



IT/IP Centric Live Video Processing Platform

AT-KC200L1

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









AT-KC200L1

https://latam.connect.panasonic.com/br/en/products/broadcast-proav/kc200l1

General -> Dower Peguirement	AC IN v2 100-127 V/200-240 V 50/60 Hz
General -> Power Requirement General -> Current Consumption	AC IN x2, 100-127 V/200-240 V, 50/60 Hz 10.0 A / 5.0 A
General -> Operating Temperature	5 to 35 °C
General -> Storage Temperature	-20 to 60 ℃
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
deneral -> Dimensions	protrusion)
General -> OS	Linux
General -> Redundant Power Supply	✓
Number of Video I/O -> Agile Input	·
Routing	
Number of Video I/O -> Smart Routing *1	✓ *1
Number of Video I/O -> ST 2110 -> 1.5G	64 in / 40 out *2
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	√ No halving of input, halving of output *2
Number of Video I/O -> SDI -> 1.5G	Max. 32 in / 16 out *2 *3
Number of Video I/O -> SDI -> 3G	Max. 32 in / 16 out *2 *3
Number of Video I/O -> SDI -> 4K	Max. 16 in / 8 out *2 *3
Number of Video I/O -> NDI® 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)	
I/O Terminals -> QSFP (ST 2110, PTP	100G QSFP28 x 2
sync)	
I/O Terminals -> DisplayPort (for	DisplayPort 1.4 x 4
Multiview Output)	
I/O Terminals -> LAN	RJ-45 x 2, 1 GbE
I/O Terminals -> SDI IN/OUT	Micro BNC x Max. 48 *3
I/O Terminals -> REF IN/OUT	Micro BNC x Max. 8 *3
I/O Terminals -> HDMI IN/OUT	Use external converters. Please refer to "KAIROS Alliance Partners/ Tested Third Party Products".
I/O Terminals -> VGA (for system installation)	Dsub-15 pin
I/O Terminals -> USB (for system installation)	USB3.2 Gen1 Type-Ax4
Video Format -> Input/output -> 4K	2160/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
Video Format -> Input/output -> FHD	1080/60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
Video Format -> Input/output -> HD	1080/59.94i, 50i, 720/60p, 59.94p, 50p
Video Format -> Color Model and Bit Depth ^{*13}	Y/PB/PR, 4:2:2 10 bit
Audio Format -> ST 2110-30 (AES67)	48 kHz/24 bit
Synchronization -> PTP Sync	QSFP and GbE, both ports supported
Synchronization -> FS (Frame Synchronizer)	All input channels, always ON (without ON/OFF)
Synchronization -> Frame Delay	0 frame to 12 frame, by 1-frame step
	Min. 1-frame
·	
Multiviewer/Canvas -> Multiviewer Output Format, Display	HD/4K x 4 out, max. 36 PiP for each
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas	Up to 8K (32 M-pixels)
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene	
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene (ME) and Key	Up to 8K (32 M-pixels) No restriction, depend on GPU performance, Visible usage with GPU meter 7 GB storage, up to 4K
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene (ME) and Key Player -> Still Store Player -> RAM Player	Up to 8K (32 M-pixels) No restriction, depend on GPU performance, Visible usage with GPU meter
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene (ME) and Key Player -> Still Store Player -> RAM Player (uncompressed) *14	Up to 8K (32 M-pixels) No restriction, depend on GPU performance, Visible usage with GPU meter 7 GB storage, up to 4K
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene (ME) and Key Player -> Still Store Player -> RAM Player (uncompressed) *14 Player -> Clip Player (compressed)	Up to 8K (32 M-pixels) No restriction, depend on GPU performance, Visible usage with GPU meter 7 GB storage, up to 4K 8 CH, 32 GB storage *4
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene (ME) and Key Player -> Still Store Player -> RAM Player (uncompressed) *14 Player -> Clip Player (compressed) Player -> Audio Player (compressed)	Up to 8K (32 M-pixels) No restriction, depend on GPU performance, Visible usage with GPU meter 7 GB storage, up to 4K 8 CH, 32 GB storage *4 2 CH, 400 GB storage (share with audio player), AVC-Intra/H.264/DNxHD/ProRes
Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene (ME) and Key Player -> Still Store Player -> RAM Player (uncompressed) *14 Player -> Clip Player (compressed) Player -> Audio Player (compressed) Tally, External Device Support -> 6-	Up to 8K (32 M-pixels) No restriction, depend on GPU performance, Visible usage with GPU meter 7 GB storage, up to 4K 8 CH, 32 GB storage *4 2 CH, 400 GB storage (share with audio player), AVC-Intra/H.264/DNxHD/ProRes 4 CH, 400 GB storage (share with clip player), WAV/MP3/Ogg/FLAC/AIFF
Synchronization -> Latency Multiviewer/Canvas -> Multiviewer Output Format, Display Multiviewer/Canvas -> Canvas Layer -> Number of Layer, Scene (ME) and Key Player -> Still Store Player -> RAM Player (uncompressed) *14 Player -> Clip Player (compressed) Player -> Audio Player (compressed) Tally, External Device Support -> 6-color Independent Tally Indicators Tally, External Device Support -> NDI® Tally, External Device Support -> NDI®	Up to 8K (32 M-pixels) No restriction, depend on GPU performance, Visible usage with GPU meter 7 GB storage, up to 4K 8 CH, 32 GB storage *4 2 CH, 400 GB storage (share with audio player), AVC-Intra/H.264/DNxHD/ProRes 4 CH, 400 GB storage (share with clip player), WAV/MP3/Ogg/FLAC/AIFF

Companie External rany box	
Tally, External Device Support ->	Total 16 units (AT-KC10C1G or AT-KC10C2G, each up to 8 units)
Connectable Control Panel Tally, External Device Support -> PTZ	·
Control of Panasonic PTZ Camera	
Supported Standards and Protocols -> REST API	> Protocol, The command table is available from the PASS KAIROS Website.
Supported Standards and Protocols -> Ross Talk ^{*15}	> ✓ Optional AT-SFE01 is required.
Supported Standards and Protocols -> TSL 5.0	> /
Supported Standards and Protocols -> NMOS ^{*16}	> 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, Crop
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 $^{\star 7}$, Title Generator, Snapshot, Multiviewer Display (GPU Meter, Audio Level Meter, Clock, etc.), User Management Function $^{\star 2}$
Number of Video I/O -> HDMI -> 1.5G *6 Number of Video I/O -> HDMI -> 3G * Number of Video I/O -> HDMI -> 3K *	⁶ Max.8 in*7 or Max. 8 out*8
Number of Audio I/O -> ST 2110 *9	64 in / 40 out*3
Video Format -> output -> SD NTSC ^{*1} ' *11	⁰ 480 / 59.94i
Video Format -> output -> SD PAL * ¹⁰ *11	576 / 50i
	1080 / 60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
Video Format -> output -> DCI 4K * ¹⁰ *11	2160 / 60p, 59.94p, 50p, 30p, 29.97p, 25p, 24p, 23.98p
Video Format -> output -> 16:9 *10 *11	
Video Format -> output -> 4:3 *10 *11	$640\times480,1024\times768,1400\times1050,1600\times1200/60p,59.94p,50p,30p,29.97p,25p,24p,23.98p$
Video Format -> output -> 16:10 *10 *11	1280 x 800, 1440 x 900, 1680 x 1050, 1920 x 1200, 3840 x 2400 / 60p, 59.94p, 50p, 30p 29.97p, 25p, 24p, 23.98p
Video Format -> output -> 5:4 *10 *11	
Supported Standards and Protocols -> SNMP	> / *1 /
Supported Standards and Protocols -> HTML5 Graphics	> / *18
Wales Francis & State & Baselistics	In addition to the above formats, supports any resolution up to a maximum of 9.8

Tally, External Device Support -> Compatible External Tally Box