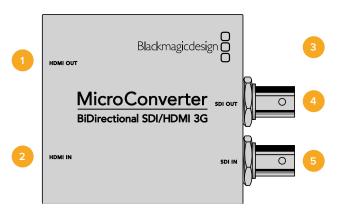
# Micro Converter BiDirectional SDI/HDMI 3G

Micro Converter BiDirectional SDI/HDMI 3G lets you convert HDMI to SDI and back again while maintaining tally and camera control in both signal formats. This means you can now connect a Blackmagic Pocket Cinema Camera 4K or 6K to any SDI ATEM switcher, or an URSA Broadcast camera to an ATEM Mini, all while maintaining camera control and tally.

If you have only one input connected, the SDI and HDMI outputs both become loop outputs so you can feed the input signal to other HDMI and SDI equipment, for example a SmartView monitor.

Your Micro Converter BiDirectional SDI/HDMI 3G automatically detects the SD/HD/3G-SDI input format and sets the output format to match.

This tiny broadcast quality converter is powered over USB, meaning you can power the unit from your laptop or television's USB connector using a common USB-C cable. USB-C cables are used to connect some cell phones to chargers and laptops, so if you have one of these, you can use the same cable. If the USB connector on your cable is a different type, the correct cable can be purchased from most electronic equipment stores.



## Connectors

### 1 HDMI OUT

HDMI type A video output.

#### 2 HDMI IN

HDMI Type A video input. The small 'lock' LED next to the HDMI IN connector will illuminate when a valid HDMI input is detected.

### 3 USB-C / POWER

Connect 5V power using a standard USB to USB-C cable. Also connects to Blackmagic Converters Setup software via your Mac OS or Windows Computer. A small white LED light next to the USB-C port will light up when connected to a power source.

#### 4 SDI OUT

SDI video output BNC connector.

## 5 SDI IN

SDI video input BNC connector. The small 'lock' LED next to the SDI IN will illuminate when a valid SDI input is detected.

# **Blackmagic Converters Setup Settings**

The Blackmagic Converters Setup utility can be used to change settings and update your Micro Converter's software.

The 'setup' tab contains the unit name and software version along with SDI Camera Control and SDI Output options.



The Setup options for Micro Converter BiDirectional SDI/HDMI 3G.

### **SDI Camera Control**

To ensure CCU and tally data from the ATEM switcher is sent to the correct camera the 'ATEM Camera ID' number should be set to match the ATEM's input number.

### **SDI Output**

The '3G Output' setting lets you select between Level A or Level B 3G-SDI. This changes the 3G-SDI output standard to maintain compatibility with equipment that can receive only level A or level B 3G-SDI video. The default setting is Level B.

#### Reset

You can also reset your converter to factory settings by clicking the 'factory reset' option.

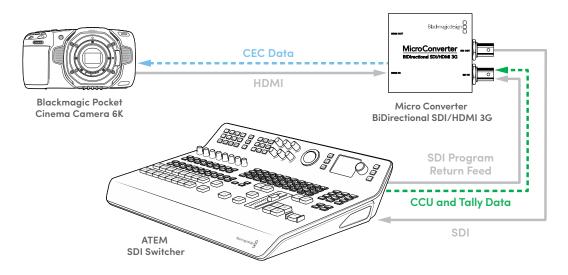
# Camera Control and Tally between SDI and HDMI

Micro Converter BiDirectional SDI/HDMI 3G supports tally and camera control data when connected to ATEM switchers and Blackmagic cameras. This section shows examples of the different types of workflows you can use.

#### **Example workflow 1**

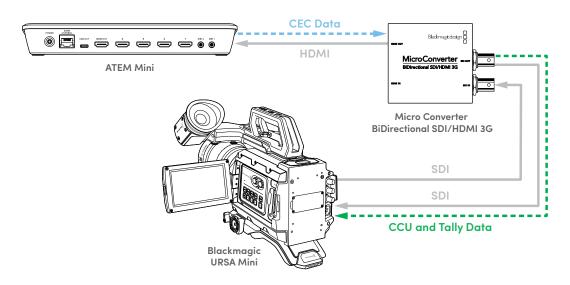
In this scenario, the micro converter is used to connect the camera's HDMI output to the ATEM's SDI input. The bidirectional converter allows the camera control and tally data to be fed back through the converter and into the camera via the Consumer Electronics Control CEC data in the HDMI signal.

The Micro Converter's HDMI output can be used for remote monitoring.



## Example workflow 2

Here the converter is used to connect the camera's SDI output to an ATEM Mini's HDMI input. The SDI signal from the camera is converted to HDMI and sent to the ATEM Mini. CEC data is returned to the Micro Converter and converted to CCU and tally data, then sent back to the camera over SDI.



**NOTE** The micro converter's HDMI output will automatically detect if video is present on the SDI input. If no video is detected the HDMI output will become a loop out of the HDMI input and can be used for remote monitoring.

Additionally, any video and audio connected to the converter's HDMI input will be transmitted on the SDI output.

# Micro Converter BiDirectional SDI/HDMI 3G Block Diagram

