

Kahuna 9600 and 6400 Production Switchers



**Snell
Advanced
Media**

Data Sheet

Kahuna 9600 Production Switcher

The most powerful switcher in the new Kahuna range, the Kahuna 9600 is an enterprise class switcher offering an unmatched feature set to meet the needs of the highest calibre of productions.



Suited for larger scale 4K and 1080p environments, Kahuna 9600 supports the most complex productions including multiple studio operations. Along with the advanced 3D DVE the Kahuna 9600 features new 2.5D resize engines, giving more power at the M/E level. The Kahuna 9600 provides up to 24 M/Es, 48 keyers and 72 key layers which can be shared across multiple studios.

Main features

Powered by SAM innovation, Kahuna 9600 has a feature set that has never been possible until now and offers a completely scalable path to all functionality and format requirements.

For sporting events, light entertainment shows, news production and presentations, either in the studio control room, mobile vehicle or flyaways, the Kahuna 9600 possesses the flexibility, adaptability and creativity to differentiate your program output.

- Up to 6 full M/Es
- Make M/E™ for creating up to 24 M/Es for main or aux outputs
- Every M/E has 8 keyers per M/E regardless of format
 - 4 superkeyers with linear, luminance, chroma key
 - 8 Resize engines with 2.5D DVE manipulation
 - 4 eKeys with linear, luminance and chroma key
- Up to 120 inputs (12 inputs as standard, upgrade in groups of 12)
- Up to 64 fully assignable outputs (8 outputs as standard, upgrade in groups of 8)
- Internal multiviewer
- FormatFusion3™ available on all inputs and outputs
- 3D DVE suite of effects with flexible combiners

- Large internal clipstore with 20 outputs supporting 8 minutes of uncompressed HD video
- RGB color correction available on all inputs and outputs
- Programmable outputs
- Large external integration capacity with 3rd party equipment such as servers, routers, multi-viewers, audio mixers, robotic cameras and graphics devices
- Supports fibre inputs and outputs
- Controlled with Maverik or the MLC panel family
- K-Watch and K-Mirror application software also available

Specifications

TV Standards

2.97Gbps Video Standards (1080p)

2.97Gbps Video Standards (1080p)
1080p 59.94Hz SMPTE-424M
1080p 59.94Hz SMPTE-425M/Level A
1080p 59.94Hz SMPTE-425M/Level B
1080p 50Hz SMPTE-424M
1080p 50Hz SMPTE-425M/Level A
1080p 50Hz SMPTE-425M/Level B

1.485Gbps Video Standards (HD)

1080i 60Hz SMPTE- 274M(4), -292M(D)
1080i 59.94Hz SMPTE-274M(5), -292M(H)
1080i 50Hz SMPTE- 274M(6), -292M(F)
1035i 60Hz SMPTE -260M, -292M(A)
1035i 59.94Hz SMPTE-260M, -292M(B)
1080p 30Hz sF
1080p 29.97Hz sF
1080p 25Hz sF
1080p 24Hz sF
1080p 23.976Hz sF
1080p 30Hz SMPTE- 274M(7) -292M(G)
1080p 29.97Hz SMPTE- 274M(8) -292M(H)
1080p 25Hz SMPTE- 274M(9) -292M(I)
1080p 24Hz SMPTE- 274M(10) -292M(J)
1080p 23.976Hz SMPTE - 274M(11) -292M(K)
720p 60Hz SMPTE- 296M(1), -292M(L)
720p 59.94Hz SMPTE- 296M(2), -292M(M)
720p 50Hz SMPTE- 296M(2), -292M(M)

270Mbps Video Standards (SD)

576i 16:9
576i 4:3
480i 16:9
480i 4:3

Reference

Analog genlock High definition tri-level syncs signal or SD 1V B and B.

Mainframe

Video Signal Inputs

Up to 120, HD/SD-SDI

Grouped in 12 off SD/HD/1080p (270Mbps / 1.485Gbps / 2.97Gbps). As REC601/ SMPTE . 292M / SMPTE424M via BNC connectors. Genlock reference 4 off Analog Sync (loop A and B through).

Serial digital interface

Video Signal Outputs

Up to 64 HD/SD-SDI

Grouped in 16 off , programmable via BNC connectors.

2 Independent Sync O/P

With adjustable Phase off set per Ref Fin (4 in total).

Control Interfaces

120 Tally/GPO Outputs

Isolated contact closures via 25 way D Type (12 per Input Fin). 96 GPI TTL-level I/P Via 25-way D-type connectors (2 x 48) per Ref Fin.

120 GPO Tally/GPO O/P

Isolated contact closures via 25 way D Type (12 per Input Fin). With additional XLR security

16 10/100/1000 baseT

RJ45 Ethernet connectors (2 x 8) per Net Fin. 12 RS422 control ports (2 x 6) per RTR card. 2 x USB

Power

Kahuna mainframe

Auto sensing 100-250 VAC Power supply 50/60 Hz nominal. Two fully independent hot swappable PSU modules, with separate mains power feeds via 2 x 16A IEC-C20 socket. Dual Redundant requires two more fully independent PSU modules; with separate mains power feeds via 2 x 16A IEC socket.

Kahuna 9600 mainframe

3KW Maximum with all power consumption options fitted. 41 to 104 ° F, 5 to 40° C non condensing operating.

Temp range

Mainframe Mechanics

11 rack unit

Height

488mm, 19.21".

Depth

647mm, 25.57".

18 Input / Output and Control Slots.
10 x 12 Input Fin Slots.
4 x 16 Output Fin Slots .
2 x Control Fin Slots .
Front fitting processing PCBs & PSUs.

www.s-a-m.com

Pre Configured Mainframes with 2 Channels of 3D 3VE

Number of Full M/Es	2	3	4	5
Order Code	9664100	9664110	9664120	9664130

Pre Configured Mainframes

Number of Full M/Es	2	3	4	5
Order Code	9664150	9664160	9664170	9664180

All Include:

- 48 Inputs
- 24 Outputs
- RGB Input and output color correction
- Programmable outputs
- External control
- Redundant mainframe power supplies
- Internal multiviewer

Base Mainframes

Number of Full M/Es	1	2	3	4	5	6
Order Code	9664200	9664210	9664220	9664230	9664240	9664250

All Include:

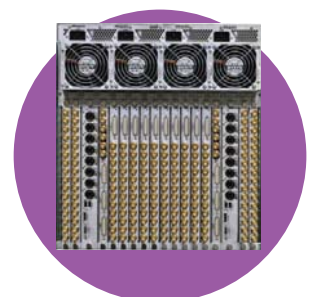
- 12 Inputs
- 8 Outputs

Mainframe options

Inputs	Order Code	Outputs	Order Code
24 Inputs	9664500	16 Outputs	9664400
36 Inputs	9664501	24 Outputs	9664401
48 Inputs	9664502	32 Outputs	9664402
60 Inputs	9664503	40 Outputs	9664403
72 Inputs	9664504	48 Outputs	9664404
84 Inputs	9664505	56 Outputs	9664405
96 Inputs	9664506	64 Outputs	9664406
108 Inputs	9664507		
120 Inputs	9664508		

M/Es of Format Fusion3 (all inputs)	Order Code	Outputs Format Fusion3	Order Code
6	9669602	8	9669718
5	9669582	16	9669728
4	9669562	24	9669738
3	9669542	32	9669748
2	9669522	40	9669758
1	9669502	48	9669768
		56	9669778
		64	9669788

Other Options	Order Code
Upgrade DVE to 3 Channels	9664595A
Upgrade DVE to 4 Channels	9664596A
Input color correction	9668855
External control protocols	9668890
Camera interface	9668891
Programmable outputs	9668859
Output color correction	9668856
Audio mixer interface	9668892
News production interface	9668893
10 output clipstore - 32Gb	9668810
20 output clipstore - 64Gb	9668840
Cliptrax	9668850
MLC Control panel redundant PSU	9648401
MLC GUI PSU	9648703
Application Software	
K-Watch	9648697
K-Mirror	9648698



Kahuna 6400 Production Switcher

The Kahuna 6400 delivers huge power to the widest range of applications including regional news, sports production, houses of worship and magazine programs. With the ability to work in all environments including 4K, Kahuna 6400 redefines what's possible in the mid size production arena.

Along with the advanced 3D DVE the Kahuna 6400 features new 2.5D resize engines, giving more power at the M/E level. The Kahuna 6400 provides up to 12 M/Es, 24 keyers and 36 key layers, shared across multiple productions.

Main features

For sporting events, light entertainment shows, news production and presentations either in the studio control room, mobile vehicle or flyaways, the Kahuna 6400 offers an elegant, reliable solution in a well engineered package that is understood the world over.

- Up to 3 full M/Es
- Make M/E™ for creating up to 12
- M/Es for main or aux outputs
- Every M/E has 8 keyers per M/E regardless of format
 - 4 superkeyers with linear, luminance, chroma key
 - 8 Resize engines with 2.5D DVE manipulation
 - 4 eKeys with linear, luminance and chroma key
- Up to 60 inputs (12 inputs as standard, upgrade in groups of 12)
- Up to 32 fully assignable outputs (8 outputs as standard, upgrade in groups of 8)
- Internal multiviewer
- FormatFusion3 available on all inputs and outputs
- 3D DVE suite of effects with flexible combiners
- Large internal clipstore with 10 outputs supporting 4 minutes of uncompressed HD video
- RGB color correction available on all inputs and outputs
- Programmable outputs

- Large external integration capacity with 3rd party equipment such as servers, routers, multi-viewers, audio mixers, robotic cameras and graphics devices
- Supports fibre inputs and outputs
- Controlled with Maverik or the MLC panel family
- K-Watch and K-Mirror application software also available

Specifications

TV Standards

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1080p 50Hz SMPTE-425M/Level A
1080p 50Hz SMPTE-425M/Level B

1.485Gbps Video Standards (HD)

1080i 60Hz SMPTE-274M(4), -292M(D)
1080i 59.94Hz SMPTE-274M(5), -292M(E)
1080i 50Hz SMPTE-274M(6), -292M(F)
1035i 60Hz SMPTE-260M, -292M(A)
1035i 59.94Hz SMPTE-260M, -292M(B)
1080p 30Hz sF
1080p 29.97Hz sF
1080p 25Hz sF
1080p 24Hz sF
1080p 23.976Hz sF
1080p 30Hz SMPTE-274M(7) -292M(G)
1080p 29.97Hz SMPTE-274M(8) -292M(H)
1080p 25Hz SMPTE-274M(9) -292M(I)
1080p 24Hz SMPTE-274M(10) -292M(J)
1080p 23.976Hz SMPTE-274M(11) -292M(K)
720p 60Hz SMPTE-296M(1), -292M(L)
720p 59.94Hz SMPTE-296M(2), -292M(M)
720p 50Hz SMPTE-296M(2), -292M(M)

270Mbps Video Standards (SD)

576i 16:9
576i 4:3
480i 16:9
480i 4:3

Reference

Analog genlock High definition tri-level syncs signal or SD 1V B and B.



**Supports
4K**

Mainframe

Video Signal Inputs

Up to 60 x HD/SD-SD

Grouped in 12 off SD/HD/1080p(270Mbps / 1.485Gbps / 2.97Gbps). As REC601/ SMPTE . 292M / SMPTE424M via BNC connectors. Genlock reference 4 off Analog Sync (loop A and B through).

Serial digital interface

Video Signal Outputs

Up to 32 HD/SD-SDI

Grouped in 16 off, programmable via BNC connectors.

2 Independent Sync O/P

With adjustable Phase off set

Control Interfaces

60 Tally/GPO Outputs

Isolated contact closures via 25 way D Type (12 per Input Fin).

48x GPI TTL-level I/P

Via 25-way D-type connectors

8x 10/100/1000 baseT

With additional XLR security RJ45 Ethernet connectors fixings (2 x 8) per Net Fin.

6x RS422 control ports
2 x USB

On the RTR card.

Power

Kahuna mainframe

Auto sensing 100-250 VAC Power supply 50/60 Hz nominal. Two fully independent hot swappable PSU modules, with separate mains power feeds via 2 x 16A IEC-C20 socket. Dual redundancy supplied by the second PSU.

Temp range

41 to 104 ° F, 5 to 40° C non condensing operating.

Mainframe Mechanics

6 rack unit

Height

10.47 inches (266mm)

Width

19.07 inches (484.5mm)

Depth

24.81 inches (630.1mm)

(inc. door)

Weight

40kg.

Pre Configured Mainframes with 2 Channels of 3D 3VE

Number of Full M/Es	2
Order Code	9663200

Pre Configured Mainframes

Number of Full M/Es	1	2	3
Order Code	9663170	9663180	9663190
Inputs	12	48	48
Outputs	8	24	24

All Include:

- 12 Inputs
- 8 Outputs
- RGB Input and output color correction
- Programmable outputs
- External control
- Redundant mainframe power supplies
- Internal multiviewer

Base Mainframes

Number of Full M/Es	1	2	3
Order Code	9663210	9663220	9663230

All Include:

- 12 Inputs
- 8 Outputs

Mainframe options

Inputs	Order Code	Outputs	Order Code
24 Inputs	9664500	16 Outputs	9664400
36 Inputs	9664501	24 Outputs	9664401
48 Inputs	9664502	32 Outputs	9664402
60 Inputs	9664503		
46 - 60 Inputs (Upgrade from pre-configured system)	9664524		

M/Es of Format Fusion3 (all inputs)	Order Code	Outputs Format Fusion3	Order Code
3	9669542	8	9669718
2	9669522	16	9669728
1	9669502	24	9669738
		32	9669748

Other Options	Order Code
Upgrade DVE to 3 Channels	9664595A
Upgrade DVE to 4 Channels	9664596A
Input color correction	9668855
External control protocols	9668890
Camera interface	9668891
Programmable outputs	9668859
Output color correction	9668856
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