



## IT/IP Centric Live Video Processing Platform

### AT-KC200

IT/IP Platform "KAIROS" achieves higher performance by fully utilizing the power and flexibility of its CPU and GPU, balancing total processing load without the configuration constraints of traditional hardware based systems. KAIROS offers unrestricted flexibility of input, output and operation for efficient production of expressive live videos

#### Key Features

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A variety of inputs and outputs available for use

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Resolution and format independent

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Layered structure for versatile video expression

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Flexibility and scalability

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ST 2022-7 Network Redundancy

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## AT-KC200

<https://latam.connect.panasonic.com/pa/en/products/broadcast-proav/kc200>

<b>Power Requirement</b>	AC100-127V/200-240V, 50/60Hz, 10A/5A, Redundant
<b>Operating Temperature</b>	5 to 35 degree Celsius
<b>Operating Humidity</b>	10% to 90% (no condensation)
<b>Weight</b>	Approx. 17 kg without accessories & options
<b>Dimensions (W x H x D)</b>	430 mm x 176 mm x 505 mm (4RU)
<b>Video/Audio/Synchronous</b>	
<b>Support Video Format</b>	
<b>4K</b>	2160/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
<b>FHD</b>	1080/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
<b>HD</b>	1080/59.94i, 50i, 720/60p, 59.94p, 50p
<b>Signal Processing</b>	Y/Pb/Pr: 4:2:2 10 bit
<b>Audio Format</b>	
<b>ST 2110-30 (AES67)</b>	48 KHz/24 bit
<b>Synchronous</b>	
<b>PTP Sync</b>	Support for QSFP and GbE port
<b>FS (Frame Synchronize)</b>	For each CH, always ON (can't turn off)
<b>Frame Delay</b>	0 frame to 12 frame, 1 frame step
<b>I/O Specification</b>	
<b>IP</b>	
<b>QSFP</b>	QSFP28 x 2, 100GbE (ST 2110, PTP sync)
<b>LAN</b>	RJ-45 x 2, 1GbE (Control system, PTP sync, NDI®*1, RTP/SRT/RTMP/RTSP)
<b>Baseband</b>	
<b>DisplayPort</b>	DisplayPort 1.4 x 4, for Multiview output
<b>HDMI</b>	Use of recommended products / Yes, Please refer to "Third party product" page <a href="https://pro-av.panasonic.net/en/support/kairos_partners.html">https://pro-av.panasonic.net/en/support/kairos_partners.html</a>
<b>Agile Input Routing Support</b>	
<b>ST 2110</b>	✓ 1.5G (1080i, 720p): 64 in / 40 out*2  3G (1080p): 32 in / 40 out *2  4K: 8 in / 10 out *2
<b>ST 2022-7 Redundancy</b>	✓ No halving of input*2 halving of output
<b>Function</b>	
<b>Key</b>	No restriction, depend on GPU performance
<b>Control Panel</b>	AT-KC10C1/KC10C2, up to 8 units each, up to 16 units in total can be connected
<b>Still Store</b>	7 GB storage, up to 4K resolution
<b>RAM Player</b>	8 CH, 32 GB, Uncompressed, HD/4K  * Max. RAM capacity is reduced with SDI I/O boards installed. For details, please check SDI I/O board web page.
<b>Clip Player</b>	2 CH, 400 GB (Share capacity with audio player), compressed, AVC-Intra/H.264/DNxHD/ProRes
<b>Audio Player</b>	4CH, 400 GB (Share capacity with clip player), compressed, WAV/MP3/Ogg/FLAC/AIFF
<b>Multiviewer</b>	
<b>Output Format</b>	HD/4K
<b>Display</b>	4 ch, Max. 36 PiP
<b>Cropping</b>	Yes
<b>User Management</b>	
<b>Tally</b>	
<b>Option</b>	4K (equipped as standard) I/O (equipped as standard) CANVAS (equipped as standard) RossTalk (option), RossTalk, Ross and XPrEsson, are trademarks or registered trademarks of Ross Video Limited. NMOS (option), NMOS (Networked Media Open Specifications) is a protocol standardized by AMWA (Advanced Media Workflow Association) for controlling and managing devices via IP networks. Audio Mixer (option) Touch Control Panel Software (option)* Supported by KAIROS software version 1.5 or later.
<b>Accessories</b>	
<b>AC Cable</b>	2

**Note**

\*1:NDI® is a new protocol developed by NewTek, Inc. that supports IP video production workflow. NDI® is a registered trademark of Vizrt NDI AB in the United States and other countries. In this instance, NDI® is used to indicate low latency with NDI® High Bandwidth.

\*2:KAIROS software version 1.6 or later.

\*3:The optional AT-KC20M1 SDI I/O boards are required. The numbers of input/output shown here are the maximum numbers that can be loaded.

Micro BNC x Max. 48 \*2\*3

1.5G (1080i, 720p): Max. 32 in / 16 out \*2\*3

3G (1080p): Max. 32 in / 16 out \*2\*3

4K: Max. 16 in / 8 out \*2\*3

8 in / 2 out (only input for RTSP)

No restriction, depend on GPU performance

ST 2110-10, ST 2110-20, ST 2110-30

8 CH IN, RTP/SRT/RTMP/RTSP switchable, H.264 HD, Audio: 16 CH each for SRT, 8 CH each for RTMP/RTSP

\* 720p video signal from Panasonic PTZ cameras is not supported. For RTSP, only input is supported. Note that RTSP input does not work with the AW-HE130W/K (Discontinued model) and AW-HR140 (Limited stock) PTZ cameras.

2 CH OUT, RTP/SRT/RTMP switchable, H.264 HD, Audio: 16 CH each for SRT, 8 CH each for RTMP/RTSP

Yes

Yes

Up to 8K (32M pixels) resolution

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes (with AT-SF005 Audio Mixer option)

Yes\*2

Yes

Yes, TSL5.0 (incl. AK-UC4000), Panasonic AW-PTZ

Yes, Please refer to "Third party product" page

[https://pro-av.panasonic.net/en/support/kairos\\_partners.html#thirdparty](https://pro-av.panasonic.net/en/support/kairos_partners.html#thirdparty)

1 set with screws

Yes, Protocol, The command table is available from the PASS KAIROS Website.

Yes, (With AT-SFE01 RossTalk option)

Yes, Please refer to "Third party product" page

Yes, IS-04, IS-05, (With AT-SFE03 NMOS option)

Yes, Please refer to "Third party product" page

ST 2110-10, ST 2110-20, ST 2110-30

Yes, T2 server easy control (AMP)

Yes, Hyper Deck Studio easy control

Yes, supports AUX bus control and macro control

Yes \*

\*KAIROS software version 1.7 or later.

2 CH IN and 2 CH OUT, Audio: 16 CH each, NDI®\*1 High Bandwidth, up to FHD resolution

\* 2CH IN and 2CH OUT are available separately from RTP/SRT/RTMP/RTSP streaming.

Yes

2 in / 2 out, 16 CH audio for each