



4K Memory Card Camera Recorder

## AG-UX90

UHD/FHD Camcorder with wide-angle, 15x optical zoom and variable frame-rates

## **Key Features**

15x optical zoom and 24.5mm wide-angle LEICA DICOMAR lens

1.0-type UHD MOS sensor with UHD 25p or FHD 50p recording capabilities

Intelligent Auto-Focus supports smooth and fast focusing when shooting in 4K

Advanced Optical Image Stabilisation (OIS)

Variable frame-rate between 2 and 60fps at 1080p



## Panasonic CONNECT



## AG-UX90

https://eu.connect.panasonic.com/sk /en/broadcast-proav/professionalcamcorders/ag-ux90



General -> Power Supply	DC 7.28 V (when the battery is used)
	DC 12 V (when the AC adaptor is used)
General -> Power Consumption	12.2 W (when the LCD monitor is used)
General -> Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
General -> Operating Humidity	10 % to 80 % (no condensation)
General -> Weight <sup>*1</sup>	Body: Approx. 1.9 kg (4.19 lb) (body only, excluding lens hood, battery, and accessories)
-	Shooting: Approx. 2.3 kg (5.07 lb) (including lens hood, battery, and eye cup)
General -> Dimensions *1	W 169 mm x H 195 mm x D 340 mm(6-21/32 inches x 7-11/16 inches x 13-3/8 inches)
	(excluding protrusion and eye cup)
	'W 169 mm x H 195 mm x D 382 mm (6-21/32 inches x 7-11/16 inches x 15-1/32 inches
	(including eye cup, excluding protrusion)
Camera Unit -> Image Sensor	1.0-type MOS solid state image sensor
Camera Unit -> Number of Pixels	17.78 megapixel FHD 50.00p/25.00p)
	8.59 megapixel (UHD 25.00p)
Camera Unit -> Lens	Optical image stabilizer lens, optical 15x motorized zoom
	F2.8 to F4.5 (f=8.8 mm to 132 mm)
	35 mm equivalent: f=24.5 mm to 367.5 mm: FHD 59.94p/29.97p/23.98p
	f=35.4 mm to 531.0 mm: UHD 29.97p/23.98p
Camera Unit -> Filter Diameter	67 mm
Camera Unit -> Shortest Shooting Distance(M.O.D.)	Approx. 1.0 m from the front lens
Camera Unit -> Optical Filter -> ND Filter	4 Positions (OFF, 1/4, 1/16, 1/64)
Camera Unit -> Gain Setting	L/M/H selector switch
	Standard mode: 0 dB to 30 dB (Adjustable in 1 dB steps) (Automatic setting can be assigned to L/M/H)
	Extended ON: -3 dB to 30 dB (Adjustable in 1 dB steps) (Automatic setting can be assign to L/M/H)
	33 dB and 36 dB switched (when assigning [S.GAIN] to the USER button)
Camera Unit -> Color Temperature Setting	ATW, ATW LOCK, Ach, Bch, preset 3200 K/preset 5600 K/VAR (2000 K to 15000 K)
Camera Unit -> Shutter Speed ->	1/50 sec., 1/60 sec., 1/100 sec., 1/125 sec., 1/180 sec., 1/250 sec., 1/350 sec., 1/500 sec.
[50.00 Hz] 50i/50p mode	1/750 sec., 1/1000 sec., 1/1500 sec., 1/2000 sec., 1/3000 sec., 1/4000 sec., 1/8000 sec
Camera Unit -> Shutter Speed ->	1/25 sec., 1/50 sec., 1/60 sec., 1/100 sec., 1/125 sec., 1/180 sec., 1/250 sec., 1/350 sec.
[50.00 Hz] 25p mode	1/500 sec., 1/750 sec., 1/1000 sec., 1/1500 sec., 1/2000 sec., 1/3000 sec., 1/4000 sec.,
Camera Unit -> Shutter Speed (Slow	1/8000 sec. 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec., 1/25 sec.
Shutter) -> [50.00 Hz] 50i/50p mode Camera Unit -> Shutter Speed (Slow	1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec.
Shutter) -> [50.00 Hz] 25p mode Camera Unit -> VFR Recording Frame	2, 12, 21, 23, 25, 27, 30, 37, 50 (fps)
Rate -> [50.00 Hz] 25p mode	•
Camera Unit -> Minimum Subject Illumination	1.1 lx (F2.8, Super Gain 36 dB, Manual slow shutter 1/25s)
Camera Unit -> Digital Zoom	2x/5x/10x,
	i.Zoom: max. 25x (optical zoom + digital zoom)
Camera Unit -> Lens Hood	Hood with lens cover
Memory Card Recorder -> Recording Media	SDHC memory card (4 GB to 32 GB), SDXC memory card (48 GB to 128 GB), UHS-I supported
in e ulu	

Memory Card Recorder -> System	50 Hz
Frequency Memory Card Recorder -> Recording	
Memory Card Recorder -> Recording File Format	ואוטע, ואור <del>יו</del> , אעכתט
Memory Card Recorder -> Still Picture	JPEG (DCF/Exif2.2)
Recording Mode	Madian Distance Discharde
Memory Card Recorder -> Still Picture Recording	Motion Picture Playback:
_	8.3 M: 3840 x 2160 (16:9), 2.1 M: 1920 x 1080 (16:9), 0.9 M: 1280 x 720 (16:9)
Memory Card Recorder -> Recording Mode	Recording Mode: Please see the "Recording Format" table.
	Please see the "Recording Time" table.
Time	
Memory Card Recorder -> 2 Slot	Relay, Simultaneous
Functions	
Digital Video -> Video Compression	MPEG-4 AVC/H.264 High Profile
Format -> MOV Digital Video -> Video Compression	MPEG-4 AVC/H.264 High Profile
Format -> MP4	NFLO-4 AVC/11.204 High Flome
Digital Video -> Video Compression	MPEG-4 AVC/H.264 High Profile
Format -> AVCHD	
Digital Video -> External Output Video	8bit 4:2:2
Signal *3	19hit 4:2:0
Digital Video -> Recording Video Signa Digital Audio -> Recording Audio	18bit 4.2:0 48 kHz/16 bit 2 ch
Signal	
Digital Audio -> Audio Recording	MOV: LPCM
Format	MP4: LPCM
	AVCHD: Dolby Audio
Digital Audio -> Headroom	AVCHD: Dolby Audio 12 dB
Video Input/Output -> VIDEO OUT	VIDEO OUT connector x 1
Video Input/Output -> GL IN/VIDEO	Type A connector x 1, VIERA Link not supported
OUT	
	Output format: 2160/25.00p, 1080/50p/25p/50i, 720/50p, 576/50
Video Input/Output -> HDMI	Type A connector x 1, VIERA Link not supported
	Output format: 2160/25.00p, 1080/50p/25p/50i, 720/50p, 576/50
Audio Input/Output -> Built-	Stereo microphone
inMicrophone	
Audio Input/Output -> AUDIO IN	XLR (3-pin) x 2 (INPUT1, INPUT2)
	high impedance, LINE/MIC/MIC+48V (switchable SW)
	high impedance, LINE/MIC/MIC+48V (switchable SW)
	high impedance, LINE/MIC/MIC+48V (switchable SW) LINE: +4 dBu/0 dBu (switchable menu)
Audio Input/Output -> AUDIO OUT	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2
Audio Input/Output -> HDMI OUT	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM)
	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2
Audio Input/Output -> HDMI OUT	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r 20 mm diameter, round x 1
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speake Other Input/Output -> DC IN	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speake Other Input/Output -> DC IN	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S)
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker Other Input/Output -> DC IN Other Input/Output -> REMOTE <sup>*5</sup>	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS)
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S)
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 ( DEVICE )	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only)
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 ( DEVICE ) Other Input/Output -> USB 3.0	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS)
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 ( DEVICE ) Other Input/Output -> USB 3.0 ( HOST )	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 ( DEVICE ) Other Input/Output -> USB 3.0 ( HOST ) Monitor/Viewfinder -> LCD Monitor	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported 3.5-type LCD monitor, Approx. 1,150,000 dots
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speake Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 (DEVICE) Other Input/Output -> USB 3.0 (HOST ) Monitor/Viewfinder -> LCD Monitor Monitor/Viewfinder -> Viewfinder	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speaker Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 ( DEVICE ) Other Input/Output -> USB 3.0 ( HOST ) Monitor/Viewfinder -> LCD Monitor	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported 3.5-type LCD monitor, Approx. 1,150,000 dots 0.24-type EVF, Approx. 1,560,000 dots equivalent
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speake Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 (DEVICE) Other Input/Output -> USB 3.0 (HOST ) Monitor/Viewfinder -> LCD Monitor Monitor/Viewfinder -> Viewfinder	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported 3.5-type LCD monitor, Approx. 1,150,000 dots
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speake Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 (DEVICE) Other Input/Output -> USB 3.0 (HOST ) Monitor/Viewfinder -> LCD Monitor Monitor/Viewfinder -> Viewfinder	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported 3.5-type LCD monitor, Approx. 1,150,000 dots 0.24-type EVF, Approx. 1,560,000 dots equivalent
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speake Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 (DEVICE) Other Input/Output -> USB 3.0 (HOST ) Monitor/Viewfinder -> LCD Monitor Monitor/Viewfinder -> Viewfinder	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported 3.5-type LCD monitor, Approx. 1,150,000 dots 0.24-type EVF, Approx. 1,560,000 dots equivalent
Audio Input/Output -> HDMI OUT Audio Input/Output -> Headhone Audio Input/Output -> Built-in Speake Other Input/Output -> DC IN Other Input/Output -> REMOTE *5 Other Input/Output -> USB 3.0 (DEVICE) Other Input/Output -> USB 3.0 (HOST ) Monitor/Viewfinder -> LCD Monitor Monitor/Viewfinder -> Viewfinder	LINE: +4 dBu/0 dBu (switchable menu) MIC: -40 dBu/-50 dBu/-60 dBu (switchable menu) AUDIO OUT x 2 2 ch (LPCM) 3.5 mm diameter stereo mini jack x 1 r20 mm diameter, round x 1 DC 12 V (DC 11.4 V to 12.6 V), EIAJ type 4 2.5 mm diameter super mini jack x 1 (ZOOM S/S) 3.5 mm diameter mini jack x 1 (FOCUS IRIS) Micro-B connector, 10-pin, Mass storage function (read only) Standard-A connector, 9-pin, external media device connection *3, bus power supported 3.5-type LCD monitor, Approx. 1,150,000 dots 0.24-type EVF, Approx. 1,560,000 dots equivalent 1. Weight and dimensions shown are approximate.

3. External media devices with a capacity of below 32 GB or a capacity above 2 TB cannot be used.