# **Panasonic**

# IT/IP Platform "KAIROS"

Broadcast and Professional AV

# **K**AIROS

Achieving Innovation in Live Video, **Video Production Platform KAIROS Mainframes Kairos Core 200/2000** 

### Four Models Lineup to Suit the Operating Environment

Middle-range class: Kairos Core 200 (AT-KC200, AT-KC200L1); High-end class: Kairos Core 2000 (AT-KC2000, AT-KC2000S1); users can select a model suitable for their operating environment according to the number of IP/SDI inputs and outputs and storage capacity.

#### Flexible and Diverse Video Production

GPU-based video processing enables multi-layer configurations not limited by the number of MEs or keys, a canvas function that enables use of irregular aspects such as 32:9 and portrait, and support for various resolutions such as 16:10,\* DCI\* and 5:4.\* With such capabilities and more, KAIROS ensures highly flexible and diverse video production.

\* Requires Kairos Software Version 1.8. Supported only with IP input/output.

# Supports Diverse I/O Signals and Multiple Channels

Kairos Core 200/2000 supports a variety of input and output signals, including SDI, ST 2110, NDI® High Bandwidth, and SRT. Its also support ST 2022-7 redundancy, which duplicates the network for operational reliability. Redundancy without halving the number of inputs; the AT-KC2000S1 also does not halve both of inputs and outputs. Furthermore, Smart Routing Inputs\*allow the input sources of network switches to be deployed and operated as virtual inputs on KAIROS, enabling operation beyond the maximum number of inputs.

es Kairos Software Version 1.7.1. Please contact your distributor for details on using ST 2110 in/out on the AT-KC200L1



Kairos Core 2000 (Main Frame)

AT-KC200 AT-KC200L1

Kairos Core 200 (Main Frame)



# Next Gen KAIROS for Extra-innovative Live-video Production

New Midrange KAIROS with Increased **Functionality and Performance** 

AT-KC200/KC200L1 Kairos Core 200

(Main Frame)



High-end KAIROS for Next-gen Live-video **Production Featuring Unmatched Performance Like Never Before** 

AT-KC2000/KC2000S1

Kairos Core 2000 (Main Frame)



#### **Diverse and Flexible Inputs/Outputs**

All 4 models: Agile I/O Routing for flexible allocation of IP input and output according to bandwidth, and Smart Routing\*1, which allows virtual handling of video sources input to network switches, up to 64 inputs regardless of video format. Its also support various resolutions such as 16:10, DCI, and 5:4.\*2

AT-KC2000S1: The number of IP inputs is double that of the AT-KC200/KC2000. During redundancy operation, the number of inputs/outputs is not halved.

AT-KC200L1: SDI inputs/outputs and NDI® and SRT as standard.\*3

Major Specifications - Please check the web for details.

#### Improved Reliability and Operability

**New Chassis:** Low-speed fans combine guiet operation with high throughput.

ST2022-7 Network Redundancy: Improves reliability in the event of network failure and allows redundancy without halving the number of inputs. Furthermore, the AT-KC2000S1 has no halving of both the number of inputs and outputs.

Multiple Core Control\*2: Starting with KAIROS software Ver. 1.8, up to two Kairos Core units can be operated from one control panel and one GUI software. Improves convenience when operating multiple Kairos Core units simultaneously.

Model Number		AT-KC200L1	AT-KC200	AT-KC2000	AT-KC2000S1
Power Requirement		AC100-127V/200-240V, 50/60Hz, 10A/5A, Redundant			
Weight (without accessories & options)		Approx. 17.8 kg / 39.24 lb	Approx. 17 kg / 37.47 lb		
Dimensions (W x H x D)		430 mm x 176 mm x 505 mm / 16-15/16" x 6-15/16" x 19-7/8" (4 RU)			
Agile Input Routing		Yes *3	Yes		
Smart Routing Input		Yes *3	Yes*1		
ST 2110 I/O *4	HD 1.5G	64 in x 40 out *3	64 in x 40 out		
	HD 3G	32 in x 40 out *3	32 in x 40 out 6		64 in x 40 out
	4K 12G	8 in x 10 out *3	8 in x	10 out	16 in x 10 out
ST 2022-7 Redundancy		Yes, Inputs not halved Outputs halved *3	Yes, Inputs not halved Outputs halved		Yes, Inputs/outputs not halved
NDI®*5 (HD only)		2 in/2 out, Audio 16 ch	2 in/2 out, Audio 16 ch		
SDI		24 in x 12 out of HD/FHD 12 in x 6 out of 4K *6	Supported with optional AT-KC20M1 SDI I/O Board		
RTP/SRT/RTMP/RTSP		8 in/2 out (only input for RTSP)		16 in/4 out (only input for RTSP)	
RossTalk/NMOS		Yes *3 *7	Yes *7		
TSL5.0/AMP/SNMP *8		Yes			
RAM Player (uncompressed)		8 ch, 32 GB *9	8 ch, 32 GB *9	8 ch, 96 GB *9	8 ch, 86 GB *9
Clip Player (compressed)		2 ch, 400 GB		2 ch, 850 GB	
Still Store		up to 4K, 7 GB		up to 4K, 32 GB	
Audio Player (compressed)		4 ch, 400 GB *10		4 ch, 850 GB *10	
Multiviewer		4 ch, Max. 36 PiP			
CANVAS Function		up to 8K, 32 Megapixels		up to 12K, 66 Megapixels	
PTP Sync Support		Yes (QSFP and GbE, both ports supported)			

- \*1: Requires software Version 1.7.1 or later.
- \*2: Requires software Version 1.8. For details, please check our website.
- \*3: Please contact your distributor for details on using ST 2110 inputs and outputs on the AT-KC200L1.
- \*4: Please make sure to check the specification on web for port restrictions when in use.
- \*5: NDI® here means NDI® High bandwidth.
- \*6: Three boards are pre-installed and one additional board can be installed.
- \*7: RossTalk and NMOS each require an optional software key.
- \*8: Requires software Version 1.7.0 or later.
- \*9: Max. RAM capacity is reduced with SDI I/O boards installed. The maximum capacity is reduced by 2 GB when updating to Version 1.8. For details, please check SDI I/O board web page.
- \*10: Share capacity with clip player.
- NDI® is a registered trademark of Vizrt NDI AB in the United States and other countries.

#### **KAIROS Software Extends to Offline**



AT-SFC10 Kairos Creator (GUI Software/Software Kev) Intuitive GUI for easy configuration of inputs/outputs, scenes, layers, etc.

OS: Windows 10/11, macOS Ventura/Sonoma/Sequoia



#### **Kairos Emulator**

Free software that allows production and training with Kairos Creator in offline environments such as outside the studio or at home.

- OS: Windows10/11
- \* Requires version 1.7.0 or later.
- \* Some functions can't use on Kairos Emulator.

#### Kairos Control (Control Panel), KAIROS Option

#### Kairos Control (Control Panel)

AT-KC10C1 Kairos Control (Control Panel) 24XPT style, standard type control panel

AT-KC10C2 Kairos Control (Control Panel) 12XPT style, compact type control panel

AT-SFTC10 Touch Control Panel Software Intuitive operation by touching the multi-viewer screen.

- OS: Windows10/11
- \* Requires version 1.5 or later.

#### **Optional Hardware**

#### AT-KC20M1 SDI I/O Board

Enables SDI (micro BNC) input/output. Each board has 8 inputs, 4 outputs, and REF input/ output. 1 to 4 boards can be installed on a single Kairos Core.

- \* Installation on the main frame is carried out by the dealer. Always consult your dealer for installation.
- \* When installed, max. capacity of the RAM player is reduced. For details, please check our website.

#### **Optional Software**

#### AT-SFCM10 Kairos Core Manager Enables backup, media synchronization, and data transfer operations using multiple Kairos Core units.

- OS: Windows 10/11.
- \* Kairos Core Manager is free for use with up to two Kairos Core units; a licence must be purchased for use with three or more units. Please consult your dealer.

#### SKAARHOJ's Panasonic Special model

PAN-MKO-V2B-BU Master Key One \*1 PAN-MK48-V1B-BU Master Key 48 \*1 PAN-WB-V2B-BU Wave Board \*2 PAN-QSP-V1B-BU Ouick Shot Pro \*2 PAN-QS-V1B-BU Ouick Shot \*2

- \*1: Requires version 1.7 or later. Operation-verified in Oct. 2024
- \*2: Requires version 1.8. Operation-verified in Jan. 2025
- SKAARHOJ's Panasonic Special Models are not products handled by Panasonic Connect Co. Panasonic Connect does not guarantee the specifications, etc. Please contact SKAARHOJ <a href="https://www.skaarhoj.com/">https://www.skaarhoj.com/</a> or SKAARHOJ's resellers <a href="https://www.skaarhoj.com/discover/reseller-list">https://www.skaarhoj.com/discover/reseller-list</a> for more information about the product. Please contact your area's Panasonic Sales Companies for purchase.

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Specifications are subject to change without notice.



For more information please visit Panasonic web site https://pro-av.panasonic.net/en/

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