

ATEM 4 M/E Constellation IP Plus



ATEM 4 M/E Constellation IP Plus is a much larger and more powerful live production switcher with lots of video inputs and outputs! It features a design that's fully SMPTE-2110 native with high-speed 100G Ethernet connections. Like the smaller model, all IP video connections are fully redundant and SMPTE-2022-7 compliant. You get an impressive 64 inputs and 52 outputs, 16 ATEM Advanced Keys, 4 multi-views and 2 SuperSource processors for a total of 12 DVEs. Perfect for large live productions!

\$14,295

Connections

100G 2110 IP Networks

16 x 100G QSFP28 connections. Supports ST 2022-7 redundant delivery of IP streams over two 2110 networks.

Senders and Receivers per 100G Pair
8 x Ultra HD

10G Control Network
2 x 10G RJ45 Ethernet for NMOS control plus loading media, saving and loading presets.

Reference Network
2 x RJ45 Ethernet for 2110 PTP clock.

1G Management
1 x RJ45 Ethernet. Supports 10/100/1000 BASE-T. For ATEM Setup utility and software updates.

Analog Audio Outputs
1 x 6.35 mm headphone jack.

Total Video Inputs
64

Total Video Outputs
52

Total Aux Outputs
48

Total Audio Outputs
1 x 6.35 mm headphone jack.
1 x Speaker

Frame Rate and Format Converters
On all 64 inputs

Extra Audio Outputs
1 x 6.35 mm headphone jack. (the audio will be the mix of PGM plus engineering, production and side tone.)
1 x built-in speaker.

SDI Program Outputs
Any of the 48 outputs.

SDI Preview Outputs
Any of the 48 outputs.

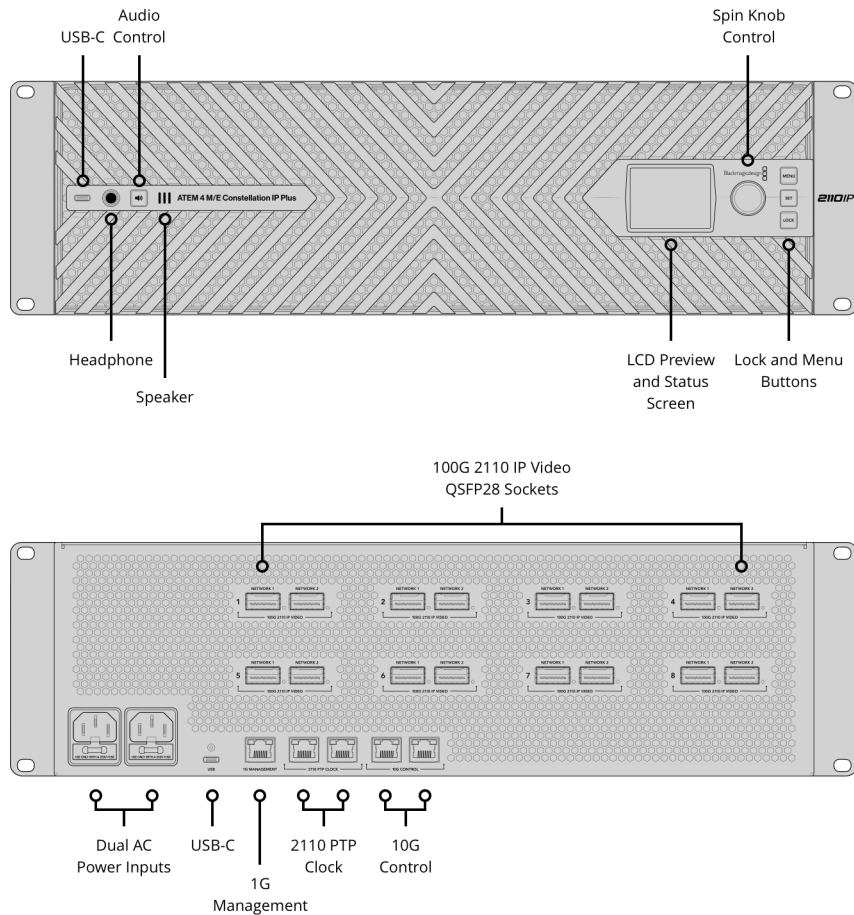
Webcam Output
Rear USB-C supports 720p or 1080p at PGM frame.

Control Panel Connection
2 x 10G RJ45 Ethernet for panel connection, NMOS control plus loading media, saving and loading presets.

Internal Timecode Generator
Yes

Computer Interface
Rear USB-C supports USB 3.0 for external USB audio (Fairlight Live), webcam out, ATEM Setup utility and software updates.
Front USB-C supports USB 2.0 for updates and setup only.

Power
2 x IEC C14 power inputs.



Standards

HD Video Standards

720p50, 720p59.94, 720p60
 1080i50, 1080i59.94, 1080i60
 1080p23.98, 1080p24, 1080p25,
 1080p29.97, 1080p30, 1080p47.95,
 1080p48, 1080p50, 1080p59.94,
 1080p60

Ultra HD Video Standards

2160p23.98, 2160p24, 2160p25,
 2160p29.97, 2160p30, 2160p50,
 2160p59.94, 2160p60.

SMPT E Compliance

SMPT E 2110-20, SMPT E 2110-21,
 SMPT E 2110-30, SMPT E 2110-40,
 SMPT E 2022-7

Video Sampling

4:2:2

Color Precision

10-bit.

IP Video Compliance

SMPT E 2110-20

(Uncompressed Video)

IGMP v2

SMPT E 2110-21 (Traffic Shaping)

Sender: Narrow

Receiver: Narrow, Wide Synchronous,
 Asynchronous

SMPT E 2110-30 (PCM)

Audio Conformance level: Level C

SMPT E 2110-40 (Ancillary Data)

Full access to entire SMPT E ancillary
 data stream. Includes RP 188/SMPT E
 12M-2, closed captioning and HDR
 static metadata.

Codec Blackmagic IP10 codec optional for 2160p59.94 and 2160p60 as 2110 IP video.	NMOS IS-04 Discovery and Registration v1.3.2 Peer-to-peer via mDNS/DNS-SD	NMOS BCP-002-01 Natural Grouping NMOS BCP-004-01 Receiver capabilities
Precision Time Protocol IEEE 1588-2008 (PTP v2) ST 2059-1 ST 2059-2	NMOS IS-05 Connection Management v1.1.2	

Product Specifics

Upstream Keyers 16	Linear/Luma Keyers 20	Control 2 x 10G RJ45 Ethernet for panel connection, NMOS control plus loading media, saving and loading presets.
Downstream Keyers 4	Transition Keyer (Stinger/DVE) 4 Stinger, 4 DVE.	
Advanced Chroma Keyers 16	Total Number of Layers 28	Routable Windows 64
SuperSource 2	Pattern Generators 21	Tally Red for program and green for preview indication.
Talkback Support Yes	Color Generators 2	Windows Source Labels Yes
Mix Minus Support Yes	DVEs 4	

Multi View Monitoring

Multi View Monitoring 4 x 16 Multiview pattern options for up to 64 total views.	Multi View Video Standard Select HD or Ultra HD.
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Media Player

Media Players 4	Media Player Clip Length in 720 HD 3200 frames	Media Pool Video File Format TGA Sequence.
Channels Fill and key for each media player.	Media Player Clip Length in 1080 HD 1600 frames	Media Pool Audio File Format WAV, MP3 and AIFF.
Media Pool Still Image Capacity 64	Media Player Clip Length in Ultra HD 400 frames	
Media Pool Clip Capacity 4	Media Pool Still Image Format PNG, TGA, BMP, GIF, JPEG and TIFF.	

Display

Interface

Minimum monitor resolution of 1366 x 768.

Front panel

Built in HD LCD monitor for video, front USB-C connection for updates, setup and control, front speaker and headphone connection, menu control knob and set button, front panel lock button.

Processing

Processing Delay

TBC

Video.

Level and Peak metering.

Down Conversion

None

Audio Mixer

132 Channel mixer.

Master gain control.

6 band parametric EQ, Dynamics including Expander, Gate, Compressor and Limiter.

Selectable On/Off/Audio-Follow-

Software

Control Panel Included

ATEM Software Control Panel included free for macOS 14.0 Sonoma, macOS 15.0 Sequoia or later and Windows 10 and 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-C to chassis.

Operating Systems



Mac 15.0 Sequoia,
Mac 26.0 Tahoe or later.



Windows 10 and 11.
Windows 11 for ARM

Power Requirements

Power Supply

2 x 100 - 240V AC 50/60Hz internal power supplies.

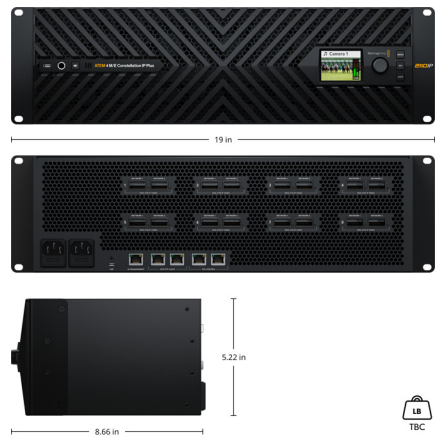
Power Inputs

2 x IEC C14 sockets.

Power Usage

TBC

Physical Specifications



Physical Installation

Physical Installation

3 rack units.

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

ATEM 4 M/E Constellation IP Plus

Welcome wallet with QR code for software download

Warranty

1 Year Limited Manufacturer's Warranty.

Blackmagic Design Authorized Reseller