

What was once...

IMPOSSIBLE
...IS
NOW **REALITY**



360° Network Camera Features Multiview Options

Developed specifically for the education market

Manufactured by Panasonic in partnership with Audio Enhancement, the pioneers of classroom audio, the EduCam360™ allows educators, administrators and security personnel to see the entire classroom—all at once!

Choose one or all angles

View multiple, simultaneous angles of the classroom in high definition quality with the EduCam360. Choose full circle 360° panoramic, two 180° double panoramas, four quarter 90° or a simple single stream view.

You've never seen quality like this before

Super Dynamic SmartHD provides clarity like never before with the EduCam360. The sharp 1080p image even provides a clear image of the whiteboard.

Bring the EduCam360 to your school

Teachers, administrators and school resource officers will appreciate the most advanced, multiple-view educational camera available today.

Features include:

- 360° monitoring with a wide variety of transmission modes: Wall Panorama, Double Panorama, Quad PTZ, Single PTZ, and Quad streams (H.264/VGA)
- Rolling mechanism conceals lens for Privacy Mode, blocking all recording functionality.
- 1080p Full HD images up to 30 fps.
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by enhanced "UniPhier®".
- Smooth PTZ operation without mechanical action.
- Built-in distortion correction function.
- Fish-eye lens control function realizes intelligible screen operation intuitively.
- VMD (Video Motion Detector) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size.
- Alarm sources including 3 terminal input, VMD can trigger actions such as FTP image transfer, Email notification, Indication on browser, Alarm terminal output, and Panasonic protocol output.
- Full duplex bi-directional audio allows interactive communication between camera site and monitoring site.
- Supports SSL, DDNS (viewnetcam, RFC2136)

Compatible with the

SAFE SYSTEM™
Security Alert For Education
by AUDIO ENHANCEMENT®



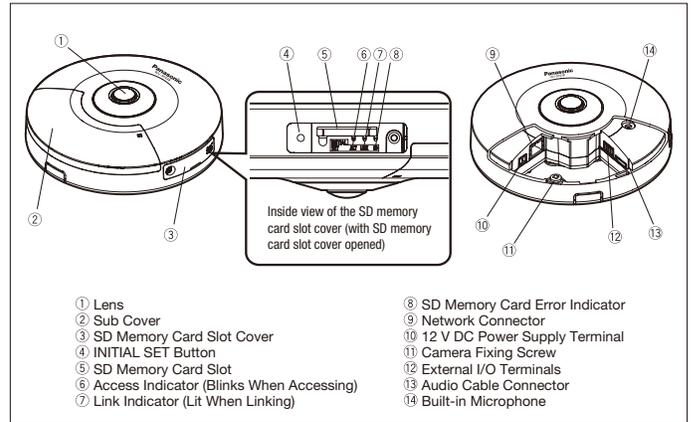
EduCam360™ Specifications

TV System	NTSC	PAL
Camera	Image Sensor: 1/3 type MOS Sensor Effective Pixels: Approx. 3.1 megapixels Scanning Mode: Progressive Scanning Area: 4.51 mm (H) x 3.38 mm (V) {3/16 inches (H) x 1/8 inches (V)} Minimum Illumination: Color: 1.5 lx (F2.4, Auto slow shutter: Off (1/30s), Gain: On(High)) Color: 0.1 lx (F2.4, Auto slow shutter: Max. 16/30s, Gain: On(High)) *1 BW: 1.2 lx (F2.4, Auto slow shutter: Off (1/30s), Gain: On(High)) BW: 0.08 lx (F2.4, Auto slow shutter: Off (16/30s), Gain: On(High)) *1 White Balance: AWC (2,000 - 10,000 K), ATW1 (2,700 - 6,000 K), ATW2 (2,000 - 6,000 K) Light Control Mode: Indoor scene (50 Hz / 60 Hz) / ELC Shutter Speed: With Super Dynamic On ELC (1/30 s) With Super Dynamic Off ELC (1/30 s), ELC (3/100 s), ELC (3/120 s), ELC (2/100 s), ELC (2/120 s), ELC (1/100 s), ELC (1/120 s), ELC (1/250 s), ELC (1/500 s), ELC (1/1,000 s), ELC (1/2,000 s), ELC (1/4,000 s), ELC (1/10,000 s) Super-Dynamic: ON / OFF Dynamic Range: 52 dB typ. (only at Super-Dynamic On) Adaptive Black Stretch: On/Off (only at Super-Dynamic Off) AGC: ON (HIGH) / ON (MID) / ON (LOW) / OFF Electronic Sensitivity UP Day & Night(electrical): OFF (1/30 s), Max. 2/30 s, Max. 4/30 s, Max. 6/30 s, Max. 10/30 s, Max. 16/30 s OFF / AUTO Digital Noise Reduction: HIGH / LOW Video Motion Detection: ON / OFF, 4 areas available Video analytics Face Detection: Off/On/On with face frame display However, face detection is not supported when "Fisheye" or "Quad streams" is selected for the image type. Auto mode: Auto pan/ Preset sequence Auto mode can only be used when the image type is Quad PTZ or Single PTZ. Self return: 10 s/ 20 s/ 30 s/ 1 min/ 2 min/ 3 min/ 5 min/ 10 min/ 20 min/ 30 min/ 60 min Self return can only be used when the image type is Quad PTZ or Single PTZ. Privacy Zone: ON / OFF (up to 4 zones available) VIQS: On/Off (up to 2 areas available) However, the VIQS function is not supported when "Quad PTZ", "Single PTZ" or "Quad streams" are selected. Camera Title (OSD): Up to 20 characters (alphanumeric characters, marks), On/Off However, you can specify characters to be displayed on each of the four screens when "Quad streams" is selected.	
Lens	Focal Length: 0.837 mm Angular Field of View: Horizontal: 182°, Vertical: 176° Maximum Aperture Ratio: 1:2.4 (Fixed) Focusing Range: 0.3 m - ∞ Camera Control: Pan/Tilt/Digital Zoom, Preset, Auto Mode, Self Return, Fisheye Control, Brightness, AUX ON / OFF Display Mode: Spot, Quad: Image from 16 cameras can be displayed in 4 different Quad screens or 16 split screen (JPEG only). 20 characters camera title available. Digital Zoom: 1x, 2x, 4x controlled by browser GUI (Quad PTZ or Single PTZ mode) 1x -4x (Panorama, Double Panorama, 3M Fisheye mode) Camera Title: Up to 20 alphanumeric characters Clock Display: Time: 12H/24H, Date: 5 formats on the browser, Summer time (Manual) Alarm Control: Reset One Shot Capture: A still picture will be displayed on a newly opened window. Audio: Mic (Line) Input: ON / OFF Volume adjustment: Low / Middle / High, Audio Output: ON / OFF Volume adjustment: Low / Middle / High SD Memory Data Download: Still or motion Images recorded in the SDXC/SDHC/SD memory card can be downloaded. GUI/Setup Menu Language: English, Italian, French, German, Spanish, Russian, Chinese, Japanese System Log: Up to 100 (Internal), up to 4,000 (SDXC/SDHC/SD memory when the recording format is set to JPEG.) error logs Supported OS *2 *3: Microsoft® Windows® 7, Microsoft® Windows Vista®, Microsoft® Windows® XP SP3 Supported Browser: Windows® Internet Explorer® 9.0 (32 bit), Windows® Internet Explorer® 8.0(32 bit), Windows® Internet Explorer® 7.0 (32 bit), Microsoft® Internet Explorer® 6.0 SP3 10Base-T / 100Base-TX, RJ-45 connector (female)	
Browser GUI		
Network	Network IF: 10Base-T / 100Base-TX, RJ-45 connector (female) Image Resolution *4: 2M Panorama [16:9]: H.264(1): 1920x1080 / 640x360 / 320x180, up to 30 fps 2M Double Panorama [16:9]: H.264(2): 640x360 / 320x180, up to 30 fps 1.3M Panorama [16:9]: JPEG: 1920x1080 / 640x360 / 320x180, up to 30 fps 1.3M Double Panorama [16:9]: H.264(1): 1280x720 / 640x360 / 320x180, up to 30 fps 1.3M Double Panorama [16:9]: H.264(2): 640x360 / 320x180, up to 30 fps Panorama + Quad PTZ: • When using distribution of "Wall Panorama" or "Double panorama" H.264(1): 1920x1080 / 640x360 / 320x180, up to 15 fps Panorama + Single PTZ: JPEG: 1920x1080 / 640x360 / 320x180, up to 15 fps + Quad PTZ: • When using distribution of "Quad PTZ" or "Single PTZ" H.264(2): 1280x960 / 640x480 / 320x240, up to 15 fps + Double Panorama: JPEG: 1280x960 / 640x480 / 320x240, up to 15 fps + Single PTZ: H.264(1): 1280x960, up to 15 fps VGA Quad streams: Ch1-Ch4 640x480 max.30 fps * Only for H.264 images. * There are specification limitations such as the SD memory card function being unavailable. 3M Fisheye [4:3]: H.264(1): 1280x960, up to 15 fps H.264: H.264(2): 2048x1536, up to 15 fps Transmission Mode: Constant bitrate / Best effort Frame Rate: 1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps Bit Rate/Client: 64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 8,192 / 10,240 / 12,288 / 14,336 kbps Image Quality: LOW / NORMAL / FINE Refresh Interval: 1 fps - 30 fps Transmission Type: UNICAST / MULTICAST JPEG: Image Quality: 10 steps Refresh Interval: 0.1 fps - 30 fps Transmission Type: PULL / PUSH Audio Compression: G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps Audio Mode: OFF / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex) Authentication for Audio: Level 1 only / Level 2 higher / All users Total Bit Rate: 64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 8,192 kbps / Unlimited Supported Protocol: IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP FTP Client: Alarm image transmission, FTP periodic transmission (When the FTP transmission is failed, backup on an optional SD memory card is available.) No. of Simultaneous Users: Up to 14 users (Depends on network conditions)	

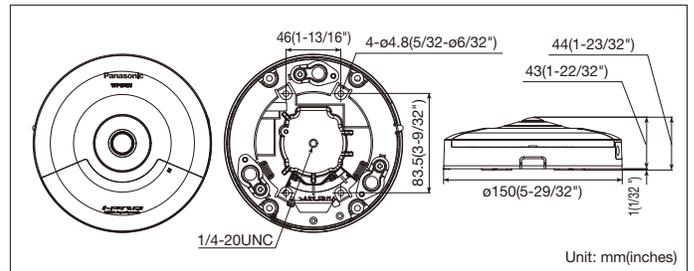
TV System	NTSC	PAL
Network	Face Detection: ON / OFF (with XML notification) **3M Fisheye [4:3], *1-3M Fisheye [4:3], and "VGA Quad streams" modes cannot use the Face Detection function. Cellular Phone Compatibility: JPEG image, AUX control (by access level) Mobile Terminal Compatibility: iPad, iPhone, iPod touch (iOS 4.2.1 or later) Android™ mobile terminals	
Alarm	Alarm Source: VMD, Command alarm Alarm Actions: SDXC/SDHC/SD memory recording, E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output Alarm Log: With SDXC/SDHC/SD memory card: 5,000 logs, without SDXC/SDHC/SD memory card: 1,000 logs Schedule: VMD	
Input/ Output	Microphone/Line Input: Internal microphone, ø3.5 mm monaural mini jack, Input impedance: Approx. 2 kΩ For microphone input: Applicable microphone: Plug-in power type, Supply voltage: 2.5 V ±0.5 V For line input: Input level: Approx. -10 dBV Audio Output: ø3.5 mm stereo mini jack (monaural output), Output impedance: Approx. 600 Ω, Line level External I/O Terminals: ALARM IN 1, ALARM IN 2/ ALARM OUT, ALARM IN 3/ AUX OUT (x1 for each)	
General	Mounting method: Ceiling/ Wall/ Desktop/ Tripod Safety/EMC Standard: UL (UL60950-1), FCC (Part15 ClassA), CE, IEC60950-1 (EN55022 ClassB, EN55024) DOC (ICES003 ClassA) Power Source and Power Consumption: 12V DC, PoE (IEEE802.3af compliant) 12 V DC*: 540 mA/ 6.5 W PoE 48 V: 125 mA/ 6.0 W (Class 2 devices) * FOR UL LISTED MODEL(S), ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY. Ambient Operating Temperature: -10 °C to +50 °C (14 °F to 122 °F) Ambient Operating Humidity: Less than 90 % (no condensation) Dimensions: ø150 mm x 44 mm (H) (ø5-29/32 inches x 1-23/32 inches (H)) Mass (approx.): Main body: Approx. 370 g (0.82 lbs) Camera attachment: Approx. 90 g (0.20 lbs) Finish: Main body: ABS resin, sail white	

*1 Converted value
 *2 Refer to "Notes on Windows Vista® / Windows® 7" on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoft® Windows® 7 or Microsoft® Windows Vista®.
 *3 When using IPv6 for communication, use Microsoft® Windows® 7 or Microsoft® Windows Vista®.
 *4 Transmission for 2 streams can be individually set in the same compression method.

Part Names and Functions



Appearance



Trademarks and registered trademarks

Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
 = iPad, iPhone and iPod touch are registered trademarks of Apple Inc.
 = UniPhier is a registered trademark of Panasonic Corporation.
 - "Super Dynamic", "SDII", "SDIII", "SD5", "SD5Link", "i-PRO" and "i-PRO SmartHD" logos are trademarks or registered trademarks of Panasonic Corporation.
 - All other trademarks identified herein are the property of their respective owners.

Important

Safety Precaution: carefully read the operating instructions and installation manual before using this product.
 - Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

- Masses and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- All product pictures are NTSC models.



The SAFE System is an alert notification system not intended to prevent emergencies. Audio Enhancement, our agents, employees, subsidiaries, affiliates and parent companies are exempt from liability for any loss, damage, injury or other consequence arising directly or indirectly from the application of our equipment. In the event of misuse or malfunction of the SAFE System or any of its components, Audio Enhancement, our agents, employees, subsidiaries, affiliates and parent companies are exempt from liability for any loss, damage, injury or other consequence arising directly or indirectly therefrom.