



**Compact Camera & Recorder System with Versatile Operation for Broadcasting, Video Production, Live Streaming and more**

## **AG-UMR20 & AG-UCK20**

The "POVCAM" combines the advantages of the first-generation POVCAM with features that are necessary in today's environment like a touch panel and simultaneous 3G-SDI/HDMI/IP output. The POVCAM can be used as a unit or the recorder alone .

### **Key Features**

Close-up face shots in TV Program Production

At indoor events (e.g. weddings, reality TV shows)

For nature observations, documentaries, sports and webcasts

As a back-up unit for a camera-recorder

For recording and networking from an information Camera

**AVCHD**  
Progressive

**HDMI**<sup>™</sup>  
HIGH DEFINITION MULTIMEDIA INTERFACE

**SD**<sup>™</sup>  
**XC**



## AG-UMR20 & AG-UCK20

<https://eu.connect.panasonic.com/en/products/broadcast-proav/ag-umr20-ag-uck20>

<b>General</b>	
<b>Power</b>	DC 7.28 V (with battery), DC 12 V (with AC adaptor) Camera Head: DC 9 V (supplied from the AG-UMR20)
<b>Power Consumption</b>	In standalone condition: 1.1 A (with battery), 0.7 A (with AC adaptor) With the optional AG-UCK20GJ Camera Head: 2.2 A (with battery), 1.4 A (with AC adaptor)  Camera Head only: 0.6 A
<b>Operating Temperature</b>	0 °C to 40 °C (32 °F to 104 °F)
<b>Operating Humidity</b>	10 % to 80 % (no condensation)
<b>Weight</b>	Approx. 590 g (1.3 lbs) + Approx. 325 g (0.717 lbs)
<b>Dimensions (W x H x D)</b>	100 mm x 53.5 mm x 104 mm(excluding protrusion)  (3-15/16 inches x 2-3/32 inches x 5-1/2 inches) +  64 mm x 72 mm x 131 mm (excluding protrusion)  (2-17/32 inches x 2-27/32 inches x 5-5/32 inches)
<b>Memory Card Recorder</b>	
<b>Recording Media</b>	SDHC memory card (4 GB to 32 GB), SDXC memory card (48 GB to 128 GB) MP4: more than Class10, AVCHD: more than Class4
<b>Recording Slot</b>	2 Slots
<b>System Format</b>	59.94 Hz / 50.00 Hz
<b>Motion Recording</b>	Recording system: MP4, AVCHD Recording mode/Recording time: Please see page 3 for the "Recording Format" table
<b>Still Picture Recording</b>	Recording system: JPEG (DCF/Exif2.2)
<b>Digital Video/Digital Audio</b>	
<b>Output Video Signal</b>	8 bit 4:2:2
<b>Recording Video Signal</b>	8 bit 4:2:0
<b>Video Compression</b>	MP4: MPEG-4, AVCHD: AVC/H.264 High Profile
<b>Recording Audio Signal</b>	48 kHz/16 bit 2 CH
<b>Audio Compression</b>	MP4: LPCM, AVCHD: Dolby Audio
<b>Headroom</b>	12 dB
<b>Video Input/Output</b>	
<b>SDI In</b>	BNC x 1, 0.8 V [p-p], 75 Ω, 3 G/1.5 G HD SDI supported Input format:1080/59.94p LEVEL-A/LEVEL-B, 1080/50p LEVEL-A/LEVEL-B, 1080/29.97PsF/25PsF/23.98PsF, 1080/59.94i/50i, 720/59.94p/50p
<b>SDI Out (Video)</b>	BNC x 1, 0.8 V [p-p], 75 Ω, 3 G/1.5 G HD SDI supported Output format: same as input format
<b>HDMI Out (Video)</b>	Type A connector x 1, VIERA Link not supported Output format: 2160/29.97p/25p/23.98p, 1080/59.94p/50p/29.97p/25p/23.98p/59.94i/50i, 720/59.94p/50p, 480/59.94p, 576/50p
<b>Audio Input/Output</b>	
<b>MIC/Line Input</b>	3.5 mm diameter, stereo mini jack (MIC IN and LINE IN ) MIC: -60 dBV (sensitivity -40 dB equivalent, 0 dB=1 V/Pa 1 kHz), plug in power supported LINE: -10 dBV
<b>SDI Out (Audio)</b>	2 CH (LPCM), switchable gain: 0 dB/-6 dB/-12 dB
<b>HDMI Out (Audio)</b>	2 CH (LPCM)
<b>Headphone</b>	3.5 mm diameter, stereo mini jack x 1
<b>Speaker</b>	20 mm diameter, round x 1
<b>External Terminal</b>	
<b>Camera</b>	20 pin dedicated interface
<b>LAN</b>	IP control LAN connector (RJ-45) Straight/cross cable auto-detect function
<b>Remote</b>	2.5 mm diameter stereo mini jack x 1 (ZOOM, S/S) 3.5 mm diameter mini jack x 1 (FOCUS, IRIS)
<b>USB 2.0</b>	Type Mini-B connector, mass storage (read/write)

<b>DC In 12V</b>	DC 12 V (11.4 V to 12.6 V) EIAJ Type4
<b>Monitor</b>	
<b>LCD Monitor</b>	3.5-type LCD monitor, approx. 1,150,000 dots
<b>Network</b>	
<b>Video Compression (Network)</b>	MP4:MPEG-4, AVCHD:AVC/H.264 High Profile
<b>Audio Compression (Network)</b>	AAC-LC (48kHz, 16 bit, 2 CH, 128 kbps)
<b>Transfer Mode (JPEG)</b>	Resolution 640 x 360:  (JPEG) Frame rate (59.94 Hz): 30 fps, 15 fps, 5 fps  Frame rate (50.00 Hz): 25 fps, 12.5 fps, 5 fps
<b>Transfer Mode (H.264)</b>	Resolution 3840 x 2160/640 x 360:  (H.264) Frame rate (59.94 Hz): 30 fps, 15 fps, 5 fps  Frame rate (50.00 Hz): 25 fps, 12.5 fps, 5 fps  Resolution 1920 x 1080/1280 x 720:  Frame rate (59.94 Hz): 60 fps, 30 fps, 15 fps, 5 fps  Frame rate (50.00 Hz): 50 fps, 25 fps, 12.5 fps, 5 fps  *By the conditions, the frame rate is lower than setting.
<b>Supported Protocol</b>	TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP,  FTP, DHCP, DNS, NTP, IGMP, UPnP, ICMP, ARP,  RTSPoverTCP, RTSPoverHTTP, SSL (TLS), MultiCast/UniCast
<b>IP Connector Cable</b>	LAN cable* (more than category 5) max. 100 m  *STP (Shielded Twisted Pair) recommend
<b>Supported OS</b>	
<b>Windows</b>	Microsoft(R) Windows 10 (32 bit/64 bit), Internet Explorer 11  Microsoft(R) Windows 7 (32 bit/64 bit) SP1, Internet Explorer 11
<b>Mac</b>	MacOS v10.12 Safari10, OS X v10.11 Safari10
<b>Supported Browser</b>	
<b>iOS Device</b>	iPhone/iPad/iPod touch, iOS 10, standard browser
<b>Android</b>	Android OS 4.4, standard browser
<b>Supported Controller</b>	
<b>Controller</b>	AW-RP50, AW-RP120G, AK-HRP200G  *Depending on a model, upgrade is required.
<b>Pickup Devices</b>	1/2.3-type MOS MOS solid state image sensor  (Total pixels: approx. 12.76 megapixels)
<b>Lens</b>	Zoom: optical 20x motorized zoom  Fvalue: F1.8 to F3.6, Focal length: f- 4.08 mm to 81.6 mm  35 mm conversion: 29.5 mm to 612.0 mm  (Hybrid O.I.S mode "OFF")  Filter diameter: 49 mm, ND filter: CLEAR, 1/4, 1/16, 1/64 (built-in)  Shortest shooting distance: 1.5 m (4.9 ft) at zoom range,  3 cm (0.1 ft) at wide angle  IR cut filter : incorporates the ON/OFF control function
<b>Zoom</b>	i. Zoom: x30 (HD), x22 (4K)  Digital zoom: x1.4, x2, x4, x6, x8
<b>Image Stabilizer</b>	Optical image stabilizer (HD/4K)  5-Axis hybrid image stabilizer (HD)
<b>Gain Setting</b>	Automatic, manual 0 dB to 30 dB(1 dB step),  Super Gain 33 dB, 36 dB  *At auto mode, 3 dB to 30 dB (3 dB steps) can be selected with AGC limit setting.
<b>White Balance</b>	ATW, ATW LOCK, AWB A, AWB B, P3200K, P5600K,  VAR (2000 K to 15000 K)
<b>Shutter Speed</b>	59.94i/59.94p mode: 1/60 sec., 1/100 sec., 1/120 sec.,  1/180 sec., 1/250 sec., 1/350 sec., 1/500 sec., 1/750 sec.,  1/1000 sec., 1/1500 sec., 1/2000 sec., 1/3000 sec.,  1/4000 sec., 1/8000 sec.  29.97p mode: 1/30 sec., 1/50 sec., 1/60 sec., 1/100 sec.,  1/120 sec., 1/180 sec. to 1/8000 sec. (same as above)  23.98p mode: 1/24 sec., 1/48 sec., 1/50 sec., 1/60 sec.,  1/100 sec., 1/120 sec., 1/180 sec. to 1/8000 sec. (same as above)  50i/50p mode: 1/50 sec., 1/60 sec., 1/100 sec.,  1/125 sec., 1/180 sec. to 1/8000 sec. (same as above)  25.00p mode: 1/25 sec., 1/50 sec., 1/60 sec., 1/100 sec.,  1/125 sec., 1/180 sec. to 1/8000 sec. (same as above)

<b>Slow Shutter</b>	59.94i/59.94p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec., 1/30 sec. 29.97p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec. 23.98p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec. 50i/50p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec., 1/25 sec., 25.00p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec.
<b>Synchro Scan</b>	59.94i/59.94p mode: 1/60.0 sec. to 1/285.6 sec. 29.97p mode: 1/30.0 sec. to 1/206.5 sec. 23.98p mode: 1/24.0 sec. to 1/280.1 sec. 50i/50p mode: 1/50.0 sec. to 1/209.2 sec. 25p mode: 1/25.0 sec. to 1/224.3 sec.
<b>Minimum Illumination</b>	0.2 lx (slow shutter: 1/2 sec., gain: +36 dB)
<b>Horizontal Resolution</b>	1,300 TV (HDMI output 2160/29.97p, when 25.00p playback) 1,000 TV (HDMI output 1080/59.94p, when 50.00p playback)
<b>Audio In</b>	Built-in microphone (2 CH stereo)
<b>Connector</b>	20 pin dedicated interface (to the AG-UMR20)