# Panasonic CONNECT



### 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**

- A variety of inputs and outputs available for use
- Resolution and format independent
- Layered structure for versatile video expression
- Flexibility and scalability
- ST 2022-7 Network Redundancy

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General -> Power Requirement



AC IN x2, 100-127 V/200-240 V, 50/60 Hz

## AT-KC200

<u>https://latam.connect.panasonic.com</u> /bo/es/productos/broadcast-yproav/kc200

General -> Power Requirement	AC IN X2, 100-127 V/200-240 V, 50/60 Hz
General -> Current Consumption	10.0 A / 5.0 A
General -> Operating Temperature	5 to 35 °C
General -> Storage Temperature	-20 to 60 °C
General -> Operating Humidity	10% to 90%, no condensation
General -> Weight	Approx. 17 kg / 37.47 lb (without accessories & options)
General -> Rack Mount Size	4 RU
General -> Dimensions	W 430 mm x H 176 mm x D 505 mm (16-15/16 x 6-15/16 x 19-7/8 inches)(excluding
General -> Dimensions	protrusion)
General -> OS	Linux
General -> Redundant Power Supply	/
Number of Video I/O -> Agile Input	1
Routing	
Number of Video I/O -> Smart Routing	a <b>∕</b> *1
Number of Video I/O -> ST 2110 ->	64 in / 40 out <sup>*2</sup>
.5G	
Number of Video I/O -> ST 2110 -> 3G	32 in / 40 out *2
Number of Video I/O -> ST 2110 -> 4K	
Number of Video I/O -> ST 2022-7 Redundancy	$\checkmark$ No halving of input, halving of output $^{\star2}$
Number of Video I/O -> SDI -> 1.5G	Max. 32 in / 16 out <sup>*2 *3</sup>
Number of Video I/O -> SDI -> 3G	Max. 32 in / 16 out <sup>*2 *3</sup>
Number of Video I/O -> SDI -> 4K	Max. 16 in / 8 out *2 *3
Number of Video I/O -> NDI <sup>®</sup> High	2 in / 2 out, 16 CH audio for each
Bandwidth (HD only)	
Number of Video I/O ->	8 in / 2 out (only input for RTSP)
SRT/RTSP/RTP/RTMP (HD only)	0 m/2 out (only input for Kisc)
	100C OCED28 v 2
/O Terminals -> QSFP (ST 2110, PTP sync)	100G QSFP28 x 2
/O Terminals -> DisplayPort (for	DisplayPort 1.4 x 4
Multiview Output)	
/O Terminals -> LAN	RJ-45 x 2, 1 GbE
/O Terminals -> SDI IN/OUT	Micro BNC x Max. 48 *3
/O Terminals -> REF IN/OUT	Micro BNC x Max. 8 *3
/O Terminals -> HDMI IN/OUT	Use external converters. Please refer to "KAIROS Alliance Partners/ Tested Third Party
	Products".
/O Terminals -> VGA (for system	Dsub-15 pin
nstallation)	
/O Terminals -> USB (for system	USB3.2 Gen1 Type-Ax4
nstallation)	
/ideo Format -> 4K	2160/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
/ideo Format -> FHD	1080/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
/ideo Format -> HD	1080/59.94i, 50i, 720/60p, 59.94p, 50p
/ideo Format -> Signal Processing	Y/PB/PR, 4:2:2 10 bit
/ideo Format -> ST 2110-20	1
Audio Format -> ST 2110-30 (AES67)	48 kHz/24 bit
Synchronization -> PTP Sync	QSFP and GbE, both ports supported
Synchronization -> FS (Frame	All input channels, always ON (without ON/OFF)
Synchronizer)	O former to 10 former had former atom
Synchronization -> Frame Delay	0 frame to 12 frame, by 1-frame step
Synchronization -> Latency	Min. 1-frame
Multiviewer/Canvas -> Multiviewer	HD/4K x 4 out, max. 36 PiP for each
Dutput Format, Display	
Multiviewer/Canvas -> Canvas	Up to 8K (32 M-pixels)
ayer -> Number of Layer, Scene	No restriction, depend on GPU performance, Visible usage with GPU meter
ME) and Key	-
Player -> Still Store	7 GB storage, up to 4K
Player -> RAM Player	8 CH, 32 GB storage *4
uncompressed)	······································
•	2 CH, 400 GB storage (share with audio player), AVC-Intra/H.264/DNxHD/ProRes
Player -> Clin Player (compressed)	
Player -> Audio Player (compressed)	
Player -> Clip Player (compressed) Player -> Audio Player (compressed) Fally, External Device Support -> 6- color Independent Tally Indicators	
Player -> Audio Player (compressed) Tally, External Device Support -> 6- color Independent Tally Indicators Fally, External Device Support -> NDI <sup>C</sup>	·
Player -> Audio Player (compressed) Tally, External Device Support -> 6- color Independent Tally Indicators	·

Tally, External Device Support -> Compatible External Tally Box	<i>*</i>
Tally, External Device Support -> Connectable Control Panel	Total 16 units (AT-KC10C1G or AT-KC10C2G, each up to 8 units)
Tally, External Device Support -> PTZ Control of Panasonic PTZ Camera	·
Supported Standards and Protocols - REST API	Y Protocol, The command table is available from the PASS KAIROS Website.
Supported Standards and Protocols - Ross Talk <sup>*5</sup>	> ✓ Optional AT-SFE01 is required.
Supported Standards and Protocols - TSL 5.0	> ✓
Supported Standards and Protocols - NMOS <sup>*6</sup>	✓ Optional AT-SFE03 is required.
Supported Standards and Protocols - AMP (Advanced Media Protocol)	> ✓
Supported Standards and Protocols - ST 2110	> ST 2110-10, ST 2110-20, ST 2110-30
Common Features of All Models -> Effect	Luminance Key, Chroma Key, DVE (2D/2.5D), Soft Border, Corner Fix, Color Correction, Cro
Common Features of All Models -> Transition	Multimix, Offset Transition, Transition Effects
Common Features of All Models -> Macro	Scene-Specific Macros, LUA Script Support
Common Features of All Models -> Color Mat	Bicolor Wash Mat, Test Pattern
Common Features of All Models -> Other Functions	Audio Mixer <sup>*7</sup> , Title Generator, Snapshot, Multiviewer Display (GPU Meter, Audio Level Meter, Clock, etc.), User Management Function <sup>*2</sup>
Footnote Description	<ul> <li>NDI® is a registered trademark of Vizrt NDI AB in the United States and other countries.</li> <li>1. Requires software version 1.7 or later.</li> <li>2. Requires software version 1.6 or later.</li> <li>3. The optional AT-KC20M1 SDI I/O boards are required. Each board has 8 input terminals, 4 output terminals and REF IN/OUT (max. 8 inputs/4 outputs in FHD/HD). Up to four boards can be installed on the AT-KC2000/200 and up to tw boards on the AT-KC2000S1. The numbers of input/output shown here are the</li> </ul>

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devices via IP networks. 7. Optional AT-SF005 is required.

maximum numbers that can be loaded. Installation of the optional board is carried

4. Please note that the max capacity of the RAM player reduces as below when SDI I/O boards are installed. SDI I/O boards Not installed 1 board 2 boards 3 boards 4 boards AT-KC2000 96GB 93GB 90GB 87GB 84GB AT-KC2000S1 86GB 83GB 80GB — AT-KC200 32GB 31GB 30GB 29GB 28GB AT-KC200L1 — — 32GB 32GB 5. RossTalk, Ross and XPression, are trademarks or registered trademarks of Ross

 NMOS (Networked Media Open Specifications) is a protocol standardized by AMWA (Advanced Media Workflow Association) for controlling and managing

out by the dealer. Always consult your dealer for installation.