

Kula AV MSP

1 M/E HD Production Switcher



Kula AV MSP is an “All in One” production switcher designed for the professional broadcast and AV markets. Along with a powerful production switcher feature set in a compact system, the Kula AV includes internal audio mixer functionality.

Kula AV MSP from Grass Valley is available as a 1 M/E HD-SDI switcher in a compact 2 RU mainframe with the new Maverik Soft Panel (MSP) suitable for fly-packs, sub or remote mixes, and applications where desk space is a premium.

Main Features

In addition to Kula’s recognized 1080p production switcher performance, the Kula AV MSP is an all-in-one solution offering multiviewers, format conversion, audio mixing and a graphics interface within its 2 RU engine. Kula AV MSP has been designed for the likes of Houses of Worship, regional news, sports, events, conferences and education. It is the perfect solution for each environment offering a huge range of features. Kula AV MSP may be a compact production switcher but it packs a huge punch.

Supports Audio Mixer Functionality

Kula AV MSP includes the audio-follow-video function where each video input can have a group of one or several audio sources linked to it. When Kula AV MSP performs a transition on the video switcher, the audio mixer will follow with a cross-fade between the two audio inputs.

Kula AV MSP also supports audio substitution allowing the audio from your video source to be replaced with a selected audio source.

RT Software® Swift (tOG 2D) Graphics

Swift broadcast graphics from RT Software are bundled with the Kula AV MSP to provide an intuitive creative tool for text, clocks, tickers/crawls, tables and video/clip handling. Once created, graphics are automatically loaded directly into the Kula AV MSP ClipStore for immediate use. The Swift graphics integration adds the flexibility needed for the most demanding productions.

Supports Mixed SD/HD Environments

Kula AV MSP can output multiple standards simultaneously using Grass Valley’s unique FormatFusion3 internal conversion technology, opening up multistandard production in HD, SD and 1080p. If legacy material is SD and your production is HD, Kula AV MSP deals with both standards easily and effectively. Using FormatFusion3, Kula AV MSP converts the standard automatically, freeing up precious time for your operator to focus on their creative production.

Maverik Soft Panel (MSP) Supports Direct Control and Macro Allocation

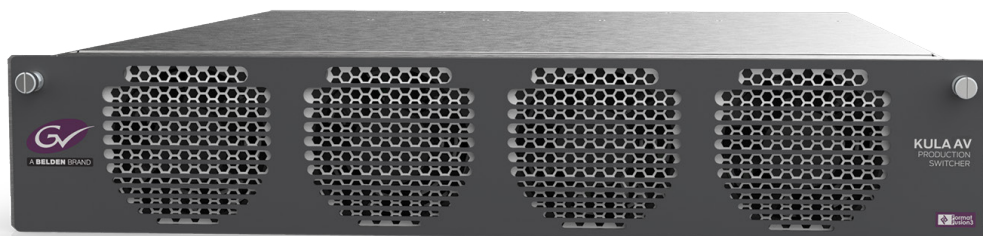
Kula AV MSP has the new MSP software control panel. It offers 16 cross-point buttons, separate key control and transition operations and assignable macro buttons. For complete control of the audio mixer channels Kula AV MSP is supplied with a total of 92 separate audio faders.

Multiviewer Built on Kahuna’s High Performance

Kula AV MSP’s internal multiviewer offers flexibility with four configurable heads and 12 tiles to build preview windows to prepare for professional live productions.

Large ClipStore

The Kula AV MSP has a large internal ClipStore with ten ClipStore outputs supported by a 1 TB hard disk.



KEY FEATURES

- 2 rack units
- 40 video inputs
- 12 assignable video outputs
- 2 BNCs configurable as an input or output enables I/O range from 42x12 to 40x14
- Mix/Effect supports:
 - Four full effects keyers with lin/luma
 - Four assignable 2D DVE engines (will give eight independent boxes)
 - Chromakeys available on all keys
 - Transition keyer (Mav Trans) with dedicated ClipStores for key & fill
 - Mask generator per keyer
 - Separate wipe generator
 - Matte generator
- Large internal ClipStore with 10 outputs holding uncompressed video and audio content that is totally routable
- Eight channels of FormatFusion3 assignable to any input or output
- Four floating resizable downstream keyers
- Internal multiviewer with four heads and 12 tiles available
- Maverik Soft Panel application to be installed on customer supplied PC or Laptop
- Swift broadcast graphics from RT Software are bundled with Kula AV MSP to provide an intuitive creative tool for text, clocks, tickers/crawls, tables and video/clip handling
- 80 input x 56 output audio mixer. Audio functionality includes embed/de-embedding, routing with clean & quiet audio switching and audio-follow-video mode for simplified control

SPECIFICATIONS

Kula Mainframe

TV Standards

- 2.97 Gb/s Video Standards (1080p):
- 1080p 59.94 Hz SMPTE ST 424
 - 1080p 59.94 Hz SMPTE ST 425/Level A
 - 1080p 59.94 Hz SMPTE ST 425/Level B
 - 1080p 50 Hz SMPTE ST 424
 - 1080p 50 Hz SMPTE ST 425/Level A
 - 1080p 50 Hz SMPTE ST 425/Level B
- 1.485 Gb/s Video Standards (HD):
- 1080i 60 Hz SMPTE ST 274(4)/292(D)
 - 1080i 59.94 Hz SMPTE ST 274(5)/292(E)
 - 1080i 50 Hz SMPTE ST 274(6)/292(F)
 - 1035i 60 Hz SMPTE ST 260/292(A)
 - 1035i 59.94 Hz SMPTE ST 260/292(B)
 - 1080p 30 Hz sF
 - 1080p 29.97 Hz sF
 - 1080p 25 Hz sF
 - 1080p 24 Hz sF
 - 1080p 23.976 Hz sF
 - 1080p 30 Hz SMPTE ST 274(7)/292(G)
 - 1080p 29.97 Hz SMPTE ST 274(8)/292(H)
 - 1080p 25 Hz SMPTE ST 274(9)/292(I)
 - 1080p 24 Hz SMPTE ST 274(10)/292(J)
 - 1080p 23.976 Hz SMPTE ST 274(11)/292(K)
 - 720p 60 Hz SMPTE ST 296(1)/292(L)
 - 720p 59.94 Hz SMPTE ST 296(2)/292(M)
 - 720p 50 Hz SMPTE ST 296(2)/292(M)

270 Mb/s Video Standards (SD):

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

Audio Connections

- 4x AES stereo inputs
- 4x AES stereo outputs

Video Signal Inputs

- 40 inputs (270 Mb/s / 1.485 Gb/s / 2.97 Gb/s)
- 2 BNCs configurable as an input or output
- Serial digital interface as REC601/SMPTE ST 292/SMPTE ST 424 via BNC connectors

Video Signal Outputs

- 12 assignable outputs assignable via BNC connectors
- 2 BNCs configurable as an input or output

Reference

- Analog genlock high-definition tri-level syncs signal or SD 1V B and B
- Genlock reference 1 off analog sync via BNC connector

Control Interfaces

- 44 GPI Tally/GPO outputs assignable GPI/GPO isolated contact closures via 2x 25-way D-type. Assignable as GPI or GPO
- 1x 25-way D-type AES audio
- 10/100/1000base-T via 3x RJ45 Ethernet connectors
- 4 RS-422 control ports
- 2x USB 3

Power

- Kula AV 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 2x 13A
- IEC - 320-C14 socket
- Power consumption: <400W
- Temp range: 5 to 40°C (41 to 104°F) non-condensing operating

Mainframe Mechanics

- 2 rack units
- Height: 87 mm (3.42 in.)
- Depth: 604.8 mm (23.81 in.)
- Weight: Approx. 14 kg (30.3 lbs.)

Graphics

RT Software Connections

- Customer-supplied PC requires network cable for connection to Kula AV

Note: PC supplied by customer, 1-year RT Software license included

ORDERING

KULA-AV-1ME-MSP

1 M/E Kula AV 3G MSP System

2 RU 3G-SDI mainframe with 1 M/E. Maverik Soft Panel application and RT Software license for Kula AV mainframe



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