

## ATEM Constellation 8K



Ultra HD live production switcher with so many features, you can combine them all to make an incredibly powerful 8K switcher! This massive 4 M/E switcher features 40 12G-SDI inputs, 24 12G-SDI aux outputs, 4 DVEs, 16 ATEM Advanced Chroma Keyers, 4 media players, 4 independent Ultra HD multi viewers, 2 SuperSource processors and even standards conversion on all inputs! When switched to work in 8K, all of these features are be combined to make a powerful native 8K switcher! You even get built in talkback and a professional 156 channel Fairlight audio mixer with EQ and dynamics!

### Connections

#### Total Video Inputs

40 x up to Ultra HD / 10 x in 8K

#### Total Video Outputs

28 x up to Ultra HD / 7 x in 8K

#### Total Aux Outputs

24 x up to Ultra HD / 6 x in 8K

#### SDI Rates

1.5G, 3G, 6G, 12G

#### Total Audio Inputs

2 x balanced 1/4 inch Jack, 1 x 32 stereo channel BNC MADI in.

#### Total Audio Outputs

2 x balanced 1/4 inch Jack, 2 x 32 stereo channel BNC MADI out.

#### Timecode Connections

None

#### Reference Input

Tri-Sync or Black Burst.

#### Video Input Re-sync

On all 40 inputs.

#### Frame rate and format converters

On all 40 inputs.

#### SDI Video Inputs

40 x 10-bit 720p, 1080i, 1080p, 2160p and 10 x 4320p switchable.

#### Extra Audio Outputs

1 x 5 pin XLR Talkback.

#### SDI Audio Outputs

2 Ch embedded into SDI output on all outputs.

#### Extra Audio Inputs

1 x 5 pin XLR Talkback.

#### SDI Program Outputs

Any of the 24 SDI outputs.

#### Down Converted SDI

#### Program Output

None

#### SDI Preview Outputs

Any of the 24 SDI outputs.

#### Total Multi Views

4 x up to Ultra HD / 1 x in 8K

#### SDI Multi View Outputs

4

#### HDMI Multi View Outputs

None

#### Control Panel Connection

Ethernet supports 10/100/1000 BaseT. Allows direct connection between panel and chassis, or via network.

#### Internal Timecode Generator

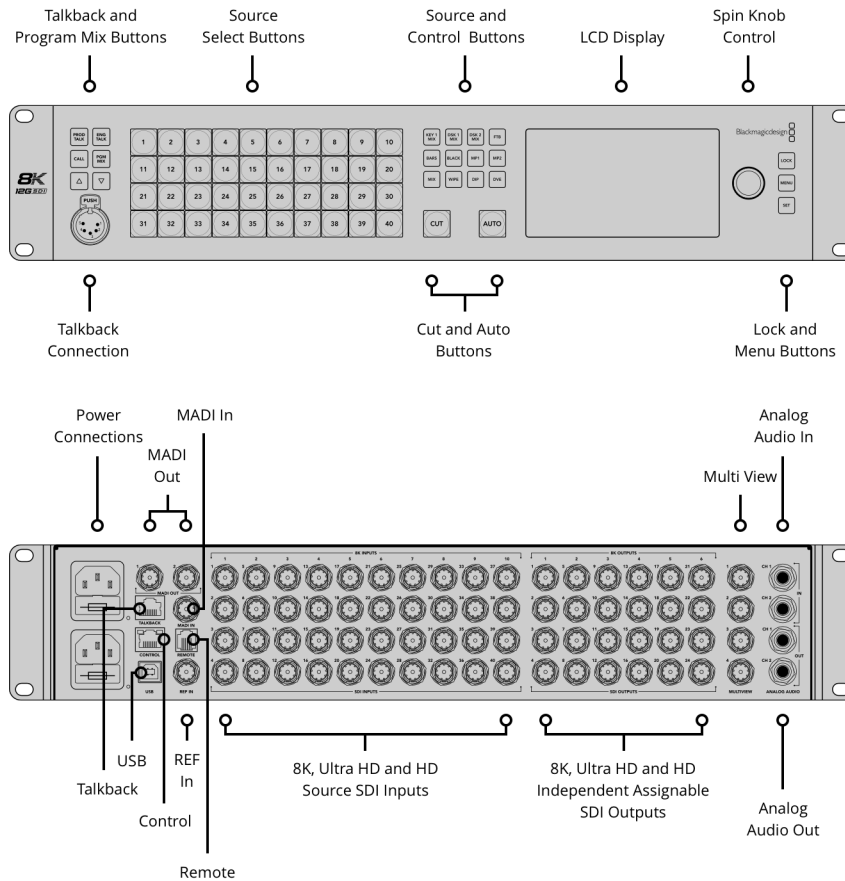
Yes

#### Tally Output

Added via ethernet connection to Blackmagic Design GPI and Tally Interface product. (Not included).

#### Computer Interface

1 x USB 2.0 port.



## Standards

### SD Video Standards

None

### HD Video Standards

720p50, 720p59.94  
1080i50, 1080i59.94  
1080p23.98, 1080p24, 1080p25,  
1080p29.97, 1080p50, 1080p59.94

### Ultra HD Video Standards

2160p23.98, 2160p24, 2160p25,  
2160p29.97, 2160p50, 2160p59.94

### 8K Video Standards

4320p23.98, 4320p24, 4320p25,  
4320p29.97, 4320p50, 4320p59.94

### SDI Compliance

SMPTE 292M, SMPTE 296M,  
SMPTE 424M, SMPTE 425M Level A  
and B, SMPTE 2081-1, SMPTE  
2081-10, SMPTE 2082-1 and SMPTE  
2082-10, SMPTE 2082-12.

### Video Sampling

4:2:2

### Color Precision

10-bit.

### Color Space

REC 601, REC 709, REC 2020.

### SDI Auto Switching

Automatically detects between level A  
and level B 3G-SDI, 6G-SDI and 12G-  
SDI. Requires 2SI in 8K mode.

## Product Specifics

### Upstream Keys

16 x up to Ultra HD / 4 x in 8K with  
Chroma/Linear/Luma key.

### Downstream Keys

4 x up to Ultra HD / 2 x in 8K.

### Advanced Chroma Keys

16 x up to Ultra HD / 4 x in 8K.

### Talkback Support

Yes

### Mix Minus Support

Yes

<b>Linear/Luma Keyers</b> 21 x up to Ultra HD / 7 x in 8K	<b>Color Generators</b> 2	<b>Routable Windows</b> 64 x up to Ultra HD / 16 x in 8K
<b>Transition Keyer (Stinger/DVE)</b> 4 Stinger, 4 DVE .	<b>DVE with 3D Borders &amp; Drop Shadow</b> 4 x up to Ultra HD / 1 x in 8K	<b>Tally</b> Red for program and green for preview indication.
<b>Total Number of Layers</b> 28 x up to Ultra HD / 7 x in 8K	<b>Control Panel</b> Front fascia emergency switching, software or optional hardware panel.	<b>Windows Source Labels</b> Yes
<b>Pattern Generators</b> 21 x up to Ultra HD / 9 x in 8K		

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## Multi View Monitoring

<b>Multi View Monitoring</b> 4 x 16 Multi View pattern options for up to 64 total views.	<b>Multi View Video Standard</b> Select HD, Ultra HD or 8K.
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## Media Player

<b>Media Players</b> 4 x up to Ultra HD / 1 x in 8K	<b>Media Pool Clip Capacity</b> 4 x up to Ultra HD / 2 x in 8K with fill and key.	<b>Media Player Clip Length in 8K</b> 100 frames.
<b>Channels</b> Fill and key for each media player.	<b>Media Player Clip Length in 720 HD</b> 3200 frames.	<b>Media Pool Still Image Format</b> PNG, TGA, BMP, GIF, JPEG and TIFF.
<b>Media Pool Still Image Capacity</b> 64 x up to Ultra HD / 24 x in 8K with fill and key.	<b>Media Player Clip Length in 1080 HD</b> 1600 frames.	<b>Media Pool Video File Format</b> TGA Sequence.
	<b>Media Player Clip Length in Ultra HD</b> 400 frames.	<b>Media Pool Audio File Format</b> WAV, MP3 and AIFF.

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## Display

<b>Interface</b> Minimum monitor resolution of 1366 x 768.	<b>Front panel</b> Built in HD LCD monitor for video, 42 LED buttons for setup and emergency switching, 8 source buttons, 4 transition buttons, 6 talkback selection and mix buttons, menu control knob and set button, front panel lock button.
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## Processing

### Processing Delay

< 7 lines in up to Ultra HD / in 10 lines in 8K

### Audio Mixer

156 Channel mixer  
Selectable On/Off/Audio-Follow-Video.  
Level and Peak metering.  
Master gain control.  
6 band parametric EQ, Dynamics including Expander, Gate, Compressor and Limiter.

### Down Conversion

None

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## Software

### Control Panel Included

ATEM Software Control Panel included free for Mac 10.13 High Sierra, Mac 10.14 Mojave or later and Windows 8.1 64-bit or Windows 10 64-bit.

### Software Updates

Using USB 2.0 connection directly connected to Mac OS or Windows computers. Includes ATEM Setup Utility.

### Configuration

Set via ATEM Software Control Panel, excluding ATEM chassis IP address which is set via the ATEM Setup Utility connected via USB to chassis.

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## Operating Systems



Mac 10.14 Mojave,  
Mac 10.15 Catalina or later.



Windows 8.1 and 10, both 64-bit.

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## Power Requirements

### Power Supply

2 x Internal 100 - 240 AC.

### Power Usage

300W

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## Physical Specifications



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## Physical Installation

### Physical Installation

2 Rack Unit Size.

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## Environmental Specifications

### Operating Temperature

0° to 40° C (32° to 104° F)

### Storage Temperature

-20° to 60° C (-4° to 140° F)

### Relative Humidity

0% to 90% non-condensing

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