



Shenzhen LD Robot Co., Ltd.

PRODUCT SPECIFICATION

Product Name	:	TOF IDC3224
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Supply P/N	:	
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Date	:	2019-08-05
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File No	:	
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深圳乐动机器人有限公司

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SPECIFICATION UPDAGE HISTORY

Version	Revision Date	Revision Content	Reviser	Check
1.0	2017-08-01	Primary Release	Jack Guo	Jamson shen
2.0	2019-08-05	Pass EMC、ROHS、REACH	Jack Guo	Weyne Chen

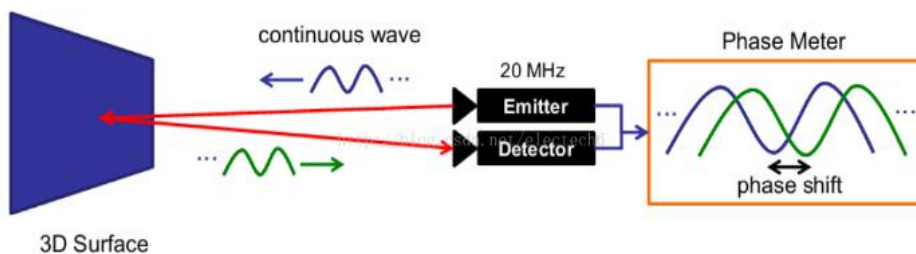
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1. DESCRIPTION

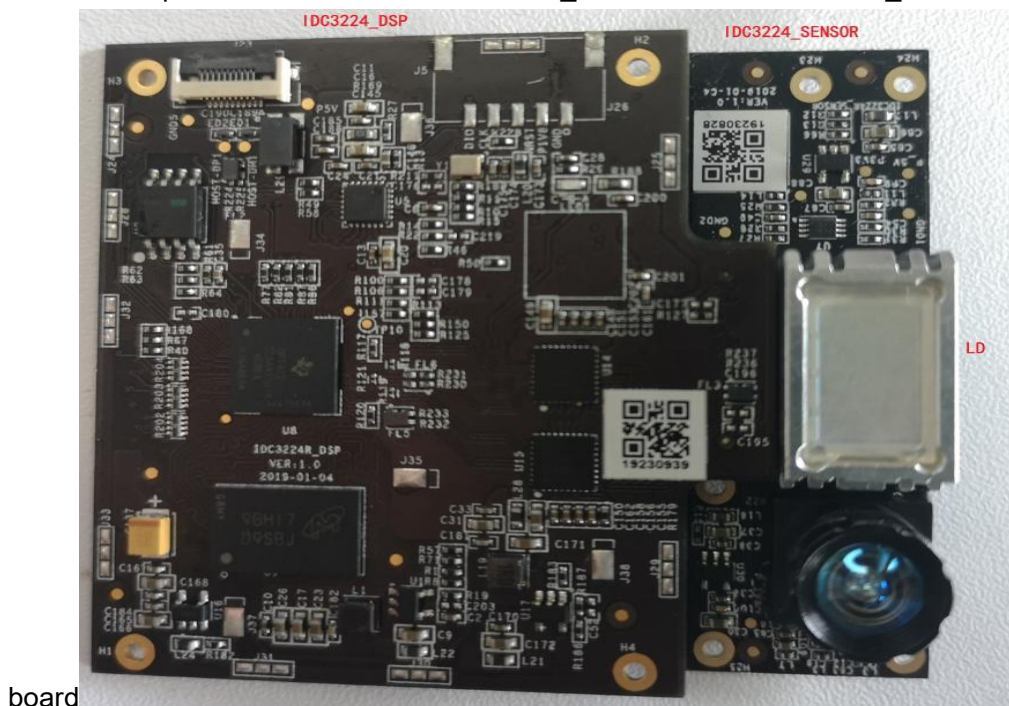
IDC3224 is a high-resolution (320 * 240) 3D depth camera developed by Shenzhen LDRobot Co., Ltd. This module can realize the measurement of visual point cloud information and perform three-dimensional environment modeling. It can be widely used in map construction (SLAM), robot positioning and navigation, and smart device obstacle avoidance. Customers can read deep point cloud data from the USB interface.

The main principle of the ranging module is: The principle of ranging is the TOF phase method ranging principle. Modulated LD on IDC3224_SENSOR board emits infrared laser signal (850nm). After the laser signal is irradiated on the target object, a reflection spot is generated. After the reflection spot passes through a set of optical lenses, raw data is collected by the image of the SENSOR sensor, processed by the IDC3224_DSP board, and the raw data is converted into depth data and confidence.



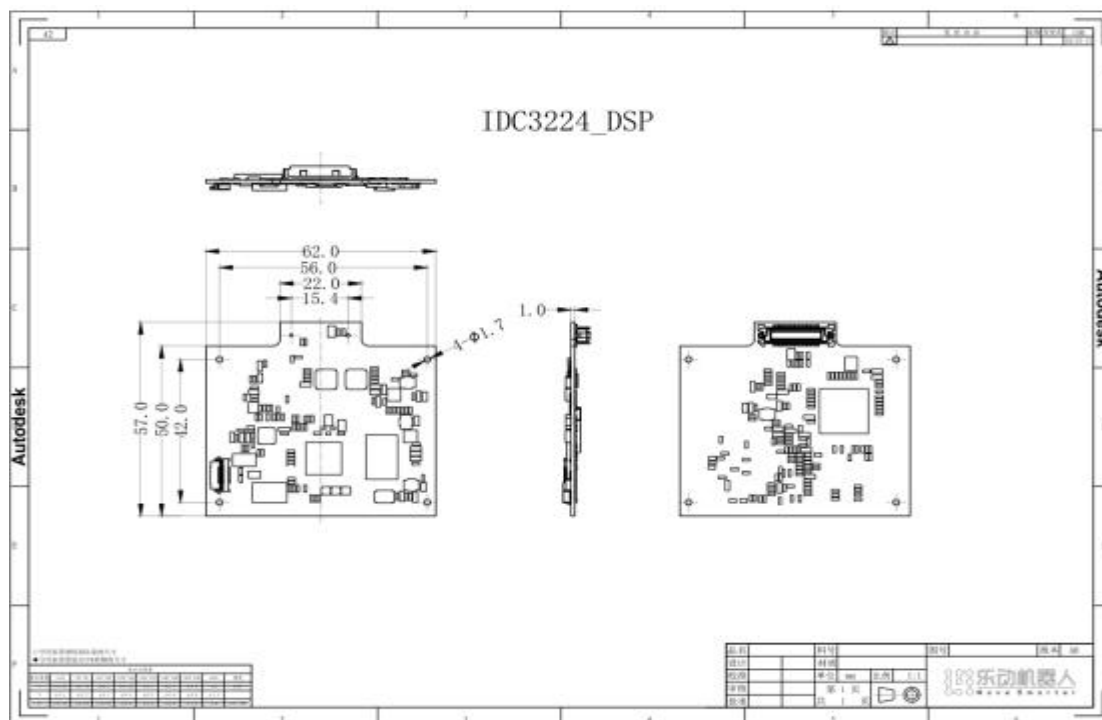
1-1 Technical principle

IDC3224 depth camera consists of IDC3224_DSP board and IDC3224_SENSOR

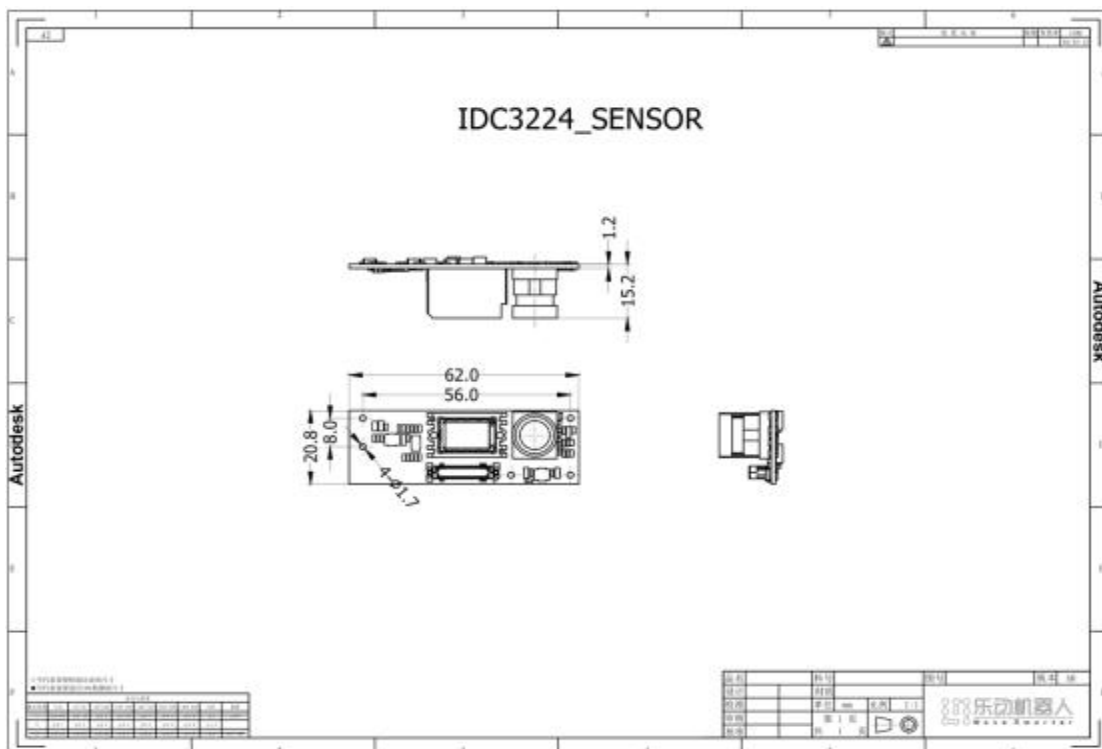


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2. DRAWING



2-1 IDC3224_DSP Drawings



2-2 IDC3224_SENSOR Drawings

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3. SPECIFICATIONS

Parameters	Units	Range	Note
Dementions	mm	62.0*57.0*1.0	
Operating voltage	V	5.0 ± 0.25	
Power consumption	W	4.22 ± 0.5	
Resolution		15 μ m,320*240	Stable work
Aperture angle	°	90*74.3*57.9	D*H*V
Measurable distance	m	0.2-4	Adjustable
Accuracy	%	5	
Frame rate	fps	< 33.3333	

4. INTERFACE

Interface	Pin	Signal	
J23	1、2、3、4	VCC	
	5	USB DM	
	6	USB DP	
	7、8、9、10	GND	

5. WORKING ENVIRONMENT

Parameters	Units	Range(Value)	Note
Ambient operating humidity	%	0~80	
Ambient operating temperature	℃	-5~45	When working in the system, ensure that the IC surface temperature is below 70 ° C
Operating system		Windows 10/Linux	

6. SAFETY

Parameters	Description
ROHS	ROHS 10 项
REACH	REACH 191 项

7. PACKING AND SHIPPING

Parameters	Description	Note
Package	Static bag	
Anti-impact with package	Maximum height 80 cm	
Storage temperature	-10~60℃	
Anti-impact bare	Precision optical instrument , DO NOT DROP	