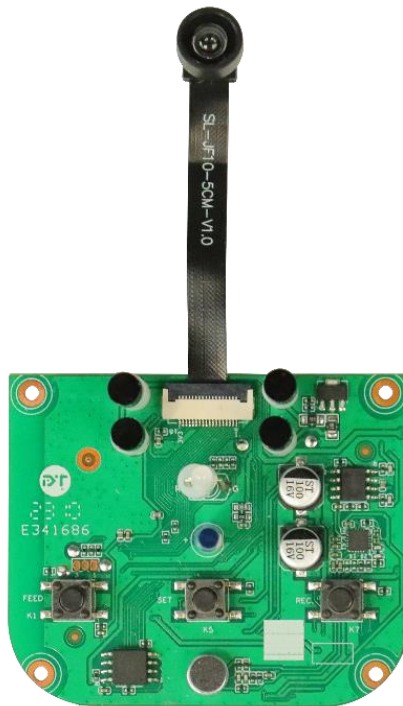


IOTG-P1WB-LS3 Module Specification

Document Version : 20230719



Introduction

IOTG-P1WB-LS3 is an 0.3MP video pet feeder module developed by our company, which supports remote timing and quantitative feeding, mainly used in smart pet feeders.

Main Features



Bluetooth Network Configuration



HD Picture Quality



One-touch Feeding



Video Recording



Remote Feeding



Voice Interaction



Voice Playback



Infrared Night Vision



H.265AI



Cloud Storage

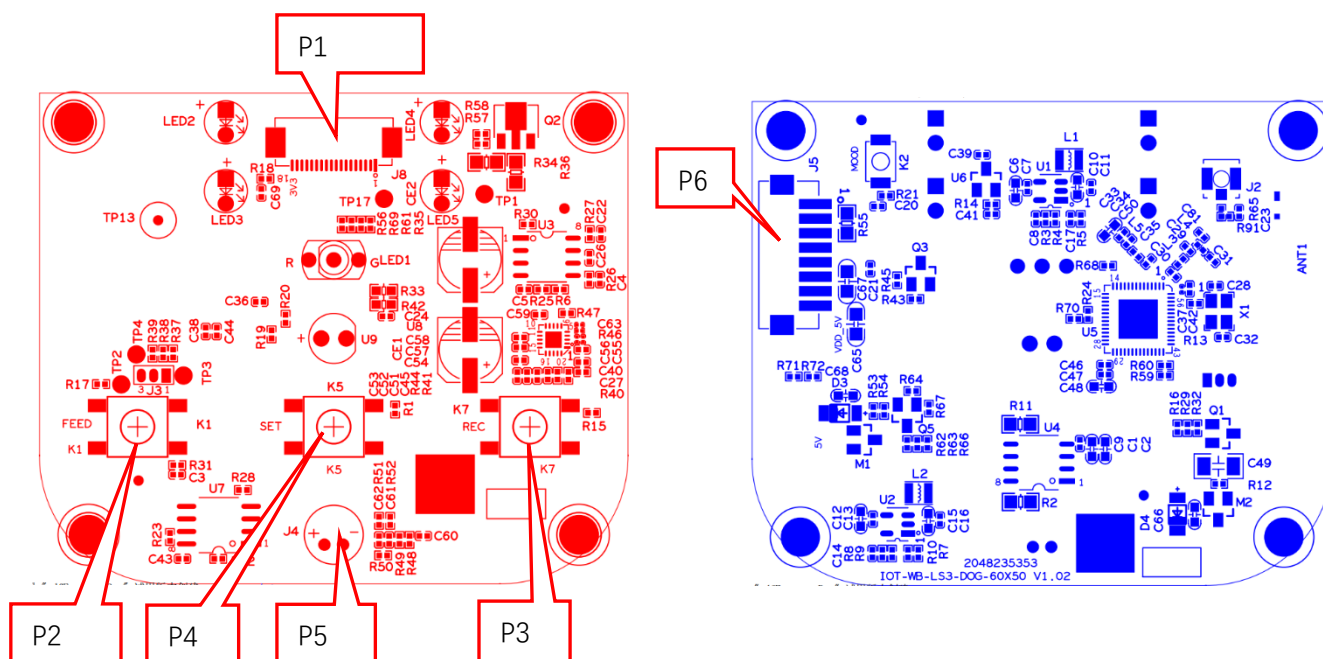
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1. Product Parameters

Model	IOTG-P1WB-LS3
System Structure	dual-core 32-bit DSP, pure hard compression ,watch dog
Sensor	1/6.5" 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	640*480@6fps
Lens	0.3MP - (FPC-5cm) 18PIN- (GC0308-591002) filter
Shutter	1/50(1/60)s to 1/10,000s
Day&Night	Support 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
Network Interface	1*Wi-Fi antenna interface to support wireless network connection
Signal Interface	1*photoresistor interface, 1*IR-CUT driver interface, support photoresistor input signal and IR-CUT, IR lamp linkage
Button	1*Feed button, 1*Setup button, 1*Record button
Storage Mode	Cloud storage
Reliability	Comprehensive lightning protection, in line with national and international standards; 3*24 hours high-temperature test stability and reliability
Functions	It supports remote monitoring of mobile client, push message after alarm of human detection, and supports MJPEG capture;
Mobile Monitoring	Support (iOS, Android)
Power Supply	DC5V
Dimension	60mm*50mm

2. Interface Description



Marking	Screen number	Pin number	Pin definition	function
P1	J8	1	VI_DATA1	Sensor data
		2	VI_DATA0	Sensor data
		3	GND	earth
		4	VI_CLK	Sensor pixel clock
		5	GND	earth
		6	SENSOR_CLK	Sensor master clock
		7	VI_HS	Row synchronization
		8	VI_VS	Frame synchronization
		9	VI_DATA2	Sensor data
		10	VI_DATA3	Sensor data
		11	VI_DATA4	Sensor data
		12	VI_DATA5	Sensor data
		13	VI_DATA6	Sensor data
		14	VI_DATA7	Sensor data
		15	SENSOR_RSTN	Sensor reset
		16	I2C0_SCL	I2C clock
		17	I2C0_SDA	I2C data
		18	3V3	3.3V power supply
P2	K1	1	FEED	Feed buttons
P3	K7	1	REC	Record button
P4	K5	1	SET	Reset button
P5	J4	1	MIC_P1	MIC+
		2	MIC_N1	MIC-
P6	J5	1	SPKP	SPK+
		2	SPKN	SPK-

		3	REVERSE	Motor reversal signal
		4	FORWARD	Motor forward signal
		5	MOT_DET	Feed the heartbeat
		6	GND	earth
		7	VBAT	Dry battery power
		8	VDD_5V	Adapter power

3. Electrical Parameters

3.1 Absolute Electrical Parameters

Parameter	Description	Min	Max	Unit
Ts	Storage temperature	-20	90	℃
VCC	Power supply voltage	3.3	5	V
Static electricity discharge voltage (Air)	TAMB-25℃	-4	8	KV
Static electricity discharge voltage (Contact)	TAMB-25℃	-4	8	KV

3.2 Working Conditions

Parameter	Description	Min	Max	Unit
Ta	Working temperature	-10	60	℃
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

3.3 RF power consumption

Working mode	Description		Peak (mA)
Active (RF operation)	TX	802.11b, 1 Mbps, @21 dBm	340
		802.11g, 54 Mbps, @19 dBm	291
		802.11n, HT20, MCS7, @18.5 dBm	283
		802.11n, HT40, MCS7, @18 dBm	286
	RX	802.11b/g/n, HT20	88
		802.11n, HT40	91

4. Wi-Fi RF performance

4.1 TX Performance

Mode	Speed	Power	EVM
802.11b	1Mbps	21dBm	-24.5dB
	11Mbps	21dBm	-24.5dB
802.11g	6Mbps	20.5dBm	-21.5dB
	54Mbps	19dBm	-28dB
802.11n	HT20/MCS0	19.5dBm	-23dB
	HT20/MCS7	18.5dBm	-29.5dB
	HT40/MCS0	19.5dBm	-23dB
	HT40/MCS7	18dBm	-29.5dB

4.2 RX Performance

Mode	Speed	Receive sensitivity
802.11b	1Mbps	-98.4dBm
	11Mbps	-88.6dBm
802.11g	6Mbps	-93.2dBm
	54Mbps	-76.5dBm
802.11n	HT20/MCS0	-92.6dBm
	HT20/MCS7	-74.2dBm
	HT40/MCS0	-90dBm
	HT40/MCS7	-71.4dBm

5. Bluetooth RF performance

5.1 TX Performance

Parameter	Speed	Minimum	Typical value	Maximum	Unit
Transmit Power	1Mbps	-24	0	21	dBm
	2Mbps	-24	0	21	dBm
	125Kbps	-24	0	21	dBm
	500Kbps	-24	0	21	dBm

5.2 RX Performance

Parameter	Speed	Minimum	Typical value	Maximum	Unit
Sensitivity @30.8% PER	1Mbps	—	-97.5	—	dBm
	2Mbps	—	-93.5	—	dBm
	125Kbps	—	-104.5	—	dBm
	500Kbps	—	-101	—	dBm
Maximum received signal @30.8% PER	1Mbps	—	8	—	dBm
	2Mbps	—	3	—	dBm
	125Kbps	—	8	—	dBm
	500Kbps	—	8	—	dBm