

Specifications

| | | | |
|------------------------|--|---|--|
| GENERAL SPECIFICATIONS | Power | DC12V (AC adapter), DC7.2V (battery) | |
| | Power consumption | Approx. 24W (Default setting) | |
| | Dimensions (W x H x D) | 188mm x 227mm x 437mm (with lens hood) | |
| | Weight | 3.6kg (with lens hood and battery, without wireless LAN antenna unit) | |
| | Temperature | Operating: 0°C to 40°C, Storage: -20°C to 50°C | |
| CAMERA | Humidity | Operating: 30% to 80%, Storage: Under 85% | |
| | Image sensor | 1" (effective) CMOS, effective number of pixels: approx 9.35 million | |
| | Synchronizing | Internal synchronization | |
| | Stabilizer | Optical image stabilizer | |
| | Sensitivity | F11 at 2000lx 89.9% reflectance | |
| | Lens | F2.8 (wide) to F4.5 (tele), f=9.43mm to 188.6mm (f=28mm to 560mm (35mm equivalent)) | |
| | Filter diameter | 82mm | |
| | Shutter speed | 1/6 (48Hz), 1/7.5 (60Hz) to 1/10000 | |
| | Gain | -6, -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 Lolux (30, 36) dB, AGC | |
| | ND filter | OFF, 1/4, 1/16, 1/64 | |
| VIDEO/AUDIO RECORDING | Viewfinder | 0.4" LCOS approx 3.68M pixels Quad VGA (1280 x 960), 1280 x 720 at 16:9 | |
| | LCD monitor | 3.97" LCD approx. 1.15M pixels WVGA (800 x 480), 800 x 450 at 16:9 | |
| LIVE VIDEO STREAMING | Recording media | SDHC/SDXC memory card x 2 | 4K (150Mbps): UHS-1 U3, 4K (70Mbps)/HD (70Mbps/50Mbps): Class 10, HD (35Mbps): Class 6, SD: Class 4, Web: Class 4, High-Speed: UHS-1 U3, Exchange (U model)/MP4 (E model): Class 4 |
| | Video codec | SSD (Solid State Drive) Type M.2 SATA With KA-MC100G (optional) | |
| | File format | ProRes 422, MPEG-4 AVC/H.264, MPEG-2 [GY-HC550] | |
| | Audio recording | QuickTime, MP4, MXF [GY-HC550] | |
| INTERFACES | Protocol | LPCM 2ch, 48kHz/24-bit/16-bit, μ-Law 2ch (Web), AAC 2ch (Exchange/MP4), Detail information is shown in Recording Formats chart below. | |
| | Resolution and bit rate | MPEG2-TS/UDP, MPEG2-TS/TCP, MPEG2-TS/RTP, RTSP, Zixi, SRT, RTMP, RTMPS, Facebook Live (RTMPS), YouTube Live (RTMP) | |
| | Return over IP | >> Refer to "Streaming Format Availability" chart on page 3 for details. | |
| PROVIDED ACCESSORIES | Audio | RTSP/RTP, Zixi [GY-HC550], Icecast (Audio) | |
| | Video/Audio output | AAC 2ch 128Kbps (1.5Mbps over), 64Kbps (0.8Mbps under) | |
| | Audio input | 3G-SDI output (BNC x 1) (up to 1920 x 1080 60p 4:2:2 10-bit), HDMI output x 1 (up to 3840 x 2160 60p 4:2:2 10-bit) | |
| | Headphone | XLR x 2 (MIC, +48V/LINE), ø3.5mm mini jack x 1 | |
| | Remote | ø3.5mm mini jack x 1 | |
| | Time code input/output | RCA x 1 | |
| | USB | HOST x 1 (network connection, USB 2.0) | |
| | Ethernet | RJ-45 x 1 | |
| | Extended slot | KA-EN200, KA-MC100G, and for future expansion purposes | |
| | Wireless LAN [GY-HC550] | Built-in (2.4GHz/5GHz) MIMO with dual external antennas | |
| PROVIDED ACCESSORIES | Battery (BN-VC296) x 1, wireless LAN antenna x 2 [GY-HC550], AC adapter, power cable, lens hood, vent hood | | |

Various Codecs and Recording Formats

| System | Video format | Resolution | Frame rate | Bit rate | Audio | Rec time (min.) | | |
|-------------------------------------|--|---|------------------------------|---------------------------|----------------------|----------------------|----------------------|---------------------|
| 4K UHD | ProRes 422 HQ | 3840 x 2160 | 59.94p/50p/29.97p/25p/23.98p | 1768/1475/884/731/707Mbps | LPCM 2ch 48kHz/24bit | 67/80/134/161/167 | | |
| | ProRes 422 | | | 1178/983/589/492/471Mbps | LPCM 2ch 48kHz/24bit | 101/121/201/240/251 | | |
| | ProRes 422 LT | | | 821/684/410/342/328Mbps | LPCM 2ch 48kHz/24bit | 144/173/288/345/359 | | |
| | QuickTime (MPEG-4.AVC/H.264) | 3840 x 2160 | 29.97p/25p/23.98p | 150Mbps | LPCM 2ch 48kHz/24bit | 50 | 64GB SD Card | |
| HD | ProRes 422 HQ | 1920 x 1080 | 59.94p/50p/29.97p/25p/23.98p | 440/367/220/184/176Mbps | LPCM 2ch 48kHz/24bit | 240/290/480/570/600 | | |
| | | | | 293/245/147/122/117Mbps | LPCM 2ch 48kHz/24bit | 360/430/710/850/890 | | |
| | QuickTime (MPEG-4.AVC/H.264) | 1920 x 1080 | 59.94p/50p | 4:2:2 10-bit | 70Mbps (422 XHQ) | LPCM 2ch 48kHz/24bit | 105 | |
| | | | | | 50Mbps (XHQ) | LPCM 2ch 48kHz/24bit | 145 | |
| | | | | | 50Mbps (UHQ) | LPCM 2ch 48kHz/16bit | 147 | |
| | | | | | 35Mbps (UHQ) | LPCM 2ch 48kHz/16bit | 207 | |
| | QuickTime/MXF (MPEG-2 Long GOP) [GY-HC550] | 1920 x 1080 | 59.94p/50p | 4:2:0 8-bit | 35Mbps (HQ) | LPCM 2ch 48kHz/16bit | 206 | |
| | | | | | 25Mbps (SP) | LPCM 2ch 48kHz/16bit | 283 | |
| | | | | | 12Mbps (LP) | LPCM 2ch 48kHz/16bit | 580 | |
| | | | | | 8Mbps (LP) | LPCM 2ch 48kHz/16bit | 794 | |
| Exchange (U model) MP4 (E/EC model) | 1920 x 1080 | 59.94p (U model only) / 50p (E/EC model only) | 4:2:0 8-bit | 12Mbps (LP) | LPCM 2ch 48kHz/16bit | 580 | | |
| | | | | 8Mbps (LP) | LPCM 2ch 48kHz/16bit | 794 | | |
| SD | QuickTime (MPEG-4.AVC/H.264) | 720 x 480 (U model) | 59.94i | 4:2:0 8-bit | 8Mbps (HQ) | LPCM 2ch 48kHz/16bit | 785 | 64GB SD card |
| | | 720 x 576 (E/EC model) | 50i | 4:2:0 8-bit | 8Mbps (HQ) | LPCM 2ch 48kHz/16bit | 785 | |
| WEB (Proxy) | QuickTime (MPEG-4.AVC/H.264) | 1280 x 720 | 60p/50p | 4:2:0 8-bit | 6Mbps (LP) | LPCM 2ch 48kHz/16bit | 1040 | |
| | | 720 x 480 | 59.94i | | 8Mbps (HQ) | μ-law 2ch 16kHz | 760 | |
| | | 720 x 576 | 50i | | 3Mbps (HQ) | 2160 | | |
| | | 960 x 540 | 29.97p/25p/23.98p | | 1.2Mbps (LP) | 4720 | | |
| High-Speed | QuickTime (MPEG-4.AVC/H.264) | 1920 x 1080 | 120fps | 59.94p | 4:2:2 10-bit | 70Mbps (XHQ422) | LPCM 2ch 48kHz/24bit | (Defers by setting) |
| | | | 100fps | 50p | | 50Mbps (XHQ422) | | |
| | | | 120fps | 59.94p/29.97p/23.98p | 4:2:0 8-bit | 50Mbps (XHQ) | LPCM 2ch 48kHz/16bit | |
| | | | 100fps | 50p/25p | | 35Mbps (UHQ) | | |
| | | | 120fps | 59.94p/29.97p/23.98p | 4:2:0 8-bit | 50Mbps (XHQ) | LPCM 2ch 48kHz/16bit | |
| | | | 100fps | 50p/25p | | 35Mbps (UHQ) | | |
| | | | 120fps | 29.97p/23.98p | 4:2:0 8-bit | 35Mbps (UHQ) | LPCM 2ch 48kHz/16bit | |
| | | | 100fps | 25p | | 35Mbps (UHQ) | | |

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JVC Professional Video website



USA
pro.jvc.com



Europe
eu.jvc.com/pro



GY-HC550
GY-HC500

CONNECTED CAM™



Photo shows GY-HC550 with optional microphone.



Ready for Various Recording Needs

- H.265/HEVC Streaming
- Apple ProRes 422 Recording

Multi-Purpose Slot for Expandability



Ready for Quality, Reliable Streaming

Variety of QoS Technologies

- Zixi
- SRT
- SMPTE 2022-1

H.265/HEVC KA-EN200G: H.265/HEVC Streaming Adapter



With the optional KA-EN200G H.265/HEVC Streaming Adapter attached, high-quality and efficient IP video transmission is possible.

- H.265 compression produces similar or better image quality than H.264 at 50% of bitrate.
- Supports contribution quality of 4:2:2 10-bit HEVC encoding.
- Encodes HDR video with HLG or J-LOG Gamma LUTs.
- Supports UDP, Zixi and SRT streaming protocols.

SSD KA-MC100G: SSD Media Adapter



You can use a large-capacity, readily-available SSD (SATA M.2 SSD Type2280)* as recording media. Just insert it in the optional KA-MC100G and attach to the camera. SSD media delivers excellent sequential read speed to tackle professional workload and its high-capacity extends recording time of 4K UHD video. High-speed transfer of huge amounts of recorded footage is also available.

* Approved SSD media should be used. Refer to the JVC website for detailed information.

ProRes 4K UHD/HD 60p/50p ProRes 422 10-bit Recording

By using the SSD media, ProRes 422 recording becomes possible for attention-grabbing 4K/HD 60p/50p image creation. ProRes 422 offers virtually lossless intra-frame compression, which speeds up post-production. Footage is recorded in native file formats that are understood by most major editing applications without transcoding. This is helpful for efficient workflow of editing and post process. The 4:2:2 format also provides richer color information and 10-bit recording delivers rich gradations—a definite advantage for grading work after recording.

Backup Recording to SSD

Backup recording to record ordinary Rec Start/Stop-controlled footage in the SD Card of slot A while recording all data on the SSD even when slot A is paused.

SRT Various Protocols for QoS including SRT, Zixi*, and SMPTE 2022-1

For quality, reliable streaming, the CONNECTED CAM camcorders feature various QoS (Quality of Service) capabilities including Zixi, SRT and SMPTE 2022-1. Forward error correction (FEC), automatic repeat request (ARQ), and adaptive bitrate control are supported to ensure error-free video delivery in packet loss environments such as when streaming over cellular networks.

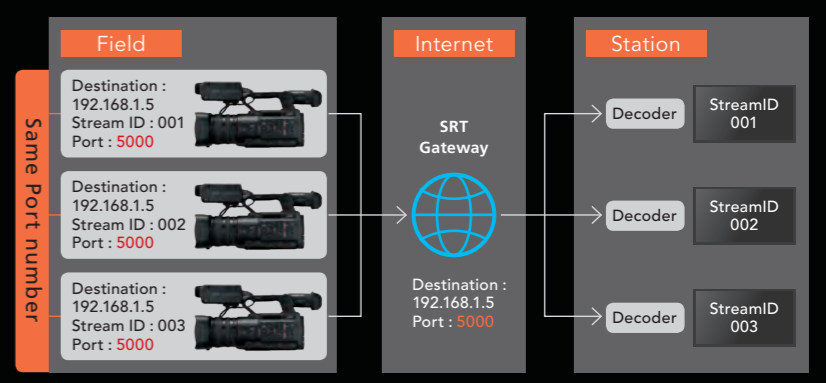
* Zixi is not available with GY-HC500. For GY-HC550, Zixi and SRT protocols do not co-exist as it requires exclusive firmware to install. Choose either protocol to use when installing initially.

SRT – Powerful Video Transport Protocol

SRT (Secure Reliable Transport) is a video transport protocol that optimizes video streaming performance even under unstable networks. With ARQ and FEC support, SRT brings together encryption, packet loss recovery, and jitter prevention to preserve the integrity and quality of video streaming.

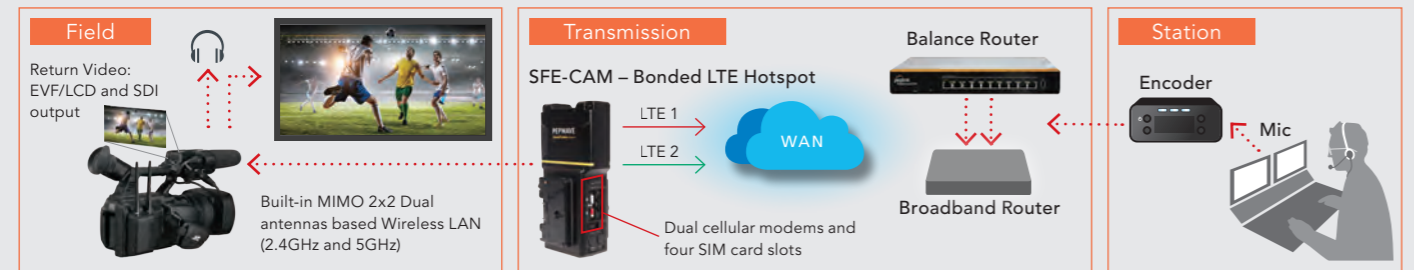
SRT Stream ID for Added Security

Stream ID protects a video channel from unauthorized access. The SRT decoder only accepts streams with embedded, encoder-specified Stream IDs and all other streams are ignored. To receive multiple streams differentiated by unique Stream IDs, only a single port is necessary so that the additional security is assured when delivering video over public networks.



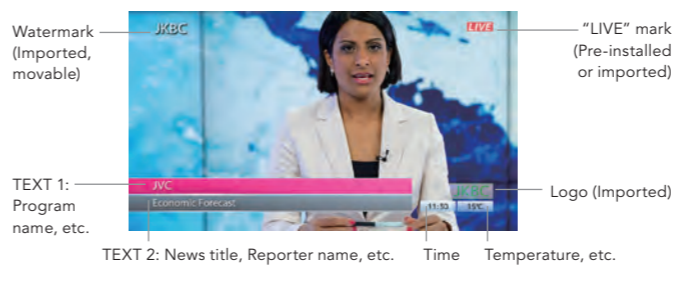
IFB and Return Video over IP (RTSP/RTP, Zixi [GY-HC550], Icast (Audio))

The GY-HC550/HC500 features built-in IFB and Return Video decoders capable of receiving the H.264 stream over the Internet via RTSP "Pull" protocol (Return Video) and Icast streams for the IFB. The camera can receive either IFB or Return Video, not both simultaneously. Return Video is displayed in the viewfinder and LCD and output via SDI when the pre-assigned button "Return Video" is pressed once. The second press would return the LCD/EVF/SDI to the live video output. The HDMI output does not switch to Return Video and outputs live video all the time.



SFE-CAM is a bonded cellular hotspot that connects interactively to multiple GY-HC550/HC500 camcorders and features Peplink's patented SpeedFusion™ technology. SFE-CAM bonds multiple cellular and wireless LAN connections enabling the user to send digital video at greater speeds than you could with a single modem. Provided with dual cellular modems with redundant SIM slots and dual band Wireless LAN, you can use up to four different providers for bandwidth bonding.

Broadcast Info Overlay on HD Video and Streaming GY-HC550



Real-time broadcast information overlays are available for HD recorded video or streamed video without an external CG or production switcher.

- This feature is not available in 4K or SD mode.
- Overlay designs can be created in various language characters using JVC's SDP Generator (free software).

IP Remote Control with Viewing

Various camera operations can be controlled via wireless/wired LAN from a smartphone, tablet and PC.

Auto/Progressive FTP

During shooting, recorded video clips are automatically uploaded to the server.



NTP (Network Time Protocol)

The combination of GY-HC550/HC500 and KM-IP6000/IP4100 provides an affordable multi-camera live production solution with Network Time Protocol. Suitable for compact live production and streaming studios to deliver live events such as concerts, sports, ceremonies, and conferences.

VITC (Vertical Interval Time Code)

Can use the industry-standard TC, compatible with Haivision, VITEC, and other decoders.

Built-in GPS GY-HC550

Enables location information to be recorded or streamed as metadata.

CONNECTED CAM STUDIO

LIVE STREAMING PRODUCTION SUITE

KM-IP6000 (6-input) / KM-IP4100 (4-input)

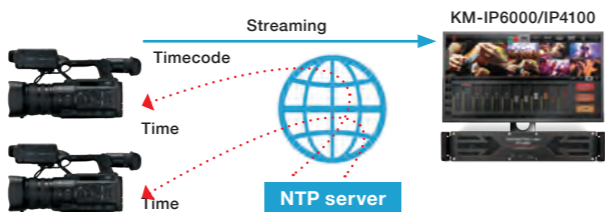
KM-IP6000/IP4100 Series is the centerpiece of a complete IP workflow for news, sports, worship and education. This self-contained control room features a production switcher that offers instant-replays and slow motion with an intuitive touch-screen operation.



- HD-SDI input, IP stream input, NDI input (x6 for KM-IP6000, x4 for KM-IP4100)
- Integrated JVC camcorder remote control
- Up to 1920x1080 30p/25p or 1280x720 60p/50p streaming @ 10Mbps max
- RTMP & MPEG-TS simultaneous output
- Internal character generator with templates
- 4 layers of DSK – CG/images/animations with transparency

- Replay and Slow Motion
- Return over IP
- SRT Compatible
- Multi-Camera Synchronization

Equipped with multi-camera synchronization, Network Time Protocol synchronized encoders.



- Zero Config Capability
- Provides automatic detection of JVC camcorders within the same LAN group, and simple setting up of connections with the KM-IP6000/KM-IP4100.

IP REMOTE CONTROL PANEL

RM-LP250S (Joystick version) / RM-LP250M (Encoder version)



RM-LP250S/LP250M is an IP based remote control panel for CONNECTED CAM models (GY-HC500 Series and GY-HC900 Series). It enables versatile control of iris functions and other camera settings with ethernet connection (RJ-45).

RM-LP250S: Can control a single camera
RM-LP250M: Can control up to 3 cameras

Basic System Configurations



Controlling 3 cameras with a controller and a mixer.

| Item | Model | Description | Qty |
|------|---------------------|---------------------------------|-----|
| 1 | RM-LP250M (Encoder) | IP Remote Control Panel | 1 |
| 2 | GY-HC500 | 4K Memory Card Camera Recorder | 3 |
| 3 | KM-IP4100 | LIVE STREAMING PRODUCTION SUITE | 1 |
| 4 | Monitor | (for use with KM-IP4100) | 1 |

| Item | Model | Description | Qty |
|------|---------------------|--|-----|
| 5 | Monitor | | 1 |
| 6 | Microphone | | 1 |
| 7 | Control | LAN Cable | 6 |
| 8 | | HUB (PoE+ for RM-LP250M) | 1 |
| 9 | Internet Connection | Broadband Router (to connect the Internet) | |

GY-HC550 / GY-HC500 Comparison

| | | GY-HC550 | GY-HC500 |
|-------------------|----------------------|--------------|--------------------------|
| Codec | MPEG-2/MXF | Yes | No |
| Hardware | GPS | Yes | No |
| | Wireless LAN 2.4G/5G | Built-in | With optional USB dongle |
| IP | Zixi protocol | Zixi or SRT* | No |
| | SRT protocol | | Yes |
| Broadcast Overlay | | Yes | No |

* Select either one at initial firmware installation.



Accessories

| | | |
|--|--|---|
| <p>BN-VC2128 Battery Battery capacity: 12800mAh, 92Wh Voltage: 7.2V</p> | <p>BN-VC296 Battery Battery capacity: 9600mAh, 69Wh Voltage: 7.2V</p> | <p>AA-VC20 Battery Charger</p> |
| <p>KA-EN200G H.265/HEVC Streaming Adapter</p> | <p>KA-MC100G SSD Media Adapter SSD media is not included.</p> | <p>KM-IP6000 KM-IP4100 KM-IP4000S* *for Americas market Live Streaming Production Suite Monitor is not included.</p> |
| <p>RM-LP250S IP Remote Control Panel Joystick version, Control x1 camera recorder</p> | <p>RM-LP250M IP Remote Control Panel Encoder version, Control x3 camera recorders</p> | <p>RM-LP100 Remote Camera Controller</p> |
| <p>BR-DE900 ProHD Decoder</p> | <p>zRAMP-4 (Zixi zRAMP 4-in/4-out) zRAMP-2 (Zixi zRAMP 2-in/2-out) Streaming Management Server</p> | <p>QAN0067-003 Microphone for ProHD/4K Camcorder</p> |