

LPG-G4-4GQ Module Specification

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Introduction

LPG-G4-4GQ is an 4MP low-power 4G dome module developed by our company, battery-powered, supporting national standard and 4G standard and frequency band in Southeast Asia(Refer to the band support list for details), mainly applied to HD 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

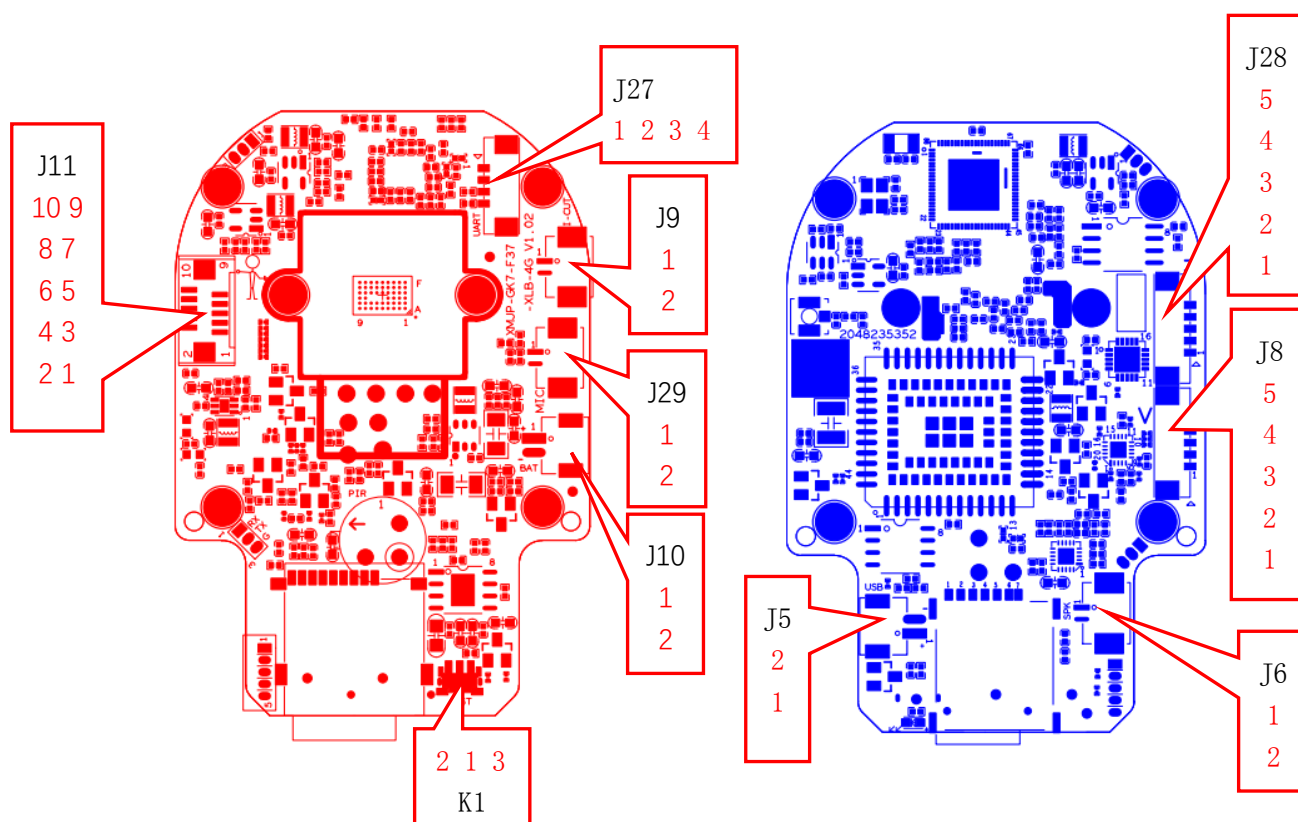
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1. Product Parameters

Model	LPG-G4-4GQ
System Structure	dual-core 32-bit DSP (GK7202V300) ,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 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 128G; 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
Functions	It supports remote monitoring of mobile client, push message after alarm of human detection, and supports MJPEG capture;
ONVIF	support
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 power supply
	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	°C
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 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)	< -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