

Kahuna™ - 1M/E HD Kahuna MF

The break through multi format performance of the Kahuna Production Switcher is now provided in a 3 Rack Unit Mainframe. This entry level variant of the Kahuna series provides all the ground breaking functionality that has made Kahuna the leading Production Switcher in the industry. This one M/E Solution provides facilities the flexibility of multi format environments with a substantial feature set.

Powered by Snell & Wilcox's exclusive FormatFusion signal processing technology, Kahuna breaks the video format barrier enabling seamless real-time mixing of SD and HD video, in any format, without compromise or loss of quality. Designed for live mobile, studio and news production, Kahuna offers a familiar user interface while delivering superior multiformat picture quality in busy, fast-paced, live production environments. Never before has such advanced and innovative signal processing technology been combined in a single, versatile production switcher.

Kahuna allows a gradual, controlled transition to HDTV, putting the broadcast customer in total control of when to transition to the next generation of television technology.

Hardware

- 1 M/E Mainframe
- GUI
- 1 M/E Control Panel

Features

- 4 Keyers
- Resize Engine per keyer
- 4 Chroma Keyers
- Programmable Outputs
- Still / Clipstore
- Format Fusion™
- GPI's / GPO's
- Safe Area Generator
- External Serial Control (RS 422)
- Key Border Generator
- Background FormatFusion

Available options

- Resize engine Effects
- RGB Color Correction (Input)
- RGB Color Correction (Output)
- Modulation
- Cliptrax™
- Clipstore extension
- Ancillary Data
- Redundant Power supply for Mainframe
- Redundant Power supply for Control Panel

1 M/E Control Surface



Part Number: K_1ME_CP_MNEM Order Code: 9648100A
 Height: 13.1 inches ~ 355mm
 Width: 25.5 inches ~ 648mm
 Depth: 6.4 inches ~ 163.7mm
 Weight: 16.7lbs ~7.6kg

GUI Panel



Part Number: K_GUI Order Code: 9648700A
 Height: 11.5 inches ~292.6mm (including stand)
 Width: 16.9 inches ~430mm
 Depth: 3.2 inches ~81.7mm
 Weight: 13.8lbs ~6.3kg

3RU Front Panel



Size: 3RU
 Height: 5.2 inches ~132.3mm
 Width: 19.0 inches ~482.6mm
 Depth: 23.4 inches ~594.8mm
 Weight: 40lbs ~ 18kg

3RU Rear Panel





FormatFusion™

FormatFusion enables Kahuna to offer total format freedom with any broadcast format for inputs and outputs. Any of the 20 inputs are free to be assigned to be SD or HD with no restriction.

FormatFusion completely eliminates the need for external conversion boxes. This not only reduces cost and complexity, but results in a low latency infrastructure with significantly fewer timing errors.

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Company policy is one of continuous product improvement. Specifications are therefore subject to change without notice.

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Features

Video Signal Inputs

20 SD/HD Serial Digital	270Mbit/s/ 1.485Gbit/s serial digital interface as REC601/ SMPTE 292M via BNC connectors
Genlock Reference A&B	2 x Analog Sync (loop through)

Video Signal Outputs

Programmable HD/SD-SDI	4 x BNC connectors (1 feed per output)
Timed Aux HD/SD SDI	4 x BNC connectors (1 feed per output)
1x Analog Sync Out	Timing Adjustable Sync output

Additional Video Signal Outputs

Source AUX HD/SD SDI	8 x BNC connectors
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Control Interfaces

External Interfaces	2 x freely-assignable RS422 each via 1 x 9-way D-type
Diagnostics	2 x RS232 (DCE) via 1 x 9-way D-type connector

Control Interfaces Shared

GPI Inputs	14 x TTL-level inputs via 1 x 15-way D-type connectors
Tally/GPO Outputs	24 x isolated contact closures via 2 x 25-way D-type connectors
10/100 Base T Ethernet connections (Reserved for Slot 2)	1 x RJ45 connectors. Used for panel control, FTP, Offline download. NOT Auto – MDX/MDXI on RJ45 connector

Control Interfaces on Ancillary Panels

Mainframe	1x 10/100 base T via 1 x RJ45 connector (to GUI) NOT Auto – MDX/MDXI on RJ45 connector
GUI (Graphical user display)	25-way D-type connector (to Control Surface)
3 USB Ports	USB 1.1/2.0 Ports (2 on Rear 1 on front of GUI)
Aux Control Port	RJ45 Daisy chain for 1U AUX panels
Main Aux, ShotBox or Micropanel	15 Way Dtype on Main Panel and GUI (with Power 3m)
Spare Control to: (ShotBox or Micropanel)	15 Way Dtype on GUI

Specifications

TV Standards (Options)	625/525	4:3
	625/525	16:9
	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

Analog Genlock signal	High definition tri-level syncs or SD 1V B&B
Input Return Loss	>15 dB to 750 MHz >12 dB to 1500
Maximum Input Cable Length	Exceeds SMPTE292 recommendations >= 100 m of Belden 8281 cable
Video Signal Output Return Loss	>15 dB to 750 MHz >12 dB to 1500

Internal Processing

Pb & Pr Data Rate	37.125/6.75 MHz or(/1.001) MHz (4:2:2) @12bit
Resolution	10 bits. Output
Luma & Key Data Rate	74.25/13.5 MHz or (74.25/1.001) MHz @12bit

Power

Kahuna Mainframe Power Supply	Auto sensing 100-250 VAC 50/60 Hz nominal One fully independent hot-swappable PSU module, with a single mains power feed via 1 x 10A IEC-C20 socket. The mainframe will function normally using only one PSU, Dual Redundancy requires the use of the second PSU.
1M/E Control Panel Power Supply	+12V, 5A supplied by a 25 way D-type connector, using one or two external PSU modules
Kahuna Mainframe Power Consumption	No more than 450 W Maximum with all options fitted
1M/E Control Panel Power Consumption	50W Maximum. Auto sensing 100-250 VAC 50/60 Hz nominal Provision for two fully independent external PSU's giving dual redundant operation

Mainframe

Temperature Range	5 to 35° C non condensing operating
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Control Surfaces and Ancillary Panels

Temperature Range	5 to 35° C non condensing operating
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