



## Plataforma de procesamiento de vídeo en directo basada en IT/IP

### AT-KC2000/2000S1

La plataforma IT/IP "KAIROS" consigue un mayor rendimiento utilizando al máximo la potencia y flexibilidad de la CPU y GPU, equilibrando la carga total de procesamiento sin las limitaciones de configuración de los sistemas tradicionales basados en hardware. KAIROS ofrece una flexibilidad sin límites de entrada, salida así como un perfecto rendimiento para la producción de vídeos expresivos en directo.

#### Key Features

Dispone de una gran variedad de entradas y salidas

Resolución y formato independientes

Estructura de capas para una mayor expresividad del vídeo

Flexibilidad y escalabilidad

ST 2022-7 Redundancia de red



## AT-KC2000/2000S1

<https://latam.connect.panasonic.com/co/es/products/broadcast-proav/kc20002000s1>

<b>General</b>	
<b>Peso</b>	Approx. 17 kg without accessories & options
<b>Dimensiones (AnxAlxP)</b>	430 mm x 176 mm x 505 mm (4RU)
<b>Temperatura de funcionamiento</b>	5 to 35 degree Celsius
<b>Operating Humidity</b>	10% to 90% (no condensation)
<b>Power Requirement</b>	AC100-127V/200-240V, 50/60Hz, 10A/5A, Redundant
<b>Signal Processing</b>	Y/Pb/Pr: 4:2:2 10 bit
<b>HD</b>	1080/59.94i, 50i, 720/60p, 59.94p, 50p
<b>4K</b>	2160/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
<b>Video/Audio/Synchronous</b>	
<b>Support Video Format</b>	
<b>FHD</b>	1080/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
<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>LAN</b>	RJ-45 x 2, 1GbE (Control system, PTP sync, NDI®*1, RTP/SRT/RTMP/RTSP)
<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>I/O Specification</b>	
<b>IP</b>	
<b>QSFP</b>	QSFP28 x 2, 100GbE (ST 2110, PTP sync)
<b>Baseband</b>	
<b>DisplayPort</b>	DisplayPort 1.4 x 4, for Multiview output Micro BNC x Max. 48 *2*3
<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 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 16 in / 4 out (only input for RTSP)
<b>Function</b>	
<b>Control Panel</b>	AT-KC10C1/KC10C2, up to 8 units each, up to 16 units in total can be connected
<b>Key</b>	No restriction, depend on GPU performance
<b>RAM Player</b>	8 CH, 96 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, 850 GB (Share capacity with audio player), compressed, AVC-Intra/H.264/DNxHD/ProRes
<b>Still Store</b>	32 GB storage, up to 4K resolution No restriction, depend on GPU performance
<b>Audio Player</b>	4CH, 850 GB (Share capacity with clip player), compressed, WAV/MP3/Ogg/FLAC/AIFF 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
<b>Output Format</b>	HD/4K
<b>Display</b>	4 ch, Max. 36 PiP
<b>Multiviewer</b>	
	Up to 12K (66M pixels) resolution
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
<b>Cropping</b>	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
	Yes
<b>Tally</b>	
<b>User Management</b>	
	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
	<a href="https://pro-av.panasonic.net/en/support/kairos_partners.html#thirdparty">https://pro-av.panasonic.net/en/support/kairos_partners.html#thirdparty</a>
<b>Option</b>	4K (equipped as standard)
	I/O (equipped as standard)
	CANVAS (equipped as standard)
	RossTalk (option), RossTalk, Ross and XPression, 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
	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
<b>Note</b>	*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.
	Yes, supports AUX bus control and macro control
	Yes *
	*KAIROS software version 1.7 or later.
	2 in / 2 out, 16 CH audio for each
	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

