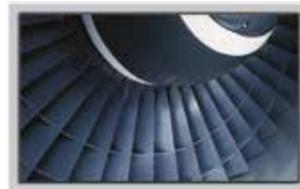




IT COULDN'T BE SMALLER

Panasonic has met the demands of countless users with 1080p - genuine 16:9 high definition for micro cameras. For outstanding sharpness, impressively true colours and flicker-free images.



1MOS FULL HD COMPLETE MICRO CAMERA SOLUTION



HIGH RESOLUTION AND HIGHER SENSITIVITY

You simply see more with HD technology. An extraordinary resolution of 900TV lines, a very good sensitivity and a high speed electronic light control provides clearer images in all sorts of possible ambient light conditions. Especially endoscopic, microscopical and point-of-view applications can benefit from these features.

DIGITAL VIDEO INTERFACES

In order to forward the high-resolution images without data loss to subsequent monitor and recorder device, the camera is equipped with a HDMI interface. To support also long distance video transmission, another control unit provides also a digital HD-SDI interface. To be also compatible with the still commonly used analogue component standard, the camera also includes a RGB/YPbPr terminal. And of course all outputs are working simultaneously.

MULTI VIDEO FORMATS

Beside the 1080p FULL HD mode for HDMI, the remote head camera also supports the HD formats 1080i and 720p as well as the SD formats 576p and 576i. Even the video frequency itself can be changed between 50Hz and 59.96Hz. To be backward compatible, GP-KH232CUE includes an S-Video output to support Standard Definition.

1MOS FULL HD OEM MICRO CAMERA SOLUTION



EASE AND FLEXIBILITY OF THE MICRO CAMERAS OPERATIONS

By utilizing the user-friendly OSD on-screen menu micro cameras can be controlled efficiently and easily. This means parameters can be changed quickly during operation. In addition to that, own settings can be saved easily as well. The same control is also possible remotely via RS232 and a GUI software. The OSD control of OEM components can also be adapted to customer specific needs.

RECORDING

The Panasonic OEM micro camera recording solution GP-RC100 is an option unit for the Panasonic OEM micro camera GP-KH232, which enables recording and digital video streaming to H.264 or still picture in JPEG. The GP-RC100 provides the opportunity to record the live picture (mp4) to an USB device or access it from PC via IP network. Additionally, Full HD signals can be encoded and recorded in more than 24 Mbps to USB device or via network.

PICTURE MANIPULATION FUNCTIONS

The Panasonic 1MOS OEM camera system features electronic shutter, gain control, scene file, white balance, electronic zoom, image freezing, flip & mirror and dynamic range expansion, which can be activated to enhance the simultaneous display of light and dark objects.

COLOURS ON DEMAND

Panasonic 1MOS Full HD features an individual colour range adjustment using a 16-axis colour matrix. This unique single colour enhancement provides particularly brilliant colour reproduction in scientific or industrial solutions.



Original picture

Colour adaptation with 16-axis colour matrix

DIGITAL ZOOM

Get closer with the 2.5x continuous electronic zoom to see more details of a dedicated area of the object in front of your camera solution.



MOS-TECHNOLOGY

Quality starts with a high sensitivity head

Thanks to MOS Technology the video signal chain inside the Panasonic HD micro cameras becomes fully digitized. The digital Full HD progressive scan signal, generated in the head and loss free transmitted via the camera cable, is processed with high bandwidths at the control unit.



FULL HD 1080p

FEATURES

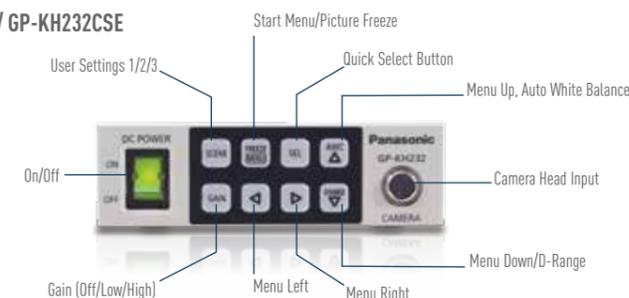
- » 1/3" MOS head with 1920 x 1080 Pixel, - 900 TV lines resolution and - Ultra compact size
- » Multi video format camera (50Hz and 59.96Hz) - HD: 1080p (HDMI only), 1080i and 720p - SD: 576(480)p and 576(480)i
- » Remote head cable with loss-free digital signal transmission up to 15m
- » Picture enhancement functions - Frequency selectable detail enhancement - Dynamic range enhancement
- » Picture manipulation functions - Image mirror, flip and rotate - Electronic zoom (max 2.5) - Still picture
- » Natural colour settings (16-axis colour matrix)

OVERVIEW OF CONTROLS AND CONNECTIONS

1MOS Full HD Complete Micro Camera System GP-KH232E

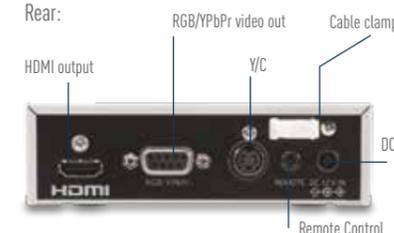
GP-KH232CUE/ GP-KH232CSE

Front:



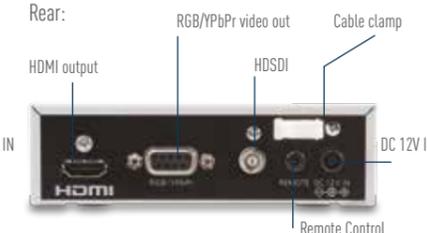
GP-KH232CUE

Rear:



GP-KH232CSE

Rear:



SYSTEM COMPONENTS

COMPLETE 1MOS PRODUCT SOLUTIONS



- GP-KH232HA Remote Camera Head**
- 1/3" type MOS with Full-HD Pixel
 - C-Mount+Dimension app. 28 x 27 x 39 mm
 - Sensitivity: 2000lx at F8



- GP-KH232CUE CCU Control Unit**
- Supports GP-KH232HM/HU head
 - Output: HDMI(1080p) and RGB/YPbPr, Y/C
 - Dimension: app. 120 x 36 x 157 mm
 - RS232 Control I/F



- GP-KH232CSE CCU Control Unit**
- Supports GP-KH232HM/HU head
 - Output: HDMI, HDSI and RGB/YPbPr
 - Dimension: app. 120 x 36 x 157 mm
 - RS232 Control I/F (available from Oct. 2012)



- GP-KC232 Signal Cable**
- Industrial Grade with 20 Pin Hirose
 - GP-KC232G02 : 2m - GP-KC232G04 : 4m length
 - GP-KC232G06 : 6m - GP-KC232G15 : 15m length



- GP-NT15 Power Supply**
- 90..240V AC(50/60Hz) and 12V DC
 - with EIAJ RC-5320A plug
 - Medical IEC60601-1 approval

OEM 1MOS PRODUCT SOLUTION



- GP-KH232HUA Remote Head Module**
- 1/3" type MOS with Full-HD Pixel
 - Flex cable connector
 - Dimension: 25 x 23 x 19 mm



- GP-KH232CB Control Board**
- Supports GP-KH232HA/HU/HUA
 - Output: YUV, HDMI, YPbPr, Y/C, Video
 - RS232C (3.3V) remote control
 - Dimension: app. 104 x 139 x 10 mm



- GP-RC100CB Recording Option**
- Supports GP-KH232CB & GP-US932CBSX
 - Trigger input and footswitch connector
 - USB PIN connector
 - RJ45 (streaming & web access)



- GP-KC232/100-58 Cable Components**
- Non-assembled raw cable in black
 - 100 m with 5.8 mm diameter
 - Suitable for medical use