

VGA NTSC Output Camera Module NCM03 BCW

NCM03-BCW is a CMOS camera module equipped with a signal processing LSI and a lens. It has vertical 648 pixels, horizontal 488 pixels via 1/3.7 inch sensor Signal output format NTSC



1. Features

1-1. Outline

- Waterproof IP67 compatible
- Wide angle plastic lens mounted
- Interlaced NTSC output
- Self-Starting start up(Built-in Flash ROM setting value retention)

1-2. Ratings

- Optical format 1/3.7 inch optical format
- Active pixels 672(H)x492(V)
- NTSC output 648(H)x488(V)
- features Auto exposure control, Auto white balance, Auto Gain Control
- Angle of view(TYP) Horizontal 137°±3% Vertical 111°±3%
- Optical Filter IRCF
- F number F2.2(typ)
- Imaging range 400mm~∞
- Power Consumption(TYP) 47mA(Vin=7.6V)
- Waterproof ·Dustproof Waterproof IP67

1-3. Recommended operating conditions

No	Project.	MIN	TYP	MAX	Unit	Remarks
1	Power supply voltage	6.0	8.0	12.0	V	-
2	Operating temperature	-30	-	+80	°C	-
3	Storage temperature	-40	-	+85	°C	-
4	Humidity	-	-	85	%RH	-
5	Static electricity	-8	-	+8	kV	-
6	Vibration	-	-	2.5G 30Hz	-	-

1-4. Maximum ratings

No	Project.	MIN	MAX	Unit	Remarks
1	Power supply voltage	-	+12	V	-

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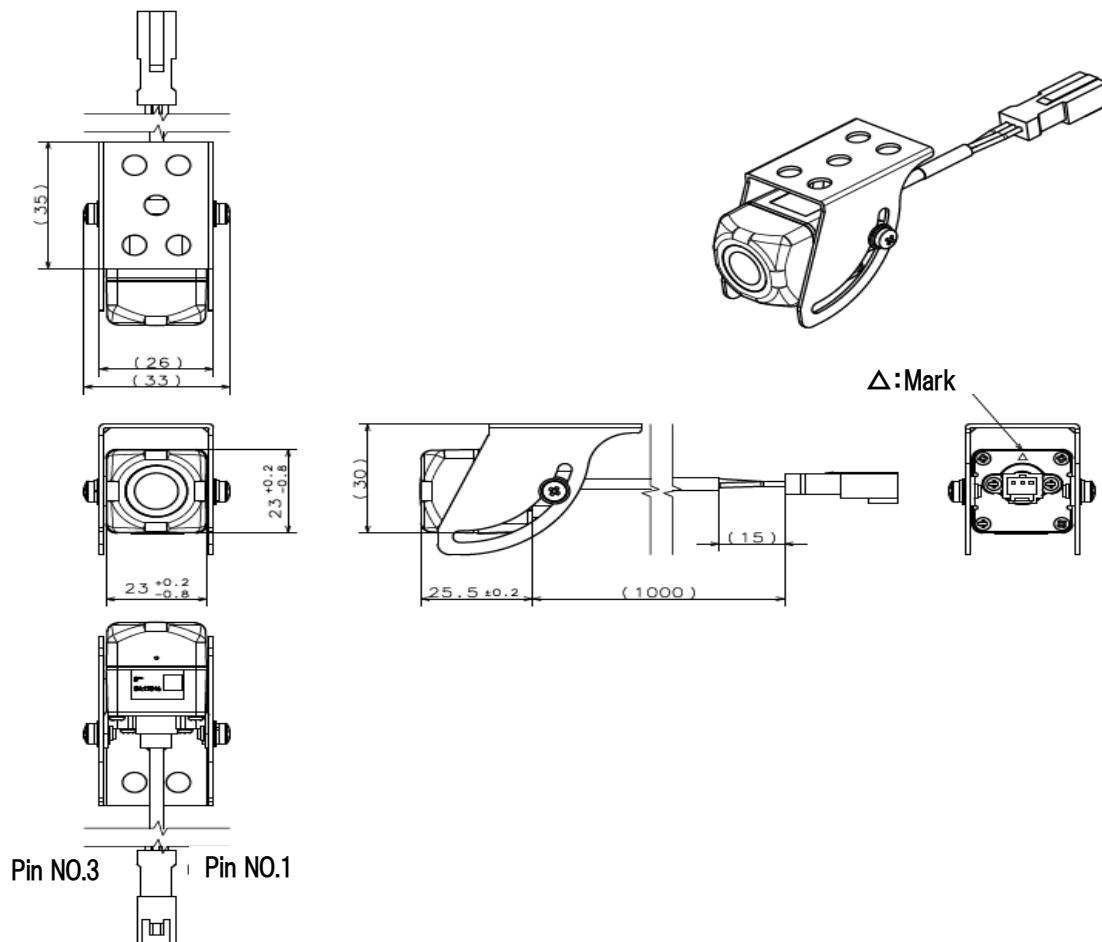
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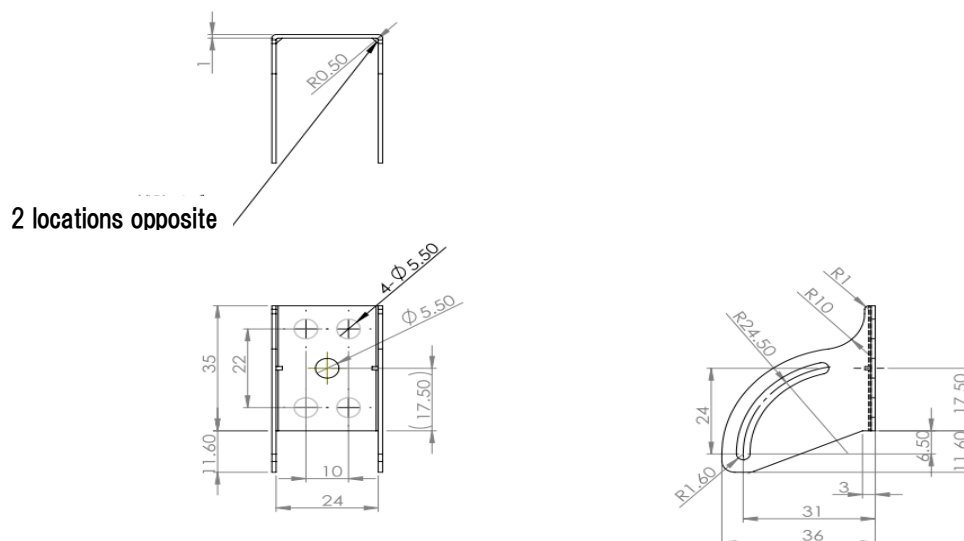
1/3.7-inch VGA NTSC Output CMOS Camera Module (NCM03-BCW)

2. Dimensions (Tentative)

2-1 Camera module body



2-2. BRKT

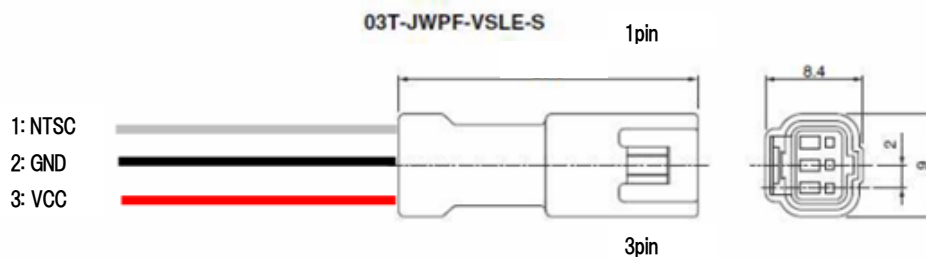


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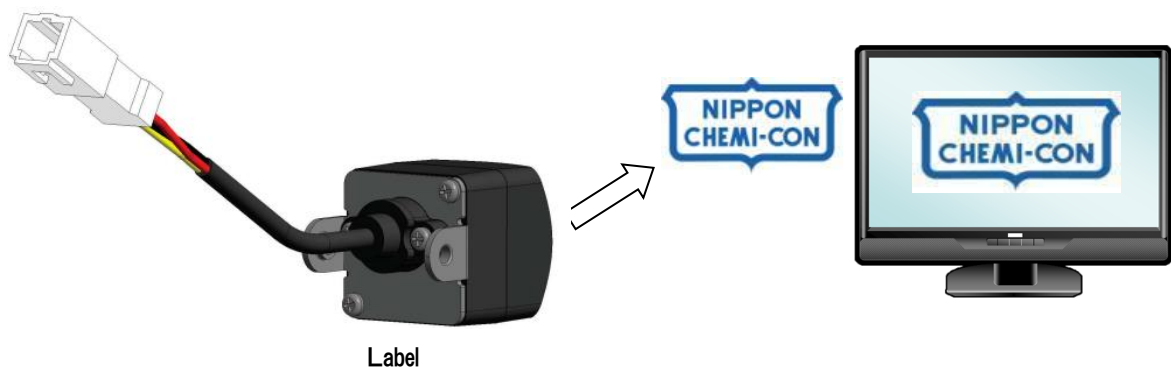
3. Output terminal



Connector: 03T-JWPF-VSLE-S (JST)

Terminal#	Symbol	I/O	Description	Cable Color
1	NTSC	O	NTSC	Yellow
2	GND	-	GND	Black
3	VCC	-	POWER	Red

4. Imaging direction



※ This product is a genuine image product.

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5. Handling precautions

This camera module is designed to be incorporated into electronic equipment. Please note the following precautions to ensure safety design.

1) Operating temperature

Please make sure that the inside temperature of the equipment does not exceed the operating temperature.

2) Durability of CMOS imaging device against sunlight

If the device will be used under sunlight for long duration, the optical performance may be affected by deterioration of lens and sensor.
Please confirm the application environment in advance.

3) Installation method

This camera module is not a dust or drip-proof. Please prevent water/dust to come inside when installing on equipment.

4) Electrostatic countermeasure

Please handle this camera module in the same way as semiconductor devices, avoiding electrostatic.

Recommended environment

- ① Use an electrically conductive mat on the workbench and the floor in the work area to remove static electricity.
- ② Workers should use antistatic clothing, wrist strap, etc.
- ③ Use electrostatically discharged jigs, boxes, bags, etc..
- ④ When handling, remove static electricity with an ionizer or the like.

5) Mechanical strength

This camera module is a precision optical component. Please handle with care so as not to give excessive mechanical shock.

Especially stress on the FPC crimping part should not be applied during and/or after the installation.

Please prevent dust and dirt from adhering to the surface of the lens, and be careful not to scratch the lens while handling or when removing foreign matter on the lens surface.

6) Disassembly/Modification

Please do not disassemble or modify this module. The warranty does not cover the product if it is disassembled or modified.

7) Safety standard

This camera module is a semi-finished product (module part), and we do not guarantee compliance to any safety standards by itself.

Please obtain the safety standard with your finished product.

8) Safety design

Although we strive to improve the quality and reliability, there is always a risk of malfunctioning generally with semiconductor products. Please design the safety function in your equipment to prevent a harm to human life/health or property in case of potential malfunction of this camera module.

9) Storage

This camera module is a precision optical component. Avoid storing in high temperature/humidity/dust/environment and/or direct sunlight.

10) Use for specific applications

This camera module is intended to be used for commonly used electronic equipment (such as computer, office equipment, measuring equipment, industrial robot, home appliances, etc.). It is not intended to be used for equipment which requires extremely high quality and reliability, where its malfunction may directly affect human life or health, including but not limited to, nuclear power control equipment, aerospace equipment, transportation equipment, traffic signal equipment, combustion control, medical equipment, life support system, various safety devices, etc. (hereinafter referred to as specific applications).

If you are planning to use this module for applications other than those for general, commonly used electronic equipment, please contact us in advance.

We will not be responsible for any damage caused by this camera module if it is used for those specific applications without prior consultation.

11) Radiation resistance design

This product is not designed to withstand radiation.

12) Handling of export restricted cargo

Please follow the local laws/regulations of your country/region for exporting technical information of this product or the product itself.

13) Laws and Regulations

You cannot use this camera module for the products that are prohibited to manufacture or sell according to applicable laws and regulations.

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