

ATEM Switchers FAQ

Will all the switchers be able to run with software only?

Yes! All of the switchers will include a software control panel.

Is there a way to record multiple streams of h.264 from the Television Studio or is it locked to program out?

The Television Studio will allow for H.264 encoding via the USB 2.0 port. The recorded stream is fixed to program out. There are 3 program out ports – 2 x SDI and 1 x HDMI plus multiview outputs. With the addition of an H.264 Pro Recorder, and a second computer, additional H.264 streams could be recorded at varying resolutions.

What are the bitrates, specs etc of the h.264 capture from the Television Studio?

The Television Studio uses the same technology as the h.264 Pro. Maximum 20 Mbps. Hardware based real time H.264 encoding supports multiple profiles for small, portable video devices through to full resolution HDTV.

How would I encode directly to H.264 on the ATEM 1 M/E or ATEM 2 M/E?

Simply add a Blackmagic Design H.264 Pro-Recorder to the SDI output feed. In most cases the PC/Mac running the ATEM control software will also be able to simultaneously run the H.264 (Media Express) software at the same time.

What are the minimum computer system requirements to run the ATEM control software?

There is no processing done on the computer so the minimum requirements are fairly simple. The main requirement is that the screen be able to handle a resolution of 1440x900.

Which models have the UltraScope built-in?

Both the ATEM 1 and ATEM 2 M/E Production Switchers have a USB 3 port (Aux 1) for connection to a Windows PC. If you need high quality waveform monitoring, then ATEM also includes Blackmagic Design UltraScope software so you can use the USB connection for incredible PC based scopes!

Is it possible to capture program out or clean feeds of uncompressed video?

Both the ATEM 1 and ATEM 2 M/E Production Switchers have a USB 3 port (Aux 1) for connection to a Windows PC. ATEM includes the Media Express software for easy capture to AVI or DPX files. 10-bit captures in full HD resolution allow for a direct file based master of your production.

How many channels of audio are accepted via the SDI inputs?

The audio embedded in the SDI signal on input is **stripped** out.

All audio must come through the separate audio inputs. The Audio connectors are used to embed 2 channels (left and right) into the program stream. The audio will be embedded in SDI, USB 3.0 and HDMI.

Can the Television Studio playback videos from your PC?

No. The Television Studio supports stills playback only. Playback of pre-recorded content can be incorporated via any Video source or with the addition of either the HyperDeck Shuttle and/or Studio.

What is the output frame delay on the ATEM units?

In HD:

Genlocked signal = 1 line

Frame synch = +1 frame

Multiviewer = +1 frame

Downconverter = +1 frame

DVE, content in the DVE will be +1 frame.

They are the same on all the switchers.

In SD:

Genlocked = 1 frame

Frame sync = +2 frames

Multiview = +2 frames

DVE = + 1 Frame

They are the same on all the switchers.

Are there TBC's on the HDMI inputs or how does that work?

Yes. There is a Frame Synchronizer on every input so the frame synch does the same thing that a TBC would do.

Can you pair the ATEM 1 M/E Panel with an ATEM 2 switcher?

Yes you can use the 1 M/E panel with the 2 M/E switcher frame.

How many PIP'S does each unit support?

ATEM 1 M/E = 1 pip (available in the upstream keyers as a DVE)

ATEM 2 M/E = 5 pips ([SuperSource](#)* lets you do up to 4 boxes, plus 1 in the upstream keyer as a DVE)

ATEM Television Studio = NONE, there is no DVE in the Television Studio

*SuperSource feature is not yet available on ATEM 2 M/E Switcher. Planned firmware update to add this functionality coming soon.

Does the ATEM support 3G?

No. The ATEM models support a maximum resolution of 1080i.

The ATEM Television Studio has an AES/EBU audio input. How do I get analogue audio into the switcher?

An analogue to digital converter is required. A cost effective solution is the [Behringer ULTRAMATCH PRO SRC2496](#) (approx \$200 AUD). You will also require an RCA male to BNC male cable.

An alternative is to use the Audio to SDI mini converter from Blackmagic Design. Input your audio from a mixer into the mini converter and input the program out SDI from the ATEM into the mini converter.

The resulting output will be an SDI signal with embedded audio. In this scenario the ATEM Television Studio will need to be genlocked for minimal delay.

How can I fix audio and video sync issues with the ATEM Television Studio?

Similar to the Behringer ULTRAMATCH PRO SRC2496, the next model up is the [Behringer ULTRACURVE PRO DEQ2496](#). This model has the same analogue to digital features as the SRC2496, as well as digital delay. This will allow you to delay the audio up to 300ms (which is 7.5 frames @ 25fps). It is available from many music and AV stores for approx \$400 AUD.

Why do my H.264 recordings from the ATEM Television Studio have audio drift issues when playing back in some programs, yet playback fine in Media Express?

An issue with H.264 recordings from the ATEM Television Studio was introduced in ATEM 3.0 Software. Please revert back to ATEM Software 2.8 via the “archived drivers” section on the ATEM support page.

<http://www.blackmagic-design.com/support/>

Detailed comparison specs can be found here:

<http://www.blackmagic-design.com/products/atem/techspecs/>

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