

ATEM 2 M/E Constellation HD



ATEM 2 M/E Constellation HD is a high definition live production switcher packed with advanced features! The 2 M/E design includes 20 standards converted 3G-SDI inputs and 12 independent 3G-SDI aux outputs! It also includes a USB webcam output, SuperSource processor, DVEs, chroma keyers, media players, multiviews and more! You even get built in talkback and a professional built in Fairlight audio mixer with EQ and dynamics!

Connections

Total Video Inputs

20

Total Video Outputs

12

SDI Rates

1.5G, 3G

Total Audio Inputs

2 x balanced 1/4 inch Jack,
1 x 5 pin XLR Talkback.

Total Audio Outputs

1 x 5 pin XLR Talkback.

SDI Audio Inputs

2 Ch embedded audio on all SDI inputs.

SDI Audio Outputs

2 Ch embedded audio on all SDI outputs.

Timecode Connections

None

Reference Input

Tri-Sync or Black Burst.

Video Input Re-Sync

On all 20 inputs.

Frame Rate and Format Converters

On all 20 inputs.

SDI Aux Outputs

Any of the 12 SDI outputs.

SDI Preview Outputs

Any of the 12 SDI outputs.

SDI Program Outputs

Any of the 12 SDI outputs.

Down Converted SDI

Program Output

None

Webcam Output

1 x USB-C supporting 720p or 1080p at PGM frame rate.

Total Multi Views

2 x 3G-SDI

Control Panel Connection

Ethernet. Direct connection between panel and chassis, or via network.

Internal Timecode Generator

Yes

Talkback

RJ45 for 3rd party talkback systems.

Tally Output

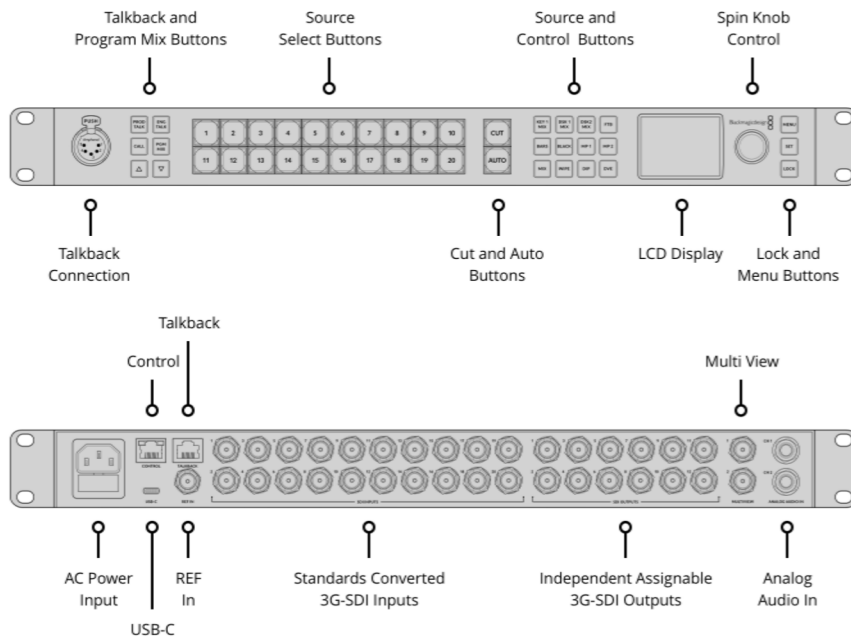
Added via ethernet connection to Blackmagic Design GPI and Tally Interface product. (Not included).

Ethernet

Supports 10/100/1000 BASE-T.

Computer Interface

1 x USB-C supports USB 3.1 Gen 1 (5Gb/s)



Standards

SD Video Standards

None

HD Video Standards

720p50, 720p59.94, 720p60
 1080i50, 1080i59.94, 1080i60
 1080p23.98, 1080p24, 1080p25,
 1080p29.97, 1080p30, 1080p50,
 1080p59.94, 1080p60

SDI Compliance

SMPTE 292M, SMPTE 296M,
 SMPTE 424M, SMPTE 425M level A
 and B.

Video Sampling

4:2:2

Color Precision

10-bit.

Color Space

REC 709

SDI Auto Switching

Automatically detects between 1.5G-SDI and level A or level B 3G-SDI.

Product Specifics

Upstream Keys

8

Downstream Keys

2

Advanced Chroma Keys

8

SuperSource

1

Talkback Support

Yes

Mix Minus Support

Yes

Linear/Luma Keys

11

Transition Keyer (Stinger/DVE)

2 Stinger, 2 DVE.

Total Number of Layers

15

Pattern Generators

11

Color Generators

2

Control Panel

Front fascia emergency switching,
 software or optional hardware panel.

Routable Windows

32

Tally

Red for program and green for
 preview indication.

Windows Source Labels

Yes

Multi View Monitoring

Multi View Monitoring

2 x multi views each configurable to 16, 13, 10, 7 or 4 up views. Includes monitoring of Program, Preview, Inputs, Media Players, M/Es, DSKs, SuperSource, Clean Feed with optional labels and audio meters.

Multi View Video Standard

HD

Display Minimum Resolution

1366 x 768

Media Player

Media Players

2

Channels

Fill and key for each media player.

Media Pool Still Image Capacity

60

Media Pool Clip Capacity

2 x up to 1080p60.

Media Player Clip Length in 720 HD

800 frames.

Media Player Clip Length in 1080 HD

400 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.

Display

Front panel

Built in 2.2 inch LCD monitor for video, 22 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.

Processing

Processing Delay

< 10 lines.

Audio Mixer

48 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

Software

Control Panel Included

ATEM Software Control Panel included free for Mac 11.11 Big Sur, Mac 12 Monterey or later and Windows 10 or 11.

Software Updates

Using USB or Ethernet 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 11.1 Big Sur,
Mac 12.0 Monterey or later.



Windows 10 and 11.

Power Requirements

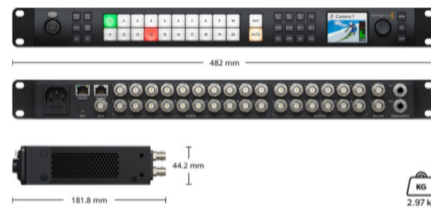
Power Supply

1 x Internal 100 - 240 AC.

Power Usage

52W

Physical Specifications



Physical Installation

Physical Installation

1 Rack Unit Size.

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

What's Included

AEM 2 M/E Constellation HD
Welcome wallet with QR code for software download

Warranty

12 Month Limited Manufacturer's Warranty.

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