Blackmagic Design BMD-SWATEMSCN2/1ME2/HD 2 M/E ATEM Constellation HD Production Switcher

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 2.0

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

- 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

- 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 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 R**equirements**

Power Supply

- 1 x Internal 100 - 240 AC.

Power Usage

- 52W

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