output Power

Frequency Band	Max	Min
LTE FDD B2/B4/B5/B12/B13/B66	23dBm +-2dB	< -44dBm

4.2 RF Conduction Sensitivity

Frequency Band	RX Sensitivity
LTE FDD B2(10MHz)	< -94.3dBm
LTE FDD B4(10MHz)	< -96.3dBm
LTE FDD B5(10MHz)	< -94.3dBm
LTE FDD B12(10MHz)	< -93.3dBm
LTE FDD B13(10MHz)	< -93.3dBm
LTE FDD B66(10MHz)	< -95.8dBm

4.3 Working Frequency

Frequency Band	TX	RX	Unit
LTE FDD B2	1850~1910	1930~1990	MHz
LTE FDD B4	1710~1755	1805~1880	MHz
LTE FDD B5	824~849	869~894	MHz
LTE FDD B12	699~716	729~746	MHz
LTE FDD B13	777~787	746~756	MHz
LTE FDD B66	1710~1780	2110~2180	MHz