



Clifton Cameras Product Specification

Panasonic HC-X2E Camcorder

Sensor Section

Image Sensor: 1.0-type MOS Sensor

Effective Pixels: 15.03 megapixels

Latitude: 13 stops (v-log)

Lens Section

F Value: F2.8-4.5

Optical Zoom: 20x

Focal Length: 8.8 -176mm

35mm Film Camera Equivalent: 24.5-490mm

Filter Diameter: 67mm

Lens Brand: Panasonic Lens

Camera Section

Minimum Illumination: 0.6 lx (F2.8, Super Gain + when the shutter speed is 1/30 sec)

Focus: Auto/Manual

Zoom:

- i.Zoom OFF = 20x
- i.Zoom ON = Max. 32X (UHD 24X)
- Digital Zoom 2X/ 5X/ 10X

ND Filter: 1/ 4, 1/16, 1/64, Off

IR Filter: Incorporates the ON/OFF control function

White Balance: Auto / ATW LOCK / 3200K / 5600K / VAR (2000K—15000K) / Ach Fixed / Bch Fixed

Shutter Speed:

59.94 Hz mode:

59.94i/59.94p: 1/60, 1/100, 1/120, 1/180, 1/250, 1/350, 1/500, 1/750, 1/1000,
1/1500, 1/2000, 1/3000, 1/4000, 1/8000 sec
29.97p: 1/30, 1/50, 1/60, 1/100, 1/120, 1/180, 1/250, 1/350, 1/500, 1/750, 1/1000,
1/1500, 1/2000, 1/3000, 1/4000, 1/8000 sec
23.98p: 1/24, 1/48, 1/50, 1/60, 1/100, 1/120, 1/180, 1/250, 1/350, 1/500, 1/750,
1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/8000 sec



50.00 Hz Mode:

50i/50p: 1/50, 1/60, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/750, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/8000 sec
25p: 1/25, 1/50, 1/60, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/750, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/8000 sec

Slow Shutter Speed:

59.94 Hz Mode:

59.94i/59.94p: 1/8, 1/15, 1/30 sec
29.97p: 1/8, 1/15 sec
23.98p: 1/6, 1/12 sec

50.00 Hz Mode:

50i/50p: 1/6, 1/12, 1/25 sec
25p: 1/6, 1/12 sec

Synchro Scan:

59.94 Hz Mode:

59.94i/59.94p: 1/60.0 — 1/249.6 sec
29.97p: 1/30.0 — 1/249.8 sec
23.98p: 1/24.0 — 1/249.7 sec

50.00 Hz Mode:

50i/50p: 1/50.0 — 1/250.0 sec
25p: 1/25.0 — 1/250.0 sec

VFR Recording Frame Rate:

59.94 Hz Mode: 2, 12, 15, 20, 22, 24, 26, 28, 30, 32, 34, 36, 45, 48, 60 fps

50.00 Hz Mode: 2, 12, 21, 23, 25, 27, 30, 37, 50 fp

Super Slow Recording Frame Rate:

59.94 Hz Mode: FHD 120 fps (1/2 speed at 60p, 1/4 speed at 30p, 1/5 speed at 24p)

50.00 Hz Mode: FHD 100 fps (1/2 speed at 50p, 1/4 speed at 25p)

Iris: Auto/Manual

Image Stabiliser: Ball O.I.S. 5-Axis HYBRID O.I.S + (UHD/FHD)

Recording Section

Recording Media: SDHC/SDXC Memory Card, UHS-I Compatible

Recording Format: MOV. MP4. AVCHD

Video Compression Method:

MOV(HEVC)/MP4(HEVC): H.265/MPEG-4 HEVC Main10 Profile

MOV, MP4: H.264/MPEG-4 AVC High Profile

AVCHD: H.264/MPEG-4 AVC High Profile



Audio Compression Method:

MOV: LPCM, 48kHz/24bit, 2ch
MP4: AAC, 48kHz/16bit, 2ch
AVCHD: Dolby Audio, 48kHz/16bit, 2ch

System Frequency: 59.94Hz/ 50.00Hz

Recording/ Playback Mode:

MOV (HEVC):

[4:2:0 10bit] UHD 3840x2160 59.94p/50.00p HEVC LongGOP 200M: Average 200Mbps (VBR)
UHD 3840x2160 59.94p/50.00p HEVC LongGOP 100M: Average 100Mbps (VBR)
UHD 3840x2160 29.97p/25.00p/23.98p HEVC LongGOP 150M: Average 150Mbps (VBR)

MOV:

[4:2:0 8bit] UHD 3840x2160 59.94p/50.00p 420LongGOP 150M: Average 150Mbps (VBR)
UHD 3840x2160 29.97p/25.00p/23.98p 420 LongGOP 100M: Average 100Mbps (VBR)
[4:2:2 10bit] UHD 3840x2160 29.97p/25.00p/23.98p 420 LongGOP 150M: Average 150Mbps (VBR)
FHD 1920x1080 59.94p/50.00p ALL-I 200M: Average 200Mbps (VBR)
FHD 1920x1080 59.94p/50.00p ALL-I 100M: Average 100Mbps (VBR)
FHD 1920x1080 29.97p/25.00p/23.98p ALL-I 100M: Average 100Mbps (VBR)
FHD 1920x1080 59.94p/50.00p 422 LongGOP100M: Average 100Mbps (VBR)
FHD 1920x1080 59.94i/50.00i/29.97p/25.00p/23.98p 422 LongGOP 50M: Average 50Mbps (VBR)

MP4 (HEVC):

[4:2:0 10bit] UHD 3840x2160 59.94p/50.00p HEVC LongGOP 100M: Average 100Mbps (VBR)
UHD 3840x2160 29.97p/25.00p/23.98p HEVC LongGOP 72M: Average 72Mbps (VBR)

MP4:

[4:2:0 8bit] UHD 3840x2160 29.97p/25.00p/23.98p 420 LongGOP 72M: Average 72Mbps (VBR)
FHD 1920x1080 59.94p/50.00p/23.98p 420 LongGOP 50M: Average 50Mbps (VBR)

AVCHD:

[4:2:0 8bit] PS 1920x1080 59.94p/50.00p: Average 25Mbps (VBR)
PH 1920x1080 59.94i/50.00i/23.98p: Average 21Mbps (VBR)
HA 1920x1080 59.94i/50.00i: Average 17Mbps (VBR)
PM 1280x720 59.94p/50.00p: Average 8Mbps (VBR)

Live Streaming

Video Compression Format: H.262/MPEG-4 AVC Main Profile, High Profile

Video Resolution: 1920 X 1080 (FHD), 1280 x 720 (HD), 640 X 360, 320 x 180

Streaming Method: Unicast, Multicast

Frame rate:

System frequency = 59.94 Hz: 60fps, 30fps, 24fps

System frequency = 50.00 Hz: 50fps, 25fps

Bit Rate: 24 Mbps, 20 Mbps, 16 Mbps, 14 Mbps, 8 Mbps, 6 Mbps, 4 Mbps, 3 Mbps, 2 Mbps, 1.5 Mbps, 1 Mbps, 0.7 Mbps, 0.5 Mbps



Audio Compression Format: AAC-LC, 48kHz/ 16 bit, 2ch

Network Protocol: RTSP/RTP/RTMP/RTMPS

Still Image Section

Recording Format: JPEG (DCF/ Exif2.2)

Recording Image Size: Video Playback Mode: 3840 x 2160 (16:9), 1920 x 1080 (16:9), 1280 x 720 (16:9)

General Section

Power Supply: 7.28V (Battery)/ 12V (AC Adaptor)

Power Consumption: 20.6W (LCD Monitor)

Dimensions (W x H x D): Approx. 173 x 195 x 344mm (6.82 x 7.68 x 13.55 inch)

Weight:

Body: approx. 2040g (4.50 lb) (body and handle only, excluding lens hood, battery, and accessories)

Shooting: approx. 2490g (5.49 lb) (including lens hood, standard battery, two SD cards, microphone holder, XLR caps and eyecup)

LCD Monitor:

8.88 cm (3.5-inch) Wide LCD monitor (About 2,760,000 dots)

Viewfinder: 1.0 cm (0.39-inch) Wide OLED EVF (About 1,770,000 dots)

Manual Ring: Focus/ Zoom/ Iris

Accessory Shoe: Yes

Interface Section

Video:

SDI Out:

BNC x 1, 0.8V[p-p], 75Ω, 3G/1.5G HD-SDI, supports time code output and SDI remote recording control
1080/59.94p LEVEL-A/50.00p LEVEL-A, 1080/29.97PsF/25.00PsF/23.98PsF, 1080/25.00p/23.98p, 1080/59.94i/50.00i,
720/59.94p/50.00p

HDMI:

Type A x 1 (VIERA Link not supported), supports time code output and remote recording control

Output format: 4:2:2 10bit

2160/59.94p/50.00p/29.97p/25.00p/23.98p,
1080/59.94p/50.00p/29.97p/25.00p/23.98p/59.94i/50.00i,
720/59.94p/50.00p, 480/59.94p, 576/50.00p

Audio Input:

Built-in Microphone: Stereo Microphone



Audio Input:

XLR (3 pins) x 2
Input high impedance, LINE/MIC/MIC+48 V (switchable SW)
LINE: +4dBu/0dBu (switchable menu)
MIC: -40dBu/-50dBu/-60dBu (switchable menu)

Audio Output:

SDI: 2ch (LPCM)
HDMI: 2ch (LPCM)
Headphone: 3.5 mm diameter stereo mini jack x 1
Speaker: 20 mm diameter, round x 1

Other Input/Output:

TC IN/OUT: BNC x 1, input/output (switchable menu)
Input: 1.0V __ 4.0V [p-p], 10K Ω
Output: 2.0V \pm 0.5V [p-p], low impedance
Camera Remote: 2.5mm super mini jack x 1
USB:
Type-C x 1, USB3.1 Gen 1, HOST/DEVICE combined (switchable menu)
HOST: Bus power supported (5V, 0.9A), USB tethering function
DEVICE: mass storage function (read only)
LAN: RJ-45 x1, 1000BASE-T/100
DC IN: DC 12V (11.4V – 12.6V) EIAJ Type 4

Wi-Fi

Standard: IEEE 802.11 b/g/n

Frequency: 2412 MHz to 2462 MHz [1 to 11 ch]

Standard Accessory

AC Adaptor: Yes

AC Cable: Yes

Rechargeable Battery Pack: Yes (5,900mAh)

Battery Charger: Yes

Microphone Holder: Yes

Microphone Holder Screws: Yes

Input Terminal Cap: Yes

Eye Cup: Yes



Lens Hood: Yes