EU Declaration of Conformity (DoC)

We

Company name:	**Blackmagic Design Pty Ltd**
Postal address:	11 Gateway Court
Postcode and City:	3207 Port Melbourne
Telephone number:	+61 3 9682 4770
E-mail address	compliance@blackmagicdesign.com

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus Model/Product:	ATEM 2 M/E Advanced Panel
Type:	Video Switcher
Batch:	N/A
Serial number:	Serial number greater than 56040

Object of the declaration (identification of apparatus allowing traceability; it may include a colour image of sufficient clarity where necessary for the identification of the apparatus):

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EMC Directive 2014/30/EU

Low Voltage Directive 2014/35/EU

RoHS Directive 2011/65/EU + (EU) 2015/863

The following harmonised standards and technical specifications have been applied:

Title, Date of standard/specification:

EN 55035	2017 + A11:2020
EN 55032	2015 + A11:2020
EN 63000	2018
EN 62368-1	2014 + AC:2015

Notified body (where applicable):	**4 digit notified body number:**
N.A.	N.A.

Additional information:

This product is supplied without a power cord

Signed for and on behalf of:

Blackmagic Design Pty Ltd	1/12/2021	Steve Brennan, Compliance Manager
Place of issue	Date of issue	Name, function, signature

Blackmagicdesign

ATEM 2 M/E Advanced Panel 20

The 2 M/E model features 2 M/E rows with 20 input buttons and 2 independent system control LCDs for each row. Plus each row can control up to 4 M/Es in larger switchers. Both rows and all input buttons include LCDs for custom labeling. Each row also includes an independent select bus!
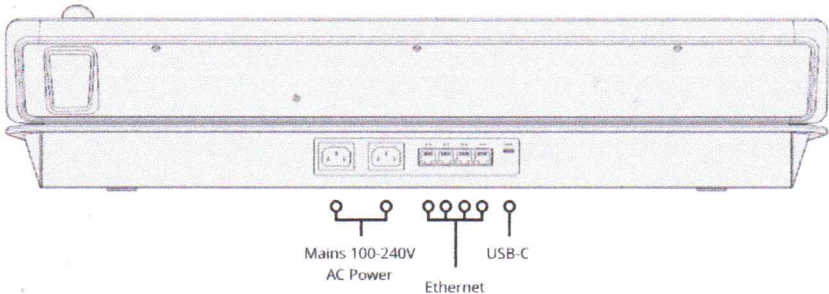
Connections

Ethernet

4 x 10/100/1000 BASE-T with loop output for additional control panels or computers.

Software Updates

1 x USB-C for firmware updates.

Product Specifics

Number of Mix Effects Rows	**Crosspoint Label**	**Preview Transition**
2	6 rows 24 character LCD	2
Direct Cross Points	**On-Air indicator**	**Transition Rate Displays**
20	8	Via main menu
Shifted Cross Points	**Power Status Indicators**	**LCD Menu Displays**
40	None	2
Crosspoint Button Type	**DSK Transition Selectors**	**Menu Control**
Tri-Color LED	4 x Auto, Cut, Tie/Preview	2 x 20 buttons

Dedicated Macro Buttons	Source Select Bus	Numeric Keypad
2 x 20	2	1

Transport Control Buttons	Fader Bar
8	2

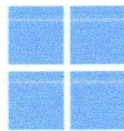| Destination Bus	3 Axis Joystick
2	1

Software

Software Applications
ATEM Software Control Panel.

Operating Systems

Mac 14.0 Sonoma,
Mac 15.0 Sequoia or later.

Windows 10 and 11.

Power Requirements

Input Voltage	Redundant Power	Power Usage
2 x Internal 100 - 240V AC.	Yes	100W

Physical Specifications

Environmental Specifications

Operating Temperature
0° to 40° C (32° to 104° F)

Storage Temperature
-20° to 60° C (-4° to 140° F)

Relative Humidity
Up to 95%

What's Included

ATEM 2 M/E Advanced Panel 20

Warranty

1 Year Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller

EU Declaration of Conformity (DoC)

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declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus Model/Product:	HyperDeck Studio HD Plus
Type:	Video Recorder
Batch:	N/A
Serial number:	Serial number greater than 56040

Object of the declaration (identification of apparatus allowing traceability; it may include a colour image of sufficient clarity where necessary for the identification of the apparatus):

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EMC Directive 2014/30/EU
Low Voltage Directive 2014/35/EU
RoHS Directive 2011/65/EU + (EU) 2015/863

The following harmonised standards and technical specifications have been applied:

Title, Date of standard/specification:

EN 55035	2017 + A11:2020
EN 55032	2015 + A11:2020
EN 63000	2018
EN 62368-1	2014 + AC:2015

Notified body (where applicable):	4 digit notified body number:
N.A.	N.A.

Additional information:
This product is supplied without a power cord

Signed for and on behalf of:

Blackmagic Design Pty Ltd	14/12/2021	Steve Brennan, Compliance Manager
Place of issue	Date of issue	Name, function, signature

HyperDeck Studio HD Plus

HyperDeck Studio HD Plus includes all the features of the Mini model, but is larger so it has more space for extra controls and extra connections. This model adds 6G-SDI so it can record and playback ProRes up to Ultra HD 30fps, and it includes an SDI loop out and HDR support. Plus the two 6G-SDI outputs allow fill and key playback up to 1080p60. There is also an HDMI input and a dedicated 3G-SDI monitoring output with overlays. Any button pushed on the front panel is sent to a dedicated RS-422 remote output and the DC power is now a broadcast style XLR connector. The front panel is also upgraded with better transport control buttons, a headphone socket and built in speaker.

Connections

SDI Video Inputs
1

SDI Video Outputs
2

SDI Monitor Outputs
1

SDI Rates
270Mb, 1.5G, 3G, 6G.

HDMI 2.0 Video Inputs
1

HDMI 2.0 Video Outputs
1

Built in Speaker
Mono

Audio Output
1 x 6.35 mm headphone jack.

Screen
2.2 inch LCD.

Timecode Connections
1 x BNC In, 1 x BNC Out.

Reference Connections
1 x BNC In, 1 x BNC Out.
Tri-Sync or Black Burst.

SDI Audio Inputs
16 channels embedded audio.

SDI Audio Outputs
16 channels embedded audio.

HDMI Audio Inputs
8 channels embedded audio.

HDMI Audio Outputs
8 channels embedded audio.

Remote Control
1 x RS-422 In, 1 x RS-422 Out.
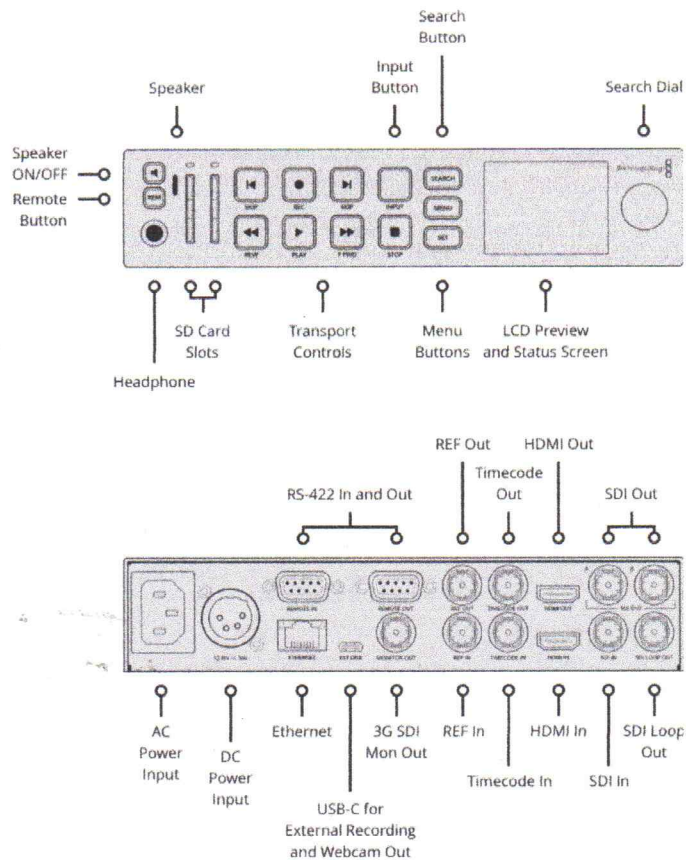
Recorder Configuration
Via user interface or Blackmagic HyperDeck Ethernet Protocol.

Ethernet
1Gb/s

Computer Interface
1 x USB Type-C 3.0 (up to 5Gb/s) for external drive recording, webcam out, software configuration and updates.

Search
Button

Input
Button

Speaker   Search Dial

Speaker
ON/OFF
Remote
Button

SD Card   Transport   Menu   LCD Preview
Slots   Controls   Buttons   and Status Screen

Headphone

REF Out   HDMI Out

Timecode
Out

RS-422 In and Out   SDI Out

AC   DC   Ethernet   3G SDI   REF In   HDMI In   SDI Loop
Power   Power   Mon Out   Out
Input   Input

                USB-C for   Timecode In   SDI In
                External Recording
                and Webcam Out

Standards

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

HD Video Standards
720p50, 720p59.94, 720p60
1080i50, 1080i59.94, 1080i60
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p50,
1080p59.94, 1080p60
1080PsF23.98, 1080PsF24,
1080PsF25, 1080PsF29.97, 1080PsF30

2K DCI Video Standards
2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI,
2Kp29.97 DCI, 2Kp30 DCI

Ultra HD Video Standards
2160p23.98, 2160p24, 2160p25,
2160p29.97, 2160p30

4K DCI Video Standards
4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI,
4Kp29.97 DCI, 4Kp30 DCI

SDI Compliance
SMPTE 259M, SMPTE 292M,
SMPTE 296M, SMPTE 424M,
SMPTE 425M level A and B,
SMPTE 2081-1, SMPTE 2081-10,
SMPTE 2084 and SMPTE 2108-1.

SDI Metadata Support
HD RP188 and closed captioning
CEA-708. HDR Metadata supported
on SDI.

Supported HDMI Formats
525i59.94 NTSC, 625i50 PAL,
720p50, 720p59.94, 720p60,
1080i50, 1080i59.94, 1080i60,
1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080p50,
1080p59.94, 1080p60,
2Kp23.98 DCI, 2Kp24 DCI, 2Kp25 DCI,
2Kp29.97 DCI, 2Kp30 DCI,
2160p23.98, 2160p24, 2160p25,
2160p29.97, 2160p30,
4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI,
4Kp29.97 DCI, 4Kp30 DCI

Audio Sampling
Television standard 24-bit, 48 kHz
sample rate.

Video Sampling
4:2:2 YUV

Color Precision
10-bit

Color Space

REC 601, REC 709, REC 2020. 33 point 3D LUTS can be applied to SDI monitor out.

HDR Support

Hybrid Log-Gamma, ST2084 300, ST2084 500, ST2084 800, ST2084 1000, ST2084 2000, ST2084 4000, ST2084

Multi Rate Support

Auto detection of SD, HD and 6G-SDI.

Copy Protection

HDMI input is unable to capture from copy protected HDMI sources. Always confirm copyright ownership before capture or distribution of content.

Media

Media

2 x SD card slots
1 x USB-C 3.0 expansion port for external recording of SD, HD, 2K DCI, Ultra HD and 4K DCI.
Please refer to either the Manual or the Information Note at www.blackmagicdesign.com/support for compatible media.

Media Type

UHS-I and UHS-II SD cards.

Media Format

Can format media to ExFAT (Windows/Mac) or HFS+ (Mac) file systems.

Supported Codecs

ProRes HQ QuickTime, ProRes 422 QuickTime, ProRes LT QuickTime, ProRes Proxy QuickTime for all formats up to 2160p30. Playback only of ProRes 4444 QuickTime up to 1080p60 with auto routing of fill and key over SDI A and B outputs. DNxHD 220x, DNxHD 220x MXF, DNxHD 145, DNxHD 145 MXF, DNxHD 45, DNxHD 45 MXF for 720p and 1080p HD formats up to 60fps. DNxHR HQX, DNxHR HQX MXF, DNxHR SQ, DNxHR SQ MXF, DNxHR LB, DNxHR LB MXF for 2K DCI and 2160p formats up to 30fps. H.264 SDI 4:2:2 10-bit, H.264 High 4:2:0 8-bit, H.264 Medium 4:2:0 8-bit, H.264 Low 4:2:0 8-bit for all formats up to 1080p60.

Control

Built in Control Panel

13 buttons for transport and device control with search dial and 2.2 inch color display.

External Control

RS-422 deck control, SDI start/stop, timecode run. Includes Blackmagic HyperDeck Ethernet Protocol. Supports remote FTP file upload.
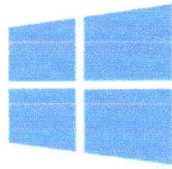
Software

Software Included

Blackmagic OS
Blackmagic HyperDeck Setup
Internal Software Upgrade
Loaded at system start, or via Blackmagic HyperDeck Setup using USB port.

Operating Systems

Mac 13.0 Ventura,
Mac 14.0 Sonoma or later.

Windows 10, 64-bit.

Displays

Built in 2.2 inch LCD for video, audio and timecode monitoring and menu settings.
LED indicator lights above the SD media slots.

Power Requirements

Power Supply
1 x Internal 100 - 240V AC 50/60Hz.
1 x 4 pin XLR 12V DC In for external
power supply or battery use.

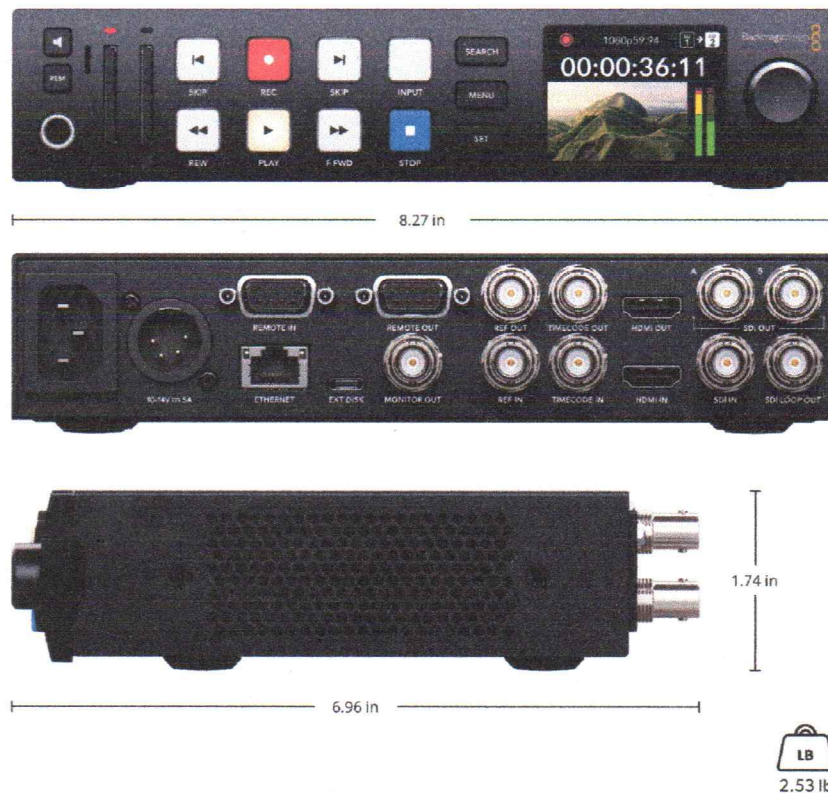**Power Usage**
100 W max.

Accessories

Optional Accessories
HyperDeck Extreme Control
Teranex Mini Rack Shelf

Physical Installation

Half rack unit width, 1 rack unit height.

Physical Specifications

8.27 in

1.74 in

6.96 in

LB
2.53 lb

Environmental Specifications

Operating Temperature	**Storage Temperature**	**Relative Humidity**
0° to 40° C (32°to 104° F)	-20° to 60° C (-4° to 140° F)	0% to 90% non-condensing

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What's Included

HyperDeck Studio HD Plus

Warranty

1 Year Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller

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EU Declaration of Conformity (DoC)

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declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus Model/Product:	ATEM 1 M/E Constellation HD
Type:	Video Switcher
Batch:	N/A
Serial number:	Serial number greater than 56040

Object of the declaration (identification of apparatus allowing traceability; it may include a colour image of sufficient clarity where necessary for the identification of the apparatus):

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RoHS Directive 2011/65/EU + (EU) 2015/863

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EN 55035	2017 + A11:2020
EN 55032	2015 + A11:2020
EN 63000	2018
EN 62368-1	2014 + AC:2015

Notified body (where applicable):	**4 digit notified body number:**
N.A.	N.A.

Additional information:

This product is supplied without a power cord

Signed for and on behalf of:

Blackmagic Design Pty Ltd	27/04/2022	Steve Brennan, Compliance Manager
Place of issue	Date of issue	Name, function, signature

Blackmagic design

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
8 Ch embedded audio on all
SDI inputs.

SDI Audio Outputs
16 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
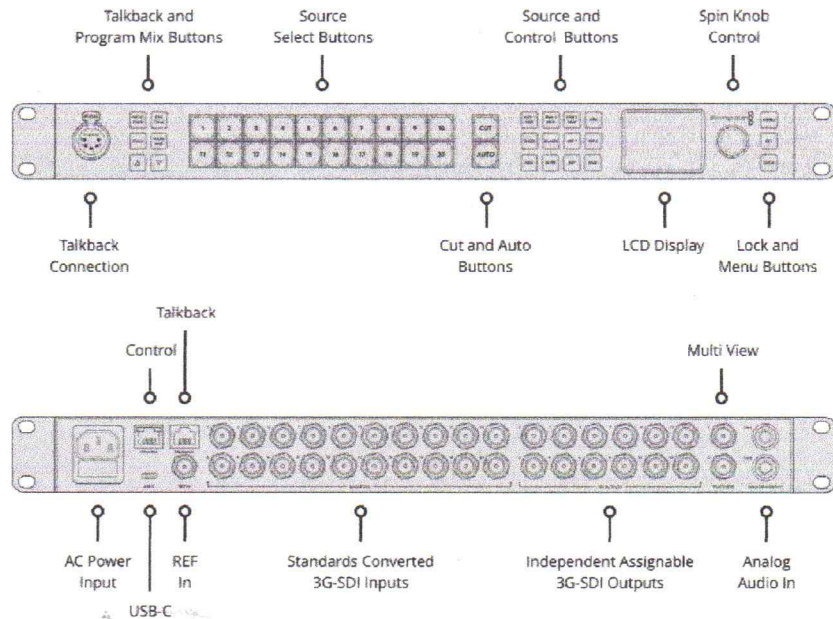RJ45 for 3rd party talkback systems.

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 2.0

Talkback and Program Mix Buttons · Source Select Buttons · Source and Control Buttons · Spin Knob Control

Talkback Connection · Cut and Auto Buttons · LCD Display · Lock and Menu Buttons

Talkback Control · Multi View

AC Power Input · REF In · USB-C · Standards Converted 3G-SDI Inputs · Independent Assignable 3G-SDI Outputs · Analog Audio In

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 Keyers
8

Downstream Keyers
2

Advanced Chroma Keyers
8

SuperSource
1

Talkback Support
Yes

Mix Minus Support
Yes

Linear/Luma Keyers
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
40

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 or
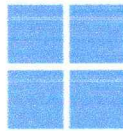Windows computers. Includes ATEM
Setup Utility.

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 14.0 Sonoma,
Mac 15.0 Sequoia or later.
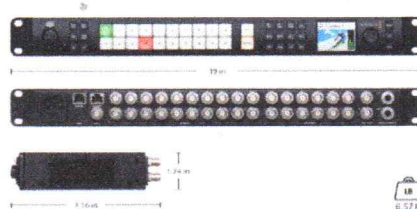
Windows 10 and 11.

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