

# OPTIVISTA™ EPK-i7010

## Product Specifications

**PENTAX**  
MEDICAL



### Power Supply

Voltage	120V AC (NTSC) / 230 V AC (PAL); within $\pm 10\%$
Frequency	50-60 Hz

### Size and Weight

Dimensions (W x H x D)	400 x 205 x 520 mm
Weight	21.5 kg

### Classification (Medical Electrical Equipment)

Type of protection against electric shock	Class I equipment, 3 prong plug
Degree of protection against electric shock	Type BF (Body Floating), using insulated endoscope. Use on a heart is prohibited.
Degree of explosion proofing	Do not use in potentially flammable surroundings.

### Illumination

Lamp	300W Xenon (Life: 500hrs, depending on usage)
Brightness	Brightness adjustment is possible in $\pm 11$ steps using the button on the touchscreen.
Light exposure control	<p>The auto light exposure control can be selected using EXPOSURE CONTROL and MODE on the touch screen.</p> <ul style="list-style-type: none"> <li>- EXPOSURE CONTROL           <ul style="list-style-type: none"> <li>AUTO: The light exposure is automatically adjusted.</li> <li>MANUAL: The light exposure is fixed in the certain level which is set on the brightness.</li> </ul> </li> <li>- MODE (in AUTO mode)           <ul style="list-style-type: none"> <li>AVE: The light exposure is controlled based on the average level of brightness in the endoscopic image.</li> <li>PEAK: The light exposure is controlled to reduce halation area in the endoscopic image.</li> </ul> </li> </ul>

### Air flow function

Pump	Diaphragm type pump / Air flow can be selected from 5 different levels.
Air pressure	45-70 kPa (6.5-10.2 PSI)

### Observation

HD signal output	Digital: 1080i (1920 x 1080) thru DVI and HD-SDI / Analog: SXGA (1280 x 1024) thru DVI
Analog SD signal output	RGB, S-Video, Composite Video
White balance adjustment	White balance adjustment is possible using the white balance button on the touchscreen.
Color balance adjustment	The following color balance adjustments are possible using the touch screen interface: Red adjustment: $\pm 11$ steps, Blue adjustment: $\pm 11$ steps.
Contrast	Image contrast can be adjusted in 3 settings (illumination, Mode 1 and Mode 2).

## Observation

D-Range Expansion	D-Range Expansion can improve far field illumination.
Image enhancement setting	Post-processing image enhancement / i-SCAN (Mode 1, Mode 2, and Mode 3) OE Optical image Enhancement (Mode 1, Mode 2)
TwinMode	TwinMode shows white light image and images with image enhancement side by side on the monitor.
Digital zoom	Digital zoom is available. Magnification ratio: OFF, 1.2, 1.5, 2.0.
Image size selection	The size of the endoscopic image can be changed in 2 modes (Full, Med).
Freeze	The still image can be shown when activating Freeze mode.
Freeze Scan	Freeze Scan is a software function that selects the sharpest image from a series of images temporarily stored in the video processor.

## System settings

Customizable buttons	There are 4 customizable buttons in the touchscreen and functions on the video processor can be assigned to these buttons.
PinP	External composite video signal can be the input into the video processor and shown on the monitor.
Endoscope's remote button function	The video processor's functions can be set on the remote buttons of the endoscope by using the touchscreen.
Remote control	The following peripheral devices can be controlled by the remote control. (LAN, RS-232C, USB, Remote terminal) / Video Printer, Video recorder, Filing system.

## Documentation

Patient data	The following data can be displayed on the monitor: Patient ID, Patient name, Sex, Age, Facility, Comments.
Displaying the recorded state	The recording state of the following peripheral devices can be displayed on the monitor. External storage media, Filing system, Video printer.
Displaying the image information	The following data is displayed on the monitor. Enhancement level, image enhancement (i-SCAN modes and OE modes), Zoom Level, Color balance, Brightness.
Advance registration of patient data	Up to 50 patients' data can be registered.
HD video recording	Integrated HD video recorder (20 mins with high quality to 40 mins with standard quality) the video file is stored into the external storage media.

## External storage

Media	USB port is equipped on the front panel and the rear panel. USB memory stick, USB HDD drive.
Recording format	Still image: JPEG, BMP / Video: TS format.

## Memory Backup

User settings	Up to 20 user settings can be registered.
Memorization of selected settings	Following settings can be individually set for users: <ul style="list-style-type: none"><li>- SE, CE</li><li>- Enhancement</li><li>- Ave / Peak</li><li>- Noise reduction</li><li>- Sub screen position</li><li>- Manual brightness level</li><li>- Auto brightness level</li></ul>
Lithium battery	Lithium battery is equipped in the processor for a real time clock.

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