### ATEM 2 M/E Production Studio 4K

The new ATEM 2 M/E Production Studio 4K lets you produce broadcast quality live multi camera production in SD, HD or amazing Ultra HD! Featuring 20 inputs with built in re-synchronizers so you can connect the widest range of video sources such as cameras, disk recorders and computers for incredible live music, sport and more! ATEM 2 M/E Production Studio 4K has advanced broadcast features such as chroma key, customizable transitions, upstream and downstream keyers, DVE, Super Source, audio mixer, 2 x multi views, media pool and more! You also get 6G-SDI and HDMI 4K connections and 6 auxiliary outputs for the most advanced live production switching!

### Connections

<table>
<thead>
<tr>
<th>Connections</th>
<th>SDI Video Inputs</th>
<th>HDMI Video Inputs</th>
<th>SDI Preview Outputs</th>
<th>Total Multi Views</th>
<th>SDI Multi View Outputs</th>
<th>HDMI Multi View Outputs</th>
<th>Control Panel Connection</th>
<th>Tally Output</th>
<th>Computer Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Video Inputs</td>
<td>21 with 20 active</td>
<td>20 x 10-bit SD/HD/Ultra HD 4K switchable. 2 channel embedded audio.</td>
<td>1 x 10-bit SD/HD/Ultra HD 4K switchable.</td>
<td>2</td>
<td></td>
<td>2</td>
<td>Ethernet supports 10/100/1000 BaseT. Allows direct connection between panel and chassis, or via network.</td>
<td>Added via ethernet connection to Blackmagic Design GPI and Tally Interface product. (Not included.)</td>
<td>1 x USB 2.0 port.</td>
</tr>
<tr>
<td>Total Video Outputs</td>
<td>16</td>
<td>1 x HDMI type A, 10-bit SD/HD/Ultra HD 4K switchable. 2 channel embedded audio.</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Aux Outputs</td>
<td>6</td>
<td>2 Ch embedded into SDI output on all outputs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDI Rates</td>
<td>270Mb, 1.5G, 3G, 6G.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Audio Inputs</td>
<td>2 x XLR, 2 x RCA.</td>
<td>3 x 10-bit SD/HD/Ultra HD 4K switchable.</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Audio Outputs</td>
<td>2 x XLR Program 2 x XLR Monitor.</td>
<td>1 x HDMI type A, 10-bit SD/HD/Ultra HD 4K switchable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timecode Connection</td>
<td>1 x XLR in and 1 x XLR out.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference Input</td>
<td>Tri-Sync or Black Burst.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video Input Re-Sync</td>
<td>On all 20 inputs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDMI Program Outputs</td>
<td>1 x HDMI type A, 10-bit SD/HD/Ultra HD 4K switchable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Down Converted SDI Program Outputs</td>
<td>1 x 10-bit (Ultra HD 4K to HD).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Standards

SD Video Standards
525i59.94 NTSC, 625i50 PAL

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

Ultra HD Video Standards
2160p23.98, 2160p24, 2160p25,
2160p29.97

SDI Compliance
SMPTE 259M, SMPTE 292M, SMPTE 424M.

Video Sampling
4:2:2

Color Precision
10-bit

Color Space
REC 601, REC 709, REC 2020.

HDMI Input Resolutions for Computers
720 x 480i 59.94Hz,
720 x 576i 50Hz,
1280 x 720 59.94Hz,
1280 x 720 50Hz,
1920 x 1080 50Hz,
1920 x 1080 59.94Hz,
3840 x 2160 23.98Hz,
3840 x 2160 24Hz,
3840 x 2160 25Hz,
3840 x 2160 29.97Hz.

Note: Also supported are; 24, 30 and
60 Hz inputs when switcher is in
23.98, 29.97 and 59.94 Hz
formats respectively.

Product Specifics

Upstream Keyers
4 with Chroma/Linear/Luma key.

Chroma Keyers
4

Mix Minus Support
None

Downstream Keyers
2

Talkback Support
None

Linear/Luma Keyers
7

ATEM 2 M/E Production Studio 4K - Technical Specifications
<table>
<thead>
<tr>
<th>Transition Keyer (Stinger/DVE)</th>
<th>Pattern Generators</th>
<th>Drop Shadow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Stinger, 1 DVE.</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Number of Layers</strong></td>
<td><strong>Color Generators</strong></td>
<td><strong>Control Panel</strong></td>
</tr>
<tr>
<td>13</td>
<td>2</td>
<td>Software or optional hardware panel</td>
</tr>
</tbody>
</table>

**DVE with 3D Borders &**

<table>
<thead>
<tr>
<th><strong>Pattern Generators</strong></th>
<th><strong>Drop Shadow</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

**Color Generators**

2

**DVE with 3D Borders & Drop Shadow**

1

**Control Panel**

Software or optional hardware panel

---

### Media Player

**Media Players**

2

**Channels**

Fill and key for each media-player.

**Media Pool Still Image Capacity**

32 with fill and key

**Media Pool Clip Capacity**

2 with fill and key.

**Media Player Clip Length in NTSC/PAL**

3600 frames.

**Media Player Clip Length in 720p**

1600 frames

**Media Player Clip Length in 1080**

720 frames

**Media Player Clip Length in Ultra HD**

180 frames

**Media Pool Still Image Format**

PNG, TGA, BMP, GIF, JPEG and TIFF.

**Media Pool Video File Format**

TGA Sequence.

**Media Pool Audio File Format**

WAV, MP3 and AIFF.

---

### Multi View Monitoring

**Multi View Monitoring**

2 x 10 Views for 20 total views.

**Multi View Video Standard**

HD.

**Routable Windows**

16

**Tally**

Red for program and green for preview indication.

**Windows Source Labels**

Yes

---

### Display

**Interface**

Minimum monitor resolution of 1366 x 768.

**Front Panel**

Built in LCD monitor for video and 42 LED buttons for Aux switching.

---

### Processing

**Colorspace Conversion**

Hardware based real time.

**Processing Delay**

< 2 Lines

**4K to HD Down Conversion**

Yes, program x 1

**Audio Mixer**

22 input x 2 channel mixer.

Selectable On/Off/Audio-Follow-Video.

Level and Peak metering.

Master gain control.

Dedicated analog outputs for monitoring.
Software

Control Panel Included
ATEM Software Control Panel included free for Mac 10.12 Sierra, Mac 10.13 High Sierra 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.

Operating Systems

Mac 10.12 Sierra, Mac 10.13 High Sierra or later.

Windows 8.1 or Windows 10.

Power Requirements

Power Supply
2 x Internal 110 - 240V AC.

Power Usage
150 W

Physical Specifications

Physical Installation
2 Rack Unit Size.
Environmental Specifications

<table>
<thead>
<tr>
<th>Operating temperature</th>
<th>Storage temperature</th>
<th>Relative Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0° to 40° C (32° to 104° F)</td>
<td>-20° to 60° C (-4° to 140° F)</td>
<td>0% to 90% non-condensing</td>
</tr>
</tbody>
</table>

What's Included

ATEM 2 M/E Production Studio 4K
SD card with software and manual

Warranty

12 Month Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller