

# DIGITAL VIDEO OUTPUT CAMERA

## ARTCAM-185IMX-HD3

# INSTRUCTION BOOKLET

2.3M Pixels    ARTCAM-185IMX-HD3

**ARTRAY**  
ARTRAY CO., LTD.

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# 1. Attention

## ■ About this Manual

1. Before using the camera, please read this manual thoroughly.
2. Please keep this manual reachable and always refer to the contents when needed.
3. Please contact us if the manual is lost or damaged. We will provide a replacement.
4. We cannot guarantee the safety of improper uses of the camera.
5. For your safety, please follow the directions of this manual.
6. All contents are subject to change.
7. Images in this manual may have been simplified to be easier comprehended.
8. Please contact us if you find any unclear points or mistakes in this manual.
9. Quoting, copying or altering some or all parts of the manual without our permission is prohibited.
10. We are not responsible for any lost or damages on your profits due to the use of our products.
11. Please understand that our oversea branches do not provide maintenance or repair services.

## ■ About the Icons

To keep the safety of the user, other people and their properties, please pay attention to the following icons.



### Warning

If the user fails to follow the instruction, serious injury or death may occur.



### Caution

fails to follow the instruction, physical injury on human or damages on hardware may occur.

■ For Safe Use



## Warning

● In following circumstances, please stop using the product and turn off the power immediately to prevent the risks of fires and electric shocks. If the product is defective, please contact us for repair or exchange. For your safety, please do not disassemble, modify or repair the camera on your own.

Please stop using the product and turn off the power immediately when:

- The product becomes smoky or gets extremely hot on the surface, or makes unusual smells or sounds.
  - Foreign material or water gets into the product.
  - The product falls and becomes damaged.
- Do not place the product on unstable surfaces. The product may be fallen and people may get hurt.



## Caution

- Do not expose the product to steam or fumes to avoid electric shocks and fires.
- Do not leave the product in high temperature places such as inside of vehicles or under direct sunlight. High temperature may cause damages to the camera, or even cause fires.
- Do not cover the product with cloth or other materials. The product may get extremely hot and the heat may cause deformations on the parts or even cause fires.
- Please avoid dropping or shocking the product as the product may be damaged.
- Do not touch the cable with a wet hand. Such action may cause electric shocks.
- Please avoid continuously contacting the surface of the camera to your skin when the camera is being used. The surface temperature of the camera may cause burns.

■ Other Notices

- Please do not use the camera under strong lights such as sun light for a long period. Also, please do not expose the camera under strong lights even when the product is not being used because the sensor might be damaged.

#### Maintenance

- Wipe the dirt on surface with soft cloth or tissue paper. Do not use alcohol, thinner or benzene to avoid damaging the surface paints.

#### Electro Magnetic Interference

- The camera may interference with electronic devices such as TV and radio. Please do not place the camera next to such equipment.

#### ■ Export Control

The Government of Japan controls military sensitive goods and technologies including relevant dual-use goods and technologies.

This product is a Catch-all Control item subject to the Foreign Exchange and Foreign Trade Act and its relevant legislations. Except for exporting to the 26 white countries designated in the Cabinet Order, export licenses are required if the products are going to be used for military use or if the end user of the product is related to all kinds of military activities. If your circumstances cause the need to apply export licenses, please notify us before you place orders. Also, please notify us in advance if the end users or purposes of use change after the purchase and thus cause the need to apply export licenses.

\* The 26 white countries not under the UNSC Arms Embargo:

Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxemburg, Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom, and United States

About the Japanese Security Export Controls, please refer to the webpage for Security Export Control Policy, The Ministry of Economy, Trade and Industry:

<http://www.meti.go.jp/policy/anpo/englishpage.html>

#### ■ Guarantee

To save the environment, we do not issue warranty in printed format. Instead, all records of the warranty periods, delivery dates and the customer information are well kept in our system.

For more details, please refer to the sites below:

Hardware Warranty: [http://www.artray.us/download/artray\\_warranty.pdf](http://www.artray.us/download/artray_warranty.pdf)

## **2. Introduction**

ARTCAM-185IMX-HD3 is CMOS camera designed for industrial use.

Adopting HD-SDI, NTSC, etc. enable direct data transfer to monitor and TV.

## **3. Main Features**

- HD-SDI Output

ARTCAM-185IMX-HD3 adopts digital output terminal HD-SDI, so the image can be delivered to digital monitors directly.

- NTSC Output

ARTCAM-185IMX-HD3 adopts analog output terminal NTSC, so the image can be delivered to analog monitors directly.

- Remote Control

With remote control, it is able to change resolution, set cross line, etc.

## **4. The Product**

- 1) Camera
- 2) Digital Cable 2m
- 3) AC Adapter
- 4) Remote control

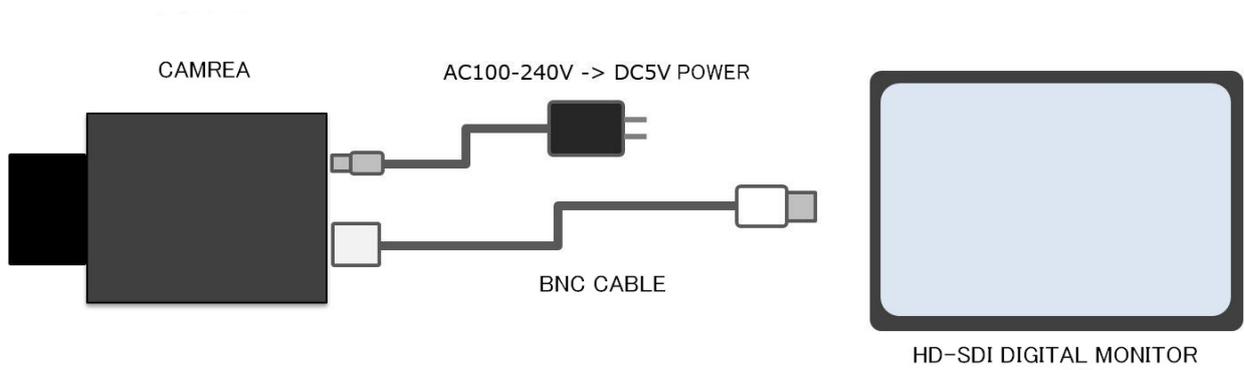
<Options>

- 1) C Mount Lens

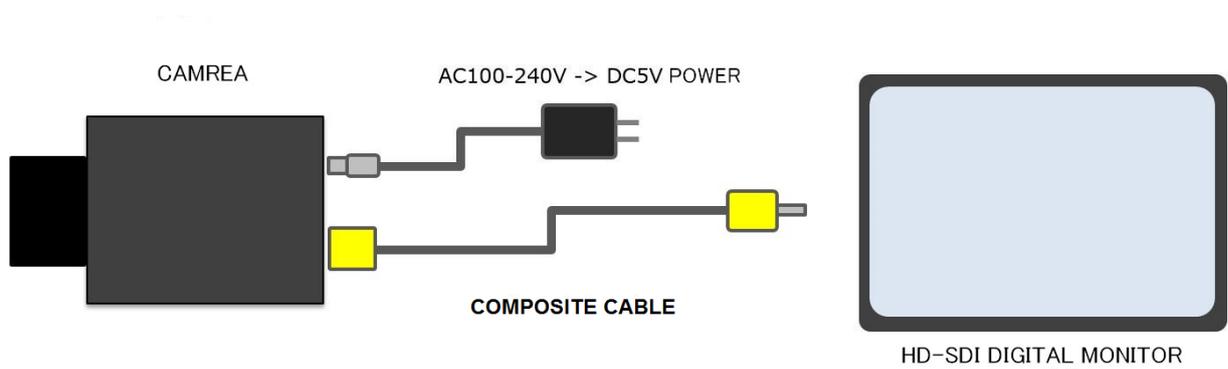
## 5. Connect the Monitors/TVs

### 5.1 How to Connect a Camera

- HD-SDI Output



- NTSC Output



## 6. Specifications

### 6.1 Sensor Specification

SENSOR MODEL	IMX185LQJ-C
SENSOR TYPE	CMOS Image Sensor
ACTIVE PIXELS	1945(H) x 1225(V)
ACTIVE IMAGE SIZE	7.29 (H) × 4.59 (V) mm 1/1.9 Inch
SCAN MODE	Progressive Scan
PIXEL SIZE	3.75(H)×3.75(V)μm
SHUTTER TYPE	Rolling Shutter
ARRAY	RGB Bayer Array
FRAMERATE	MAX: 60fps
SYNC SYSTEM	Internal Sync

### 6.2 Camera Specification

MODEL	ARTCAM-185IMX-HD3
LENS MOUNT	C-MOUNT
POWER SUPPLY	DC5V
POWER CONSUMPTION	Approx. 2W
AMBIENT CONDITIONS	Operating Temperature/Humidity : 0~35°C/10~80%(Non Condensing) Storage Temperature/Humidity : 0~60°C /10~95%(Non Condensing)
EXTERNAL DIMENSIONS	50.0(W) × 47.0(H) × 85.4(D) mm
WEIGHT	Approx. 180 g. ※Lens and tripod plate are not included.

## **6.3 Camera Function**

### **6.3.1 Exposure and Gain Control**

Manual / Auto (Exposure priority / FPS fixed)

### **6.3.2 White Balance**

Manual / Auto / One Push Auto

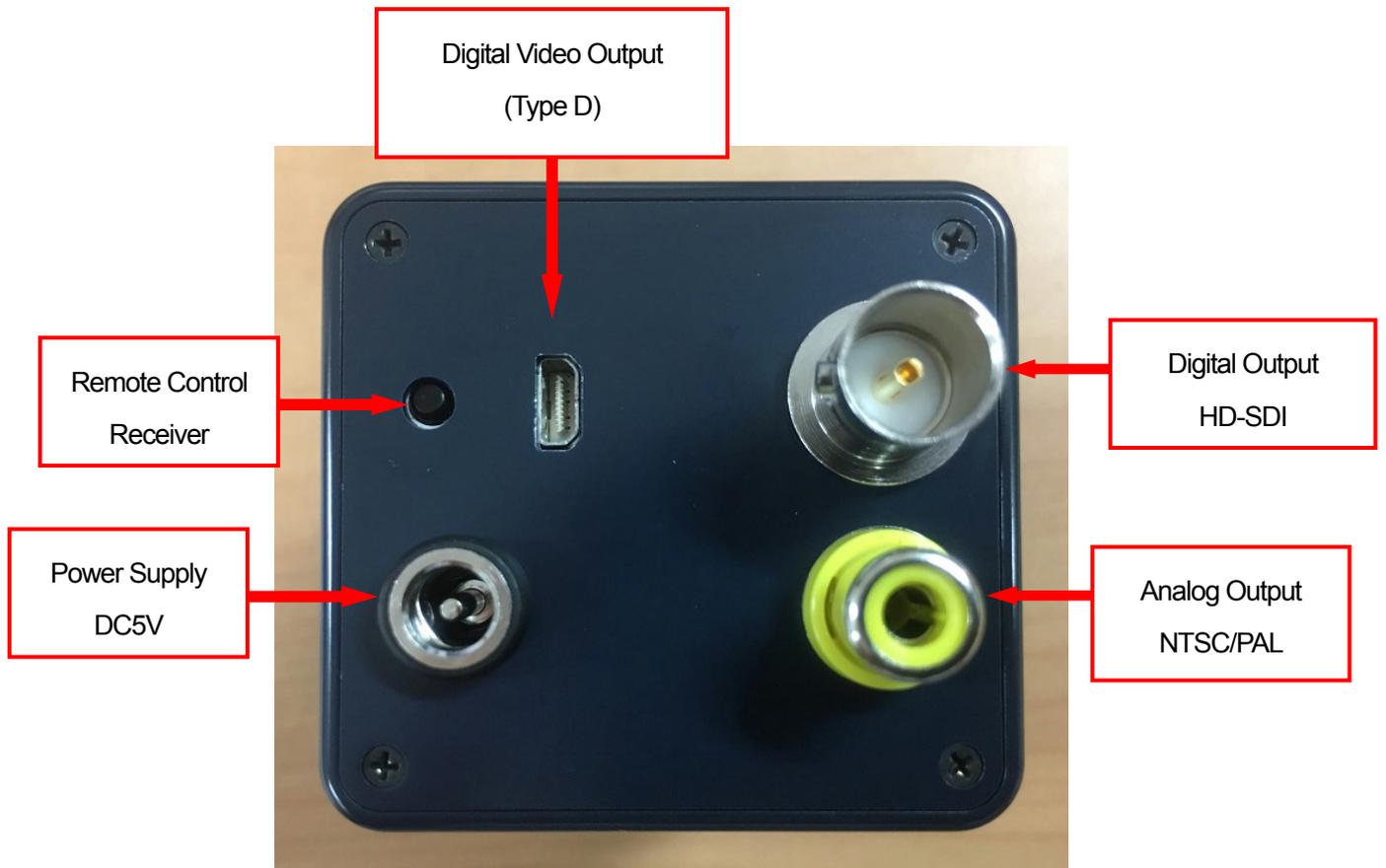
### **6.3.3 Image Quality Correction Function**

- Lens shading correction
- Gamma correction
- Contrast correction
- Brightness correction
- Saturation
- Hue
- Edge emphasis
- Noise removal

### **6.3.4 Special Functions**

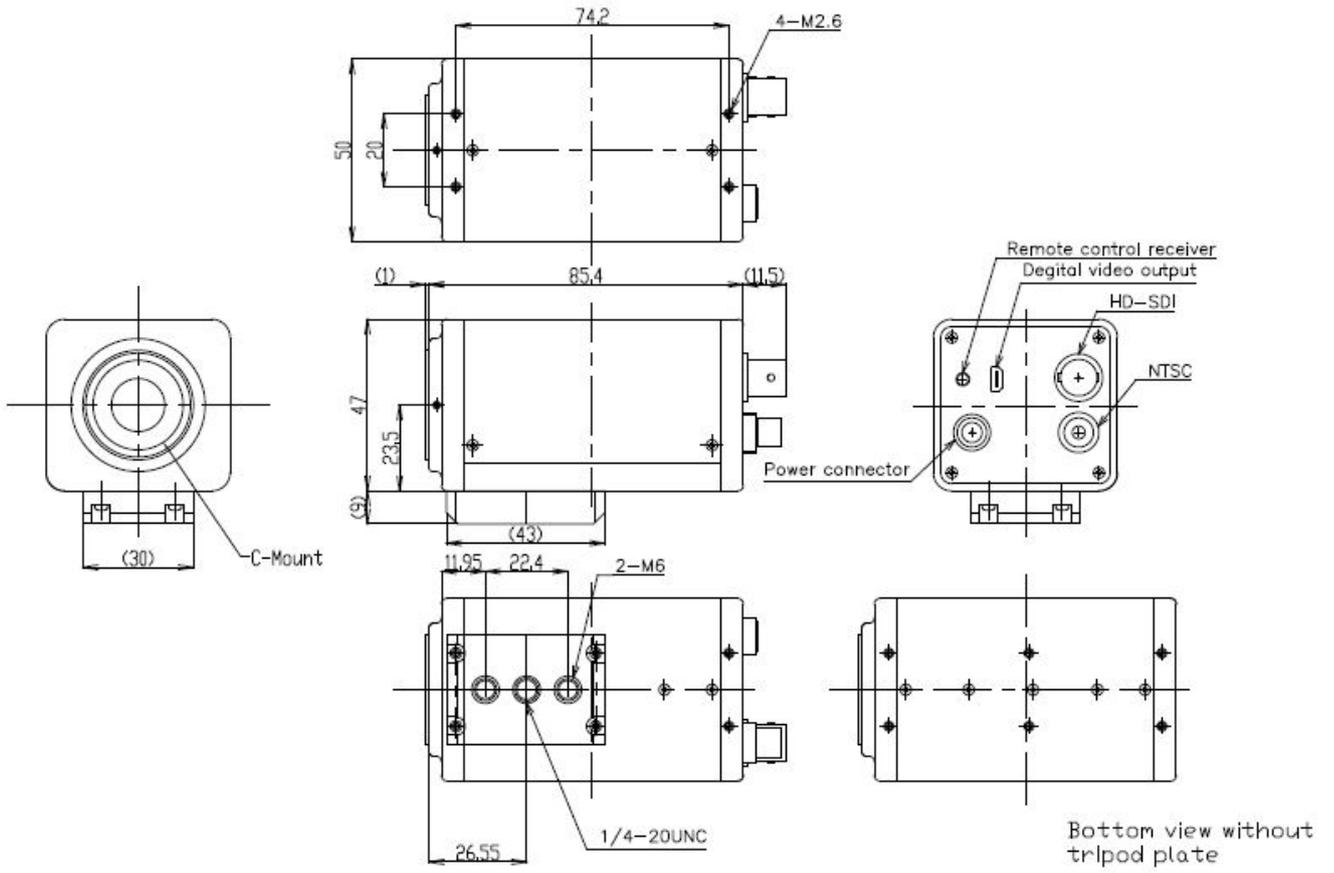
- Digital zoom
- Defog
- Wide dynamic range mode
- Motion detection
- Freeze (Still image mode)
- Cross line

### 6.3.5 Camera Rear Terminal Information



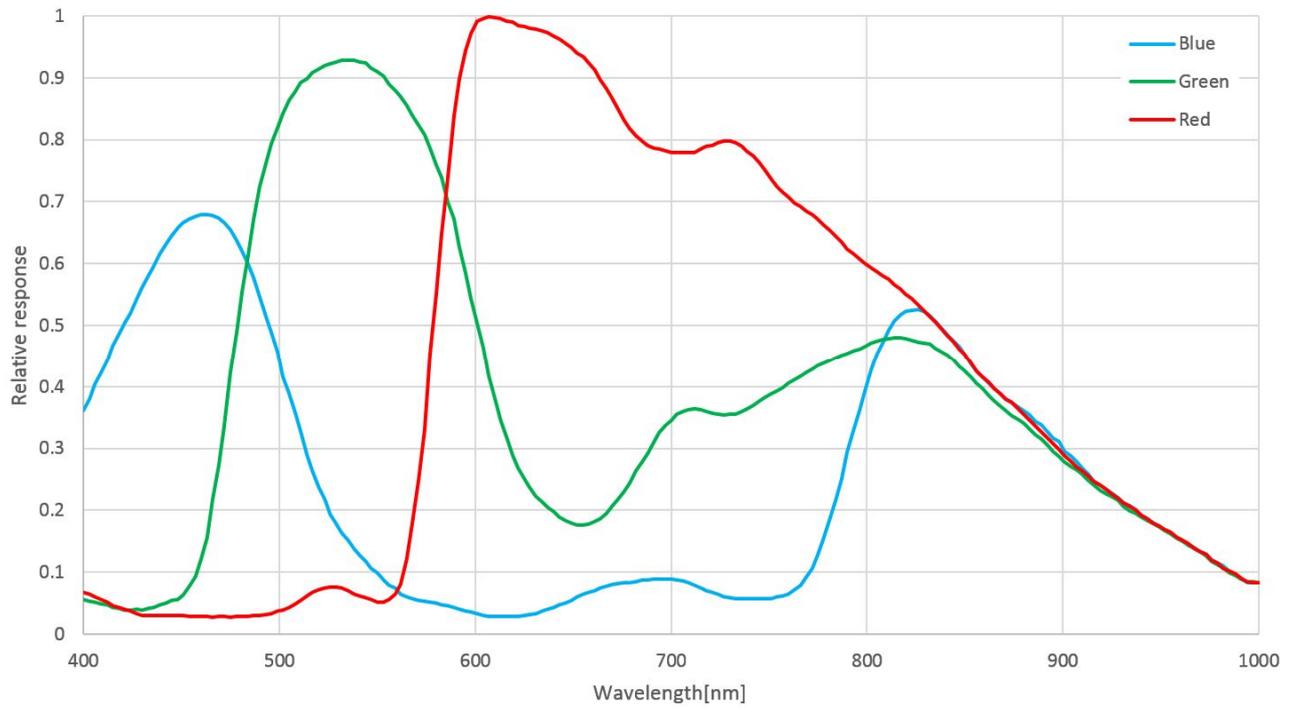
## 7. External Dimensions

### 7.1 ARTCAM-185IMX-HD3



## 8. Spectral Sensitivity Characteristics

### 8.1 ARTCAM-185IMX-HD3



## 9. Button Control Operation

Use remote control to use functions listed in “6.3 Camera Function”.

### 9.1 Function of Button

- ① Menu Button 

Show the menu screen.

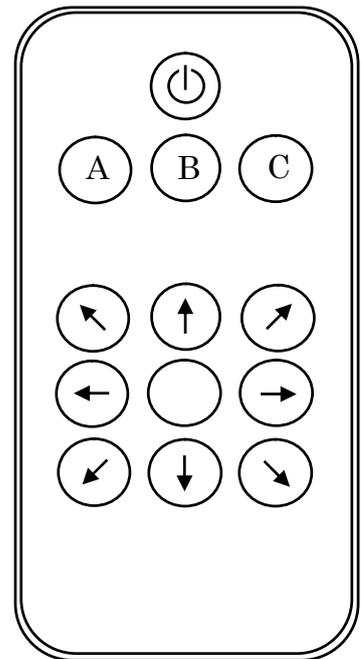
While in menu screen, press to return.

- ② Arrow Buttons    

Move upward/downward/leftward/rightward.

- ③ Select Button 

Press to select.



### 9.2 To restore default settings

Press menu button and the main menu will pop up.

Use arrow buttons to move the cursor to “SETUP” and then press select button.

Select “FACTORY RESET”.

Select “YES”.

After the sentence “Please Wait...” shows up on the screen, the screen will turn into black for an instant.

When image shows up again on the screen, the restoration of default settings is finished.

### 9.3 To set up cross line

Press menu button and the main menu will pop up.

Use arrow buttons to move the cursor to “LINE” and then press select button.

Select “MODE”.

Move cursor leftward or rightward to select “ON”, and then the cross line shows up.

Repeat the above process to turn off the cross line.

ARTRAY CO., LTD. Obtained ISO 9001: 2015 2018/9/17

1-17-5 Kouenjikita, Suginami-ku, Tokyo 166-0002 Japan

Tel : +81-3-3389-5488 Fax : +81-3-3389-5486

Email: [sales@artray.us](mailto:sales@artray.us) URL: [www.artray.us](http://www.artray.us)