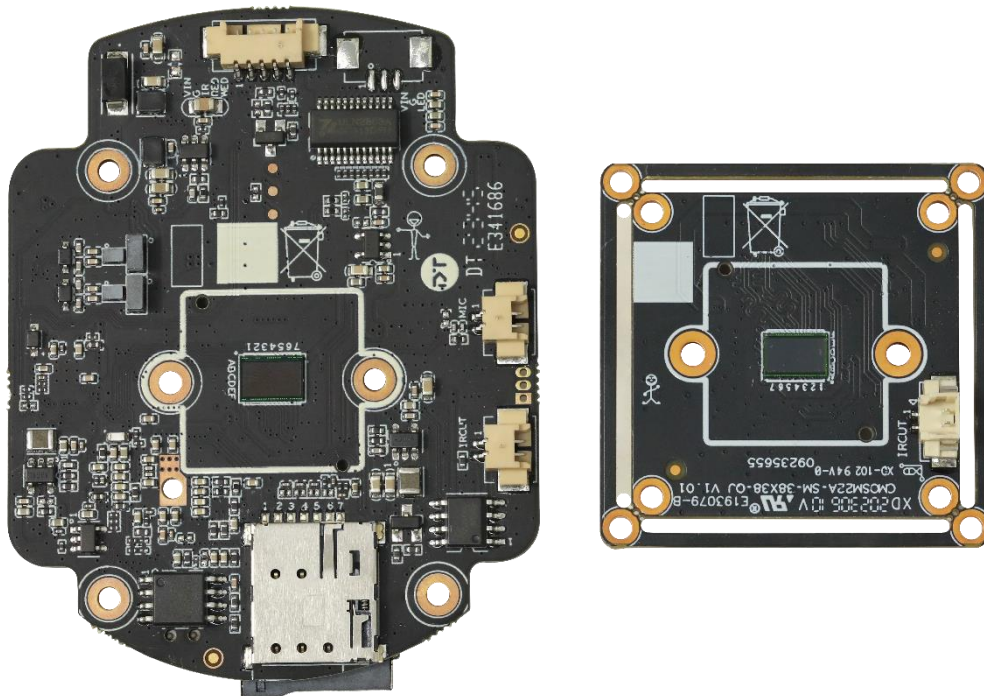


IPG-X6M-4GEQ Module Specification

Document Version: 20231211



Introduction

IPG-X6M-WEQ is a 6MP 4G Bullet&PT Integrated Camera Module developed by our company, mainly used in HD video surveillance cameras.

Main Features

- | | | | |
|---|---|--|---|
|  4G connection |  One Tops Two |  Two-way Monitoring |  Dual-screen Preview |
|  Bullet&PT Linkage |  Point and See |  Human Detection |  Human Tracking |
|  H.265AI |  Cloud Storage |  TF Card Storage | |

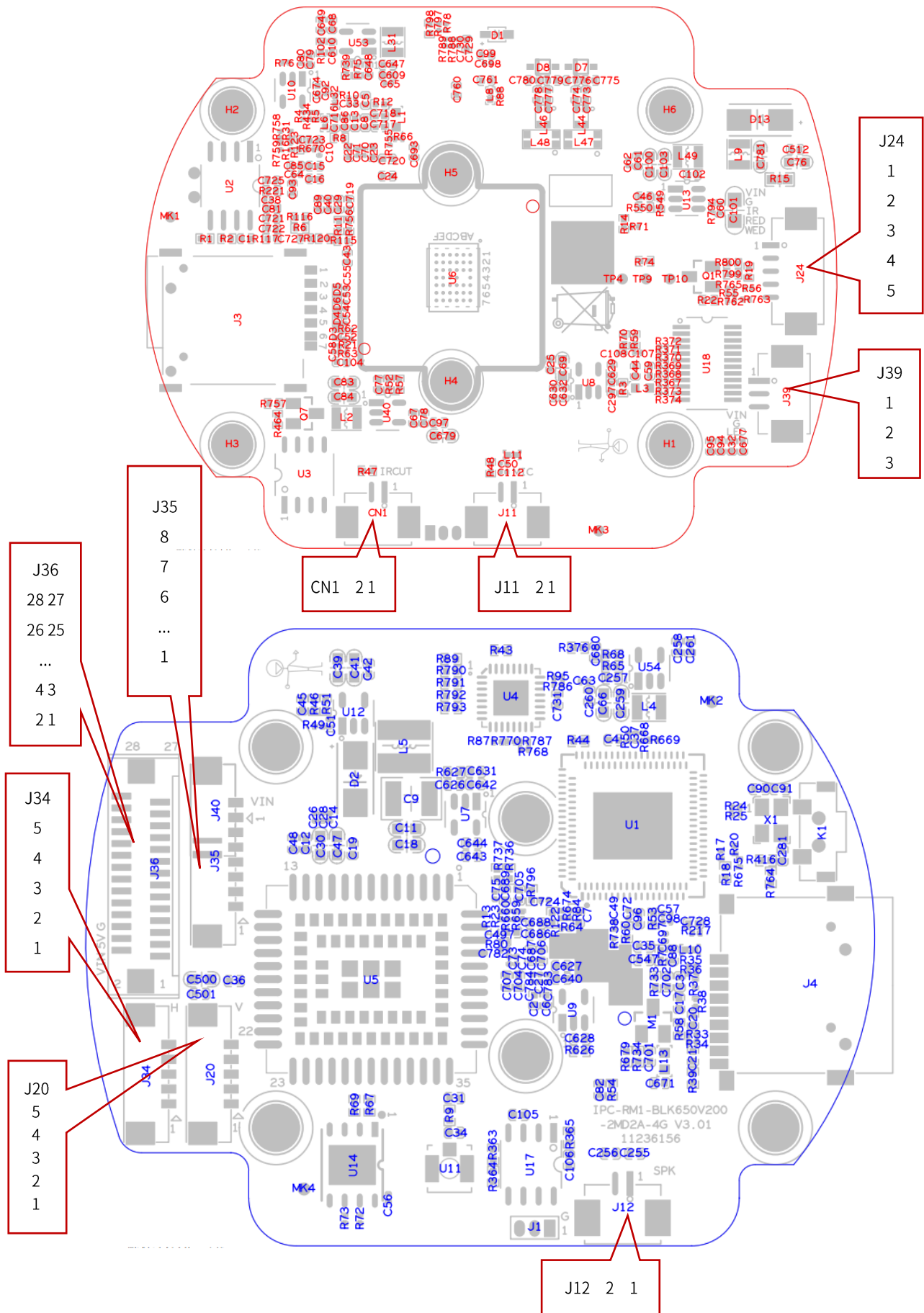
Content

1. Product Parameters	3
2. Interface Description	4
3. Electrical Parameters	8
3.1 Absolute Electrical Parameters	8
3.2 Working Conditions	8
4. RF parameters	8
4.1 RF Output Power	8
4.2 RF Conduction Sensitivity	8
4.3 Working Frequency	8

1. Product Parameters

Model	IPG-X6M-4GEQ
System Structure	dual-core 32-bit DSP (XM650V200) ,pure hard compression ,watch dog
Sensor	2*1/2.9" High-performance 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: 2304*2592@12fps; Sub-code stream:640*720@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 human 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	DC12V
Dimension	52mm*67mm+38mm*38mm

2. Interface Description



Silk Screen Number	Pin Number	Pin Definition	Function
J36	1	VCC_IN	12V power supply
	2		
	3	5V	5V power supply
	4		
	5	GND	GND
	6		
	7	ADC1_IN/LED	Hard photosensitive light/indicator
	8	RLED	Infrared light control signal
	9	WLED	White light control signal
	10	GND	GND
	11	IRCUTA	IRCUT drive
	12	IRCUTB	
	13	GND	GND
	14	SCL	IIC signal
	15	SDA	
	16	RST	Sensor reset
	17	GND	GND
	18	SEN0_MCLK	SENSOR-related signals
	19	GND	
	20	SEN_CLK0N	
	21	SEN_CLK0P	
	22	GND	
	23	SEN_D0N	
	24	SEN_D0P	
	25	GND	
	26	SEN_D1N	
	27	SEN_D1P	
	28	GND	
J20	1	5V	Vertical motor interface
	2	OUT8	
	3	OUT7	
	4	OUT6	
	5	OUT5	
J34	1	5V	Horizontal motor interface
	2	OUT1	
	3	OUT2	
	4	OUT3	
	5	OUT4	
J12	1	SPKN	Audio output signal
	2	SPKP	
J35	1	LINK/KEY_SET	

Silk Screen Number	Pin Number	Pin Definition	Function
J36	1	VCC_IN	12V
	2		
	3	5V	5V
	4		
	5	GND	GND
	6		
	7	LED	Light
	8	RLED	Infrared light control signal
	9	WLED	White light control signal
	10	GND	GND
	11	IRCUTA	IRCUT drive
	12	IRCUTB	
	13	GND	GND
	14	SCL	IIC signal
	15	SDA	
	16	RST	Sensor reset
	17	GND	GND
	18	SEN0_MCLK	SENSOR-related signals
	19	GND	
	20	SEN_CLK0N	
	21	SEN_CLK0P	
	22	GND	
	23	SEN_D0N	
	24	SEN_D0P	
	25	GND	
	26	SEN_D1N	
	27	SEN_D1P	
	28	GND	
J24	1	VCC_IN	12V
	2	GND	GND
	3	RLED	Infrared light control signal
	4	WLED	White light control signal
J39	1	VCC_IN	12V
	2	GND	GND
	3	LED	Light
J1	1	OUT1	IRCUT
	2	OUT1	

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℃	-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	9.6	14.4	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 FDD 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 FDD B34(10M)	< -100dBm
LTE FDD B38(10M)	< -99dBm
LTE FDD B39(10M)	< -100dBm
LTE FDD B40(10M)	< -99dBm
LTE FDD 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 FDD B34	2010~2025	2010~2025	MHz
LTE FDD B38	2570~2620	2570~2620	MHz
LTE FDD B39	1880~1920	1880~1920	MHz
LTE FDD B40	2300~2400	2300~2400	MHz

LTE FDD B41	2555~2655	2555~2655	MHz
-------------	-----------	-----------	-----