

Stereo camera  
**ISC-100VM / ISC-100XC**  
Spec sheet

## Safety Instructions

When using your equipment, basic safety precautions should always be followed, including the following:

Read and understand all instructions before using.

1. Keep foreign objects away from this product.

Do not insert foreign objects into the product.

Doing so may cause an electric shock or fire or fail may result.

2. Do not damage the power cable.

Do not forcibly bend or pull the power cable or place heavy objects on the cable.

Do not operate equipment with a damaged cable. If the Product is used again without being reconditioned, an electric shock or fire or fail may result.

3 Do not disassemble, repair this product.

Never attempt to disassemble, repair, or alter the product on any occasion. Failure to follow this instruction may cause an electric shock or fire or fail.

## 1. Introduction

This material is based on information from Minato and ITDLab.

ISC-100VM and ISC-100XC are produced by Minato Advanced Technologies Inc. based on ITDLab Corporation's technology

## 2. Specification

### 2-1. characteristic

#### ISC-100VM

Item		ISC-100VM (0.3M pixel)
Image sensor		mono MT9V024: On Semiconductor
Base length		100mm
Dynamic range		100dB in HDR mode
Sensor resolution		752 X 480
Effective resolution		640 X 480
Effective angle		30° /50° /83° (factory setting)
Detection method		SRIM method (Stereo Range Imager)
Output rate		60fps x 2image (raw and parallax)
Ranging area	8020 (Telephoto)	1.0m~60m
	4020 (Standard)	0.5m~30m
	2020 (Wide)	0.5m~15m
Distance accuracy		±10% on 40m/20m/10m (Telephoto/Standard/wide)
IP standard		IP69K (Plan: available in 2020)
Available OS		Windows10、Linux (Ubuntu、Rasbian)
Feature		Auto calibration, Switchable between parallax and raw
Interface		USB2.0 (Raw data, Parallax data)
Power		5V (USB BUS powered) 3W

## ISC-100XC

Item		ISC-100XC (1.0M pixel)
Image sensor		Color IMX224: SONY (mono image output from USB I/F)
Base length		100mm
Dynamic range		67dB
Sensor resolution		1,280 X 960
Effective resolution		1,024 X 720
Effective angle		30° /50° /83° (factory setting)
Detection method		SRIM method (Stereo Range Imager)
Output rate		60fps x 2image (raw and parallax)
Ranging area	8020 (Telephoto)	2m~100m
	4020 (Standard)	1m~50m
	2020 (Wide)	1m~25m
Distance accuracy		±10% on 80m/40m/20m (Telephoto/Standard/wide)
IP standard		IP69K (Plan: available in 2020)
Available OS		Windows10、Linux (Ubuntu、Rasbian)
Feature		Auto calibration, Switchable between parallax and raw
Interface		USB3.0 (Raw data, Parallax data)
Power		5V (USB BUS powered) 8.5W

## 2-2. Interface

Item	contents	
Interface	ISC-100VM	USB 2.0
	ISC-100XC	USB 3.0
USB connector	USB3.0 MicroB (Camera side)	
USB cable	USB cable with cap for waterproof and dust proof	

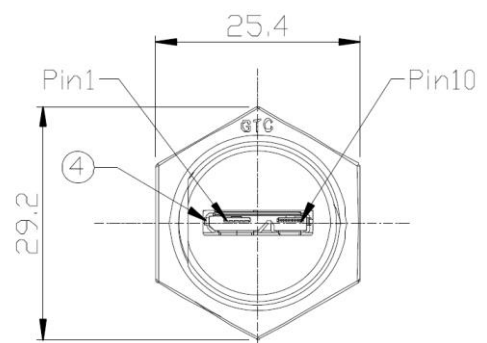
## I/O terminal(ISC-100VM)

Terminal No	Signal	note
1	VBUS	
2	D-	
3	D+	
4	ID	Not used
5	GND	
6	TX-	Not used
7	TX+	Not used
8	GND	
9	RX-	Not used
10	RX+	Not used

## I/O terminal(ISC-100XC)

Terminal No	Signal	note
1	VBUS	
2	D-	
3	D+	
4	ID	Not used
5	GND	
6	TX-	
7	TX+	
8	GND	
9	RX-	
10	RX+	

## USB3.0 Micro-B connector standard



Connector visual

**2—3. Lens specification****ISC-100VM**

No	Item		Wide	Standard	Telephoto
1	F value		2.0	2.0	2.0
2	Focus length (mm)		2.0	4.0	8.0
3	Lens angle	H	125.3°	68.8°	34.6°
		V	97.7°	51.0°	25.5°
		D	148.2°	80.0°	44.5°

\*Lens specifications are subject to change without notice.

**ISC-100XC**

No	Item		Wide	Standard	Telephoto
1	F value		2.0	2.0	2.0
2	Focus length (mm)		2.0	4.0	8.0
3	Lens angle	H	120°	67°	35°
		V	88°	50°	26°
		D	148.2°	80.0°	44.5°

\*Lens specifications are subject to change without notice.

**2—4. Structure**

Item		Content	
Size		168.8(W) x51.2(H)x52.2(D)mm (without USB cable)	
Weight	ISC-100VM	450g	
	ISC-100XC	450g	

**3. Rating****3-1. Condition**

Item	Content
Operation temperature	-10°C~+70°C (No condensation)
Storage temperature	-40°C~+85°C (No condensation)
Vibration resistance	4G (Plan)

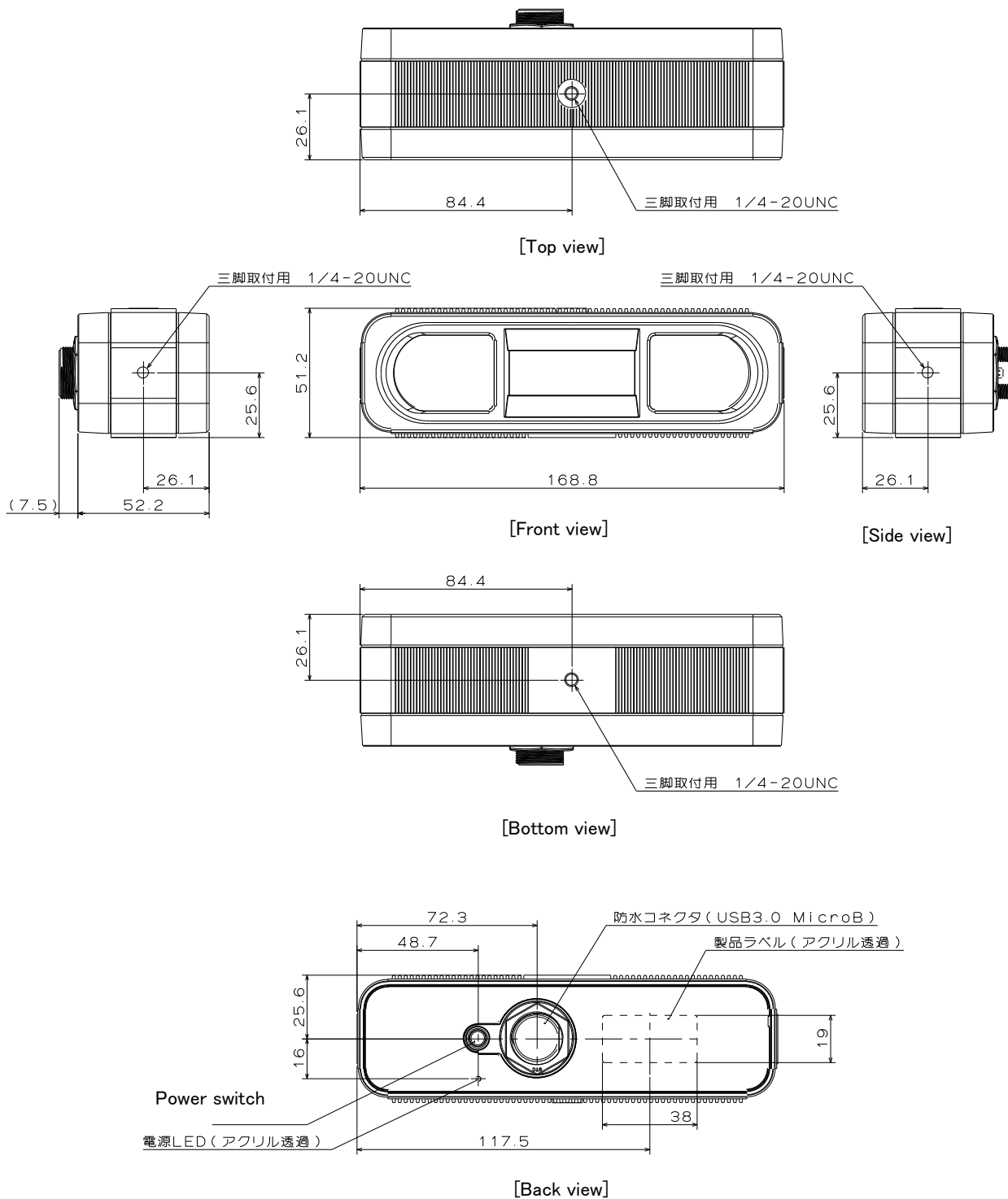
**3-2. DC characteristic**

Item	Content	
Voltage	ISC-100VM	DC 5V
	ISC-100XC	DC 5V
Current	ISC-100VM	600mA
	ISC-100XC	1.7A
Power consumption	ISC-100VM	3W
	ISC-100XC	8.5W
Power supply	ISC-100VM	USB(BUS powered)
	ISC-100XC	USB(BUS powered)

## 4. Dimensions

unit (mm)

### ISC-100VM/XC (Common)





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