on a table: TV Conference Camera

under a ceiling: Surveillance Camera

**USB** connection: WEB Camera

**Omnidirectional** Camera NM33D-F

has no blingso

Built-in high-speed DSP enables to output developed flat/enhanced/panning images.



180 degrees Panoramic view

# **Features**

- 180° + 360° ultra wide Viewing Angle 3 Mega Pixel color CMOS Sensor
- JPEG compressed digital images via USB port provide high-definition image to PCs and VCR
- NTSC/PAL composite output
- max 15 frames per second
- Digital Pan/Tilt/Zoom with no moving parts
- 5 inch diameter DOME configuration

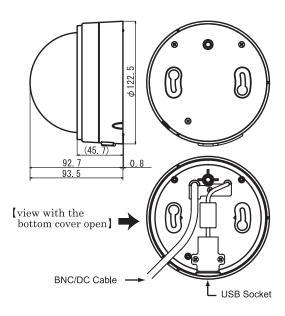


Partial Zoom

Digital output keeps high-resolution image.

Image flip function enlarges the utility.

## Dimensions (mm)



## View Angle



## Specification

#### **CAMERA**

Model NM33D-F

Image Signal Output NTSC/PAL composite (pre-setting at ex-factory)

Image Sensor 3 Mega Pixel Color CMOS sensor

Effective Pixels (h x v) 2048 X 1536, approx. 3.15 Mega pixels

Usable Pixels approx. 1.70 Mega pixels

Viewing Angle 180°, 360°

Object Distance 10 mm ~ infinity (from the lens surface)

Minimum Light Required 5 lux
white Balance automatic
Exposure automatic
Frame Rate 15 fps max.
Image Development 15 patterns

#### **INTERFACE**

Image Output BNC female, 1 Vp-p, 750  $\Omega$ 

Control Signal Input 6 pin, mini DIN

Power Input DC jack (AC Adapter)

A type

## USB POWER

Input Voltage DC  $5.0 \text{ V} \pm 5 \text{ \%}$ Current Consumption 500 mA max.

AC Adapter DC 5 V, 2 A (recommended)

0°C~ 40°C

### **OTHERS**

Operation Temperature

Dimension D122.5 X 93.7 mm Weight approx. 400 grams

## **Product Features**

- Equipped with a newly developed small-sized fisheye lens  $(\phi 20 mm)$ , taking pictures in hemispheric field of vision can reduce the number of cameras to use.
- Image flip function enables to place the camera either on a table or under a ceiling.
- Thanks to the built-in, newly developed, high-speed processor, you can
  convert a hemispherical image to a flat image and can zoom or scroll any
  portion of the images.
- JPEG compressed digital image output via USB port keeps high-resolution images to PC. Beside its very large data, 15 fps frame rate provides smooth video image.
- Thanks to the auto-panning function, you can enjoy auto-panning at your ease without turning your camera or extra image processing. The elimination of the swinging mechanism has reduced its cost and risk of malfunction.

## **Application**

Store monitoring system
Factory monitoring system
TV Conference
Entrance monitoring system
Surveillance camera

#### Accessories

AC Adapter

CD (application soft, user manual) USB extention cable (3 m)

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