

BLUEFISH444 HD-SDI SUPPORT



BLUEFISH444 AVID QUICK START

5.13.2



Avid Certified

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 AVID User guide

Introduction

Bluefish444 'The Professionals choice' has partnered with AVID to bring true uncompressed 12-bit HD-SDI IO to users of AVID Media Composer 6.x, AVID Symphony 6.x, and AVID News Cutter 10.x onward. Bluefish444 SDI output is also supported from AVID Pro Tools 11 allowing Professional SDI video & audio preview directly from your AVID Pro Tools system.

Bluefish444 has been the choice of professionals requiring the highest quality HD-SDI input and output solutions. Supporting 4:2:2 YUV, 4:4:4 RGB, 3D, and 4K HD-SDI, with 12-bit video processing and the most accurate hardware scalers available in the market today.

Bluefish444 have a long history of providing OEM solutions to industry leading developers requiring high quality IO solutions capable of performing day in day out all year around. The Create range of hardware caters to video professionals that require tried and tested reliability combined with the true uncompressed input and output solutions. Supporting SD/HD/2K/4K capture & playback, 12-bit video processing combined with hardware scaling and a quality HDMI video preview. Create cards ship with a world class DI tool, Bluefish444's own Symmetry application. The Create range will provide an IO solution for the most demanding video professional's requirements.

AVID certified Bluefish444 hardware

Create 3D Ultra	Epoch 4K Neutron	Epoch 4K Neutron Turbo
Create 3D	Epoch 4K Supernova S+	Epoch 4K Supernova S+ Turbo
Create HD	Epoch 4K Supernova	Epoch 4K Supernova
Epoch Neutron		

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Support and Downloads

Bluefish444 have a dedicated page for AVID users to find information on support, driver downloads, user documentation, Bluefish444 and AVID workflows

<http://www.bluefish444.com/avid/>

Installation guide

Bluefish444 has now included the AVID certified OPEN IO Plug-in via our driver installation package enabling support for Media Composer 6 onwards, and Avid Pro Tools 11 onwards.

For the latest installer please refer to the Bluefish444 website

<http://www.bluefish444.com/avid/>

Included in this installer package:

- Bluefish444 Driver
- Firmware updater
- Bluefish444 feature application
- ASIO audio drivers
- 3rd party application Plug-ins
- RS422 port to virtual Serial port driver
- Symmetry Software

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	4:2:2 YUV 8-bit	4:2:2 YUV 10-bit	4:4:4 RGB 8-bit	4:4:4 RGB 10-bit
SD(625/525) @25, 29.97fps	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron
HD 720P @23, 25, 50, 59, 60fps	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron		
HD 1080i @25, 29, 30fps	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron
HD1080PsF @23, 24, 25, 29, 30 fps	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron
HD 1080P @23, 24, 25, 29, 30fps	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron
HD 1080P @48, 50, 59, 60fps	4K Supernova 4K Neutron	4K Supernova 4K Neutron		
2Kx1080P/PsF @23, 24, 25, 29, 30fps	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron Neutron	4K Supernova 4K Neutron	4K Supernova 4K Neutron
2Kx1080P @48, 50, 59, 60fps	4K Supernova 4K Neutron	4K Supernova 4K Neutron		
UHD & 4K P @23, 24, 25fps	4K Supernova 4K Neutron	4K Supernova 4K Neutron	4K Supernova 4K Neutron Turbo	4K Supernova Turbo 4K Neutron Turbo
UHD & 4K P @ 29, 30fps	4K Supernova 4K Neutron	4K Supernova 4K Neutron	2 x 4K Supernova 4K Neutron Turbo	4K Supernova Turbo 4K Neutron Turbo
UHD & 4K P @ 48, 50, 59, 60fps	4K Supernova Turbo 4K Neutron Turbo	4K Supernova Turbo 4K Neutron Turbo		

Table 1a

The above table show the available video modes with Bluefish444 video hardware

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Steps to install Bluefish444 driver package for use with AVID software

1. Install AVID software and 3rd party applications as required.
2. Physically install the Bluefish444 HD-SDI IO hardware in the recommended PCI express slot refer to the hardware user manual for details on physical card installation. The Bluefish444 user manual can be downloaded from the Manual section of the Bluefish444 website.
<http://www.bluefish444.com/support/downloads/>
3. Download, save, and run the current bluefish444 retail installer package, available at the download section of the Bluefish444 website.
<http://www.bluefish444.com/support/downloads/>
4. The Bluefish444 installer package may request that you update your hardware to the latest firmware. Bluefish444 recommend running the firmware included in the latest installer for use with all 3rd party applications.

Your Bluefish444 hardware should now be installed and ready for use with supported AVID software products.

*If the appropriate Plug-ins for your application has not been installed for any reason, or if any application does not detect the Bluefish444 hardware. Please uninstall the driver package through the Windows Control Panel > Uninstall. Restart the workstation and run the install package again.

For additional support when using Bluefish444 hardware with AVID software packages refer to the last page of this document for a localised support contact.

Using Bluefish444 hardware with AVID Media Composer software

Bluefish444 have developed an Open IO plug-in compatible with Media Composer 6.x, Symphony 6.x, and News Cutter 10.x and onwards.

The Open IO Plug-in exists only once for all AVID supported applications, and enables similar functionality across applications. This document shows how to configure and use Bluefish444 hardware within AVID applications and is demonstrated with Media Composer v6.5.

On starting AVID Media Composer, or supported AVID application, the Bluefish444 control panel should be accessed in order to set up the Bluefish444 hardware for the specific user environment.

The Bluefish444 control panel can be accessed from the following sections of Media Composer:

- **Tools > Hardware Setup.**
- **Main BIN > Settings > Video Input or Video Output**
- **Main BIN > Settings > Audio Project > Hardware > Control panel symbol**
- **Tools > Capture Tool > Control panel symbol**



*If the Bluefish444 Control panel is not available through the above options, confirm that the Bluefish444 control panel has been installed (c:\Program Files\Bluefish444\BlueFishControlPanel.exe). If required follow the installation instructions above to correctly install the Bluefish444 installer package.

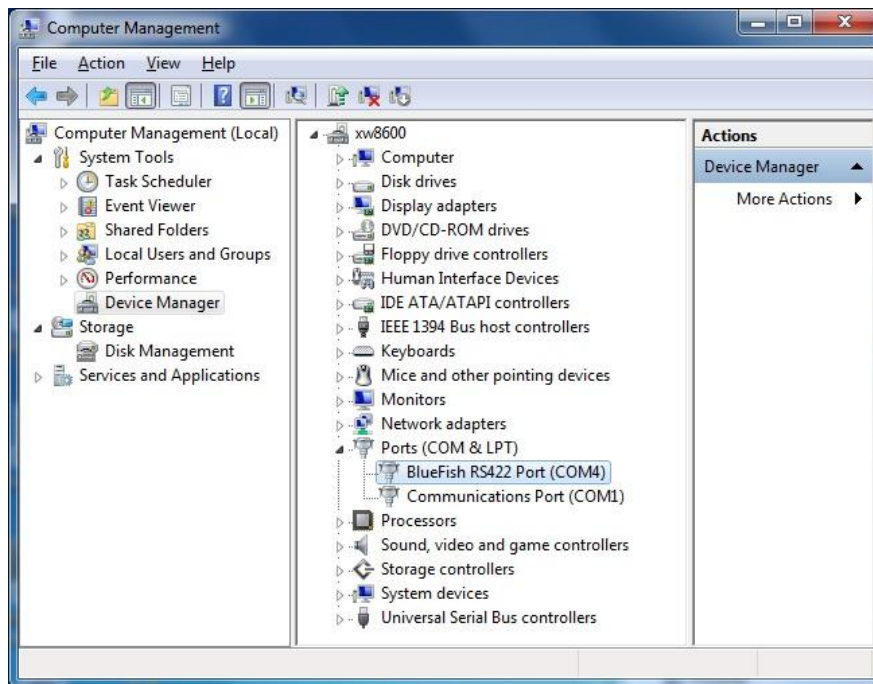
BLUEFISH444 HD-SDI SUPPORT

Machine Control configurations

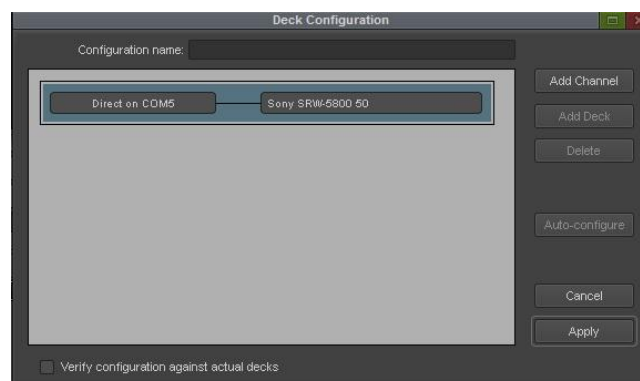
Media Composer allows Video Recorders to be controlled via RS422. On Windows the Bluefish444 RS422 port is assigned as a COM port by the Bluefish444 driver so that Avid Media Composer can access it. On MAC OSX a third part USB to RS422 adapter is required.

To correctly identify the Bluefish444 RS422 port, go to **Computer Management** and select **Device Manager**. Select ports (COM & LPT) and find the corresponding Bluefish444 RS422 port where you will find the COM port number enclosed in brackets.

See reference image below:

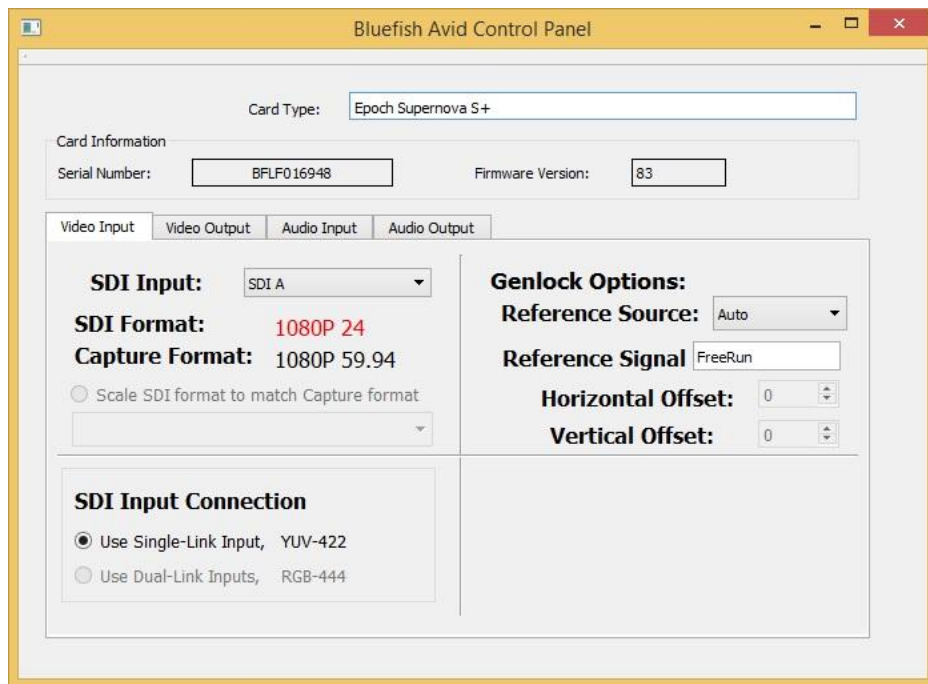


You can assign the Bluefish444 RS422 port by selecting **Deck Configuration** within AVID **Settings** then choose the appropriate serial (COM) port that has been mapped to the Bluefish444 RS422 port.

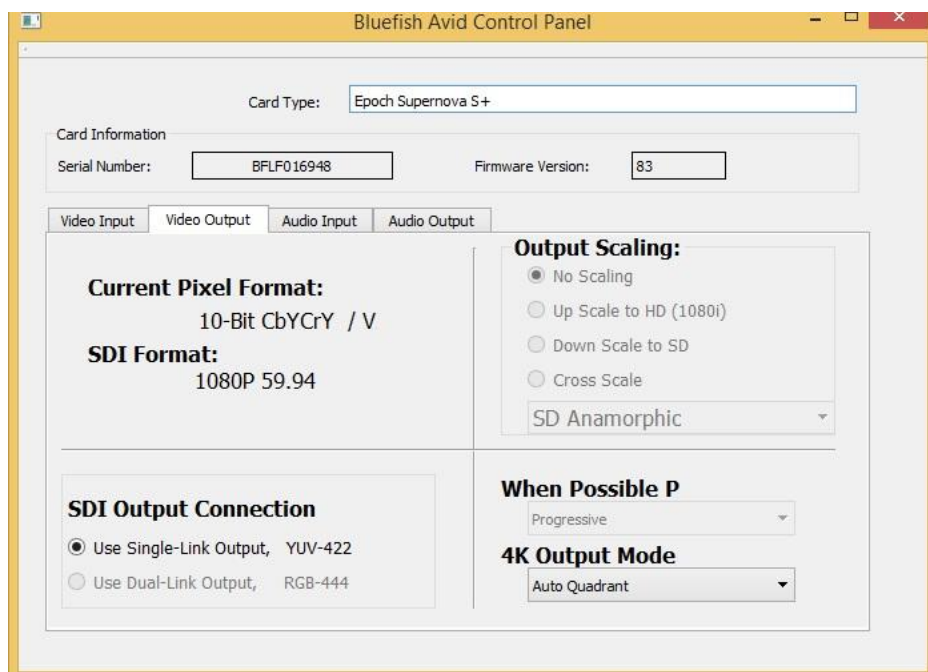


BLUEFISH444 HD-SDI SUPPORT

Bluefish444 AVID Control Panel settings:



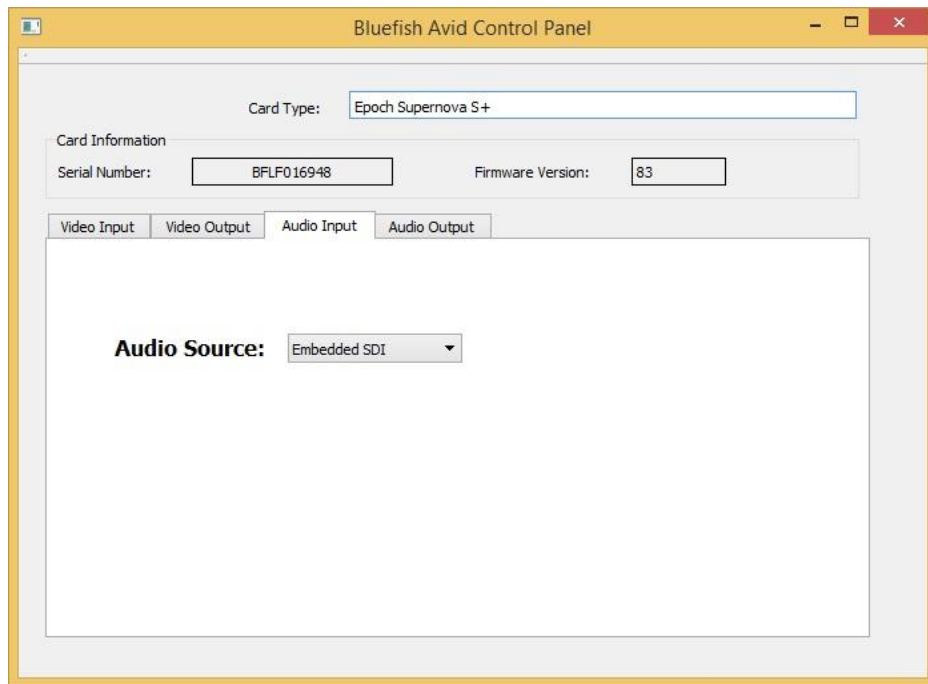
Video Input Shows the current input signal, resolution scaling options, SDI input A/B selection, reference source and type, and the colour space conversion options



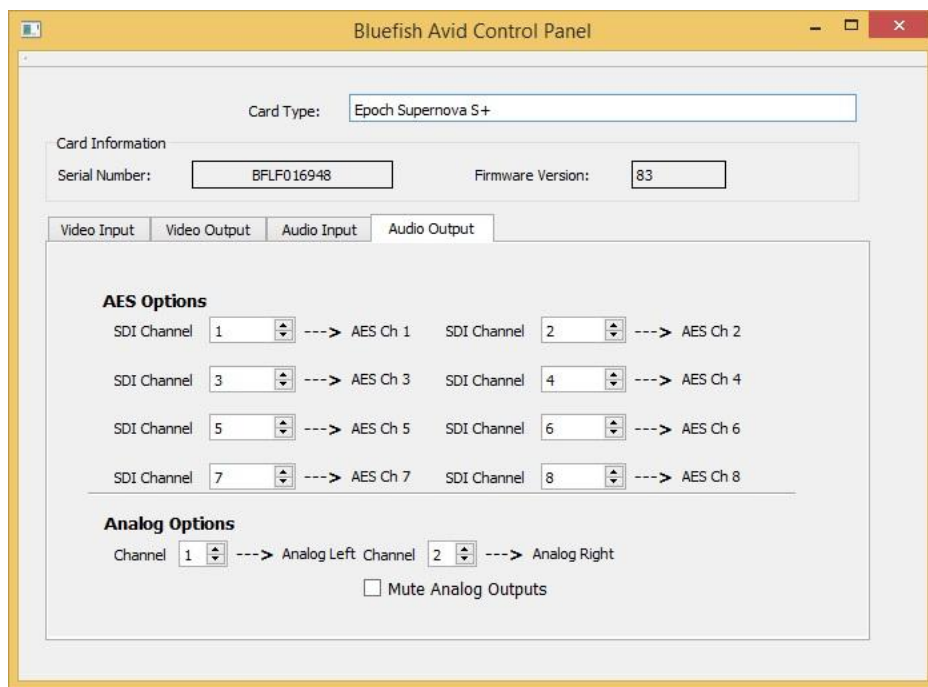
Video Output Shows the current output video mode and pixel format, the preferred progressive HD-SDI transport (P / PsF), the colour space conversion, the video output conversion between SD and HD video, and the 4K Output Mode (2SI, or Auto Quadrant)

*Note that 2SI is required to monitor 4K HDMI signals

BLUEFISH444 HD-SDI SUPPORT



Audio Input Show the selected audio source (AES/SDI embedded)



Audio Output Show the current AES audio mapping (outputs 1 to 8), and the analog audio mapping (outputs 1 and 2)

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 in the Timeline

While working in the AVID Media Composer timeline you are able to adjust the quality that both Media Composer and the configured Bluefish444 hardware are working in.



The Media Composer Timeline quality settings can be changed through this dialogue

Media Composer makes the following quality options available:



Draft Quality setting is used to allow more real time functionality within AVID Media Composer. This is achieved through the processing of only $\frac{1}{4}$ of each video frame. When draft quality is selected Bluefish444's unique hardware scaling technology will take effect, scaling the $\frac{1}{4}$ resolution frames into the full resolution frames of the current project size.

*Bluefish444 hardware scaling is required for this option.



Full Quality setting makes Media Composer render each frame in 8bit video, irrelevant of the source footage bit depth. Bluefish444 hardware will read the 8bit video frames then process the frames in the 12bit video pipeline.



Full Quality 10bit setting makes Media Composer render each frame in full 10bit video, irrelevant of the source footages bit depth. Bluefish444 hardware will read the 10bit video frames then process the frames in the 12bit video pipeline.

Media Composer Multi-cam sequences:

Bluefish444 hardware scaling technology allows users to take advantage of Avid Media Composers powerful Multi-cam editing mode.

While working in Multi-cam mode the Media Composer sequence will always be in Draft Quality, using the Bluefish444 Hardware scalers to return the $\frac{1}{4}$ resolution image to the projects native resolution.



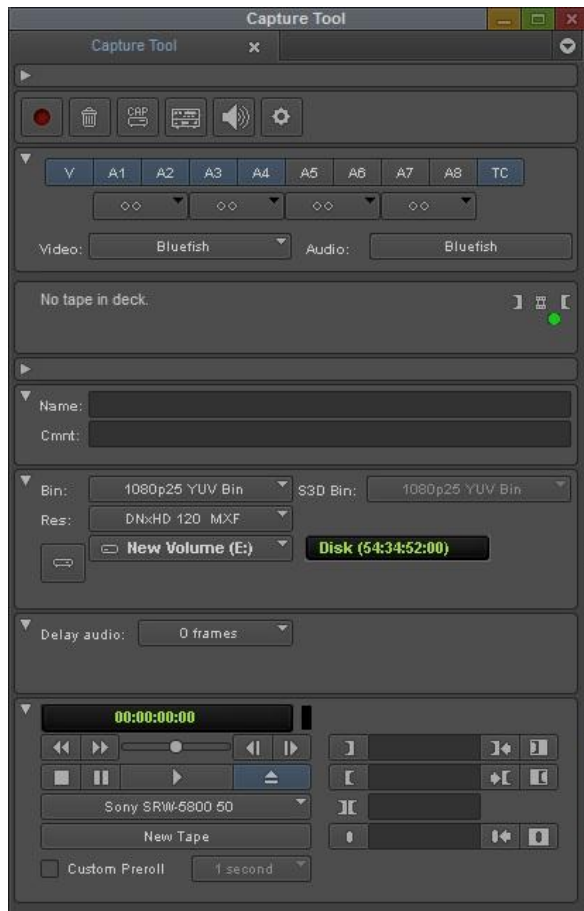
Draft Quality setting is used to allow more real time functionality within AVID Media Composer. This is achieved through the processing of only $\frac{1}{4}$ of each video frame. When draft quality is selected Bluefish444's unique hardware scaling technology will take effect, scaling the $\frac{1}{4}$ resolution frames into the full resolution frames of the current project size.

*Bluefish444 hardware scaling is required for this option.

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Capturing video with Bluefish444 hardware

Bluefish444 hardware can be configured to capture material directly into AVID software packages utilising all the available AVID video CODECS. After configuring the SDI input in the Bluefish444 control panel and feeding the Bluefish444 hardware with a valid SDI signal the capture tool should be opened from the **Tools** menu(Ctrl+7).



Select Bluefish as the Video and Audio source.

Enable the desired Video and Audio channels to be captured, and select the video format to be captured.

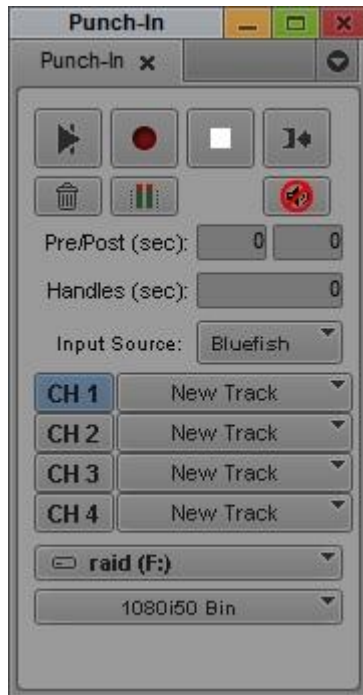
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AVID Audio Punch In

Bluefish444 hardware is able to support Audio Punch In allowing playback of video and audio from the AVID timeline while capturing an audio source simultaneously. Bluefish444 hardware supports the Input of SDI embedded audio and AES audio for capture and audio punch in.

**Note that in order to capture AES audio a valid SDI signal must be present, house Black or Colour Bars will suffice.*

The Audio Punch In tool can be opened from the **Tools** menu.



Select Bluefish as the Input Source, the SDI/AES Audio source is set by the Audio Input Tab within the Bluefish Control Panel.

BLUEFISH444 HD-SDI SUPPORT

Using Bluefish444 hardware with AVID Pro Tools

Bluefish444 have developed an Open IO plug-in compatible with AVID Pro Tools 11 onwards. The Open IO Plug-in exists only once for all AVID supported applications, and enables similar functionality across applications. This document shows how to configure and use Bluefish444 hardware within AVID applications and is demonstrated with AVID Pro Tools 11.

On starting AVID Pro Tools the Bluefish444 control panel should be accessed in order to set up the Bluefish444 hardware for the specific user environment.

The Bluefish444 control panel can be accessed from the Video Track I/O section of Pro Tools.

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch|4K Supernova connectors

Connector	Quad In	Quad Out	2 In 2 Out
1	Input A	Output A	Output A
2	Input B	Output B	Input A
3	Input C	Output C	Output B
4	Input D	Output D	Input B
5	NA	Genlock	Genlock



Epoch 4K supernova supports many video modes, signal types and frame rates.

To understand the capabilities of the hardware and each 3G HDSDI connector please refer to Table 1b.

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch | 4K Supernova card setup (Quad Out)

AVID Media Composer supports Epoch | 4K Supernova supporting up to 4K 30fps via Quad Link 1.5G SDI

AVID Media Composer supports Epoch | 4K Supernova Turbo up to 4K 60fps via Quad Link 3G SDI Level A/B

SDI connector card 1					SDI connector Card 2			
Video Mode	SDI 1	SDI 2	SDI 3	SDI 4	SDI 1	SDI 2	SDI 3	SDI 4
4K Supernova								
SD	270M							
HD/2K YUV 1.5G	1.5G							
HD/2K YUV 3G	3G Level A/B							
HD/2K RGB 1.5G	1.5G Link A	1.5G Link B						
HD/2K RGB 3G	3G Level A/B							
4K YUV 1.5G	1.5G quad 1	1.5G quad 2	1.5G quad 3	1.5G quad 4				
4K Supernova Turbo								
SD	270M							
HD/2K YUV 1.5G	1.5G							
HD/2K YUV 3G	3G Level A/B							
HD/2K RGB 1.5G	1.5G Link A	1.5G Link B						
HD/2K RGB 3G	3G Level A/B							
4K YUV 1.5G	1.5G quad 1		1.5G quad 2		1.5G quad 3		1.5G quad 4	
4K RGB 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	
4K YUV 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch | 4K Supernova card setup (2 In 2 Out)

AVID Media Composer supports Epoch | 4K Supernova supporting up to 4K 30fps via Quad Link 1.5G SDI

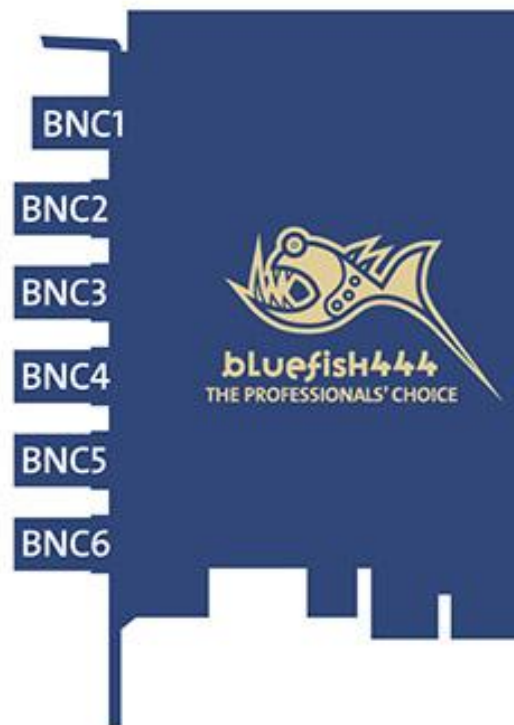
AVID Media Composer supports Epoch | 4K Supernova Turbo up to 4K 60fps via Quad Link 3G SDI Level A/B

SDI connector card 1					SDI connector Card 2			
Video Mode	SDI 1	SDI 2	SDI 3	SDI 4	SDI 1	SDI 2	SDI 3	SDI 4
4K Supernova								
SD	270M	270M Input A		270M Input B				
HD/2K YUV 1.5G	1.5G	1.5G Input A		1.5G Input B				
HD/2K YUV 3G	3G Level A/B	3G Input A		3G Input B				
HD/2K RGB 1.5G	1.5G Link A		1.5G Link B					
HD/2K RGB 3G	3G Level A/B	3G Input A		3G Input B				
4K Supernova Turbo								
SD	270M	270M Input A		270M Input B				
HD/2K YUV 1.5G	1.5G	1.5G Input A		1.5G Input B				
HD/2K YUV 3G	3G Level A/B	3G Input A		3G Input B				
HD/2K RGB 1.5G	1.5G Link A		1.5G Link B					
HD/2K RGB 3G	3G Level A/B	3G Input A		3G Input B				
4K YUV 1.5G	1.5G quad 1		1.5G quad 2		1.5G quad 3		1.5G quad 4	
4K RGB 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	
4K YUV 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch | 4K Supernova S+ connectors

Connector	Quad In	Quad Out	2 In 2 Out
1	NA	Copy A / BF Lock Out	Copy A / BF Lock Out
2	Input A	Output A	Output A
3	Input B	Output B	Input A
4	Input C	Output C	Output B
5	Input D	Output D	Input B
6	NA	Genlock	Genlock



Epoch | 4K Supernova S+ supports many video modes, signal types and frame rates.

To understand the capabilities of the hardware and each 3G HD-SDI connector please refer to Table 1b.

Epoch | 4K Supernova S+ Supports BF Lock generation on BNC 1. When Configuring 4K Modes with Epoch | 4K Supernova S+ Turbo BF Lock will be enabled on BNC 1 and should be connected to the Genlock input, BNC 6, of the second bluefish444 card. This will allow card synchronisation for Quad Link across two cards.

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch | 4K Supernova S+ card setup (Quad Out)

AVID Media Composer supports Epoch | 4K Supernova S+ up to 4K 30fps via Quad Link 1.5G SDI

AVID Media Composer supports Epoch | 4K Supernova S+ Turbo up to 4K 60fps via Quad Link 3G SDI Level A/B

SDI connector card 1					SDI connector Card 2			
Video Mode	SDI 2	SDI 3	SDI 4	SDI 5	SDI 2	SDI 3	SDI 4	SDI 5
4K Supernova S+								
SD	270M							
HD/2K YUV 1.5G	1.5G							
HD/2K YUV 3G	3G Level A/B							
HD/2K RGB 1.5G	1.5G Link A	1.5G Link B						
HD/2K RGB 3G	3G Level A/B							
4K YUV 1.5G	1.5G quad 1	1.5G quad 2	1.5G quad 3	1.5G quad 4				
4K Supernova S+ Turbo								
SD	270M							
HD/2K YUV 1.5G	1.5G							
HD/2K YUV 3G	3G Level A/B							
HD/2K RGB 1.5G	1.5G Link A	1.5G Link B						
HD/2K RGB 3G	3G Level A/B							
4K YUV 1.5G	1.5G quad 1		1.5G quad 2		1.5G quad 3		1.5G quad 4	
4K RGB 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	
4K YUV 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch | 4K Supernova S+ card setup (2 In 2 Out)

AVID Media Composer supports Epoch | 4K Supernova S+ up to 4K 30fps via Quad Link 1.5G SDI

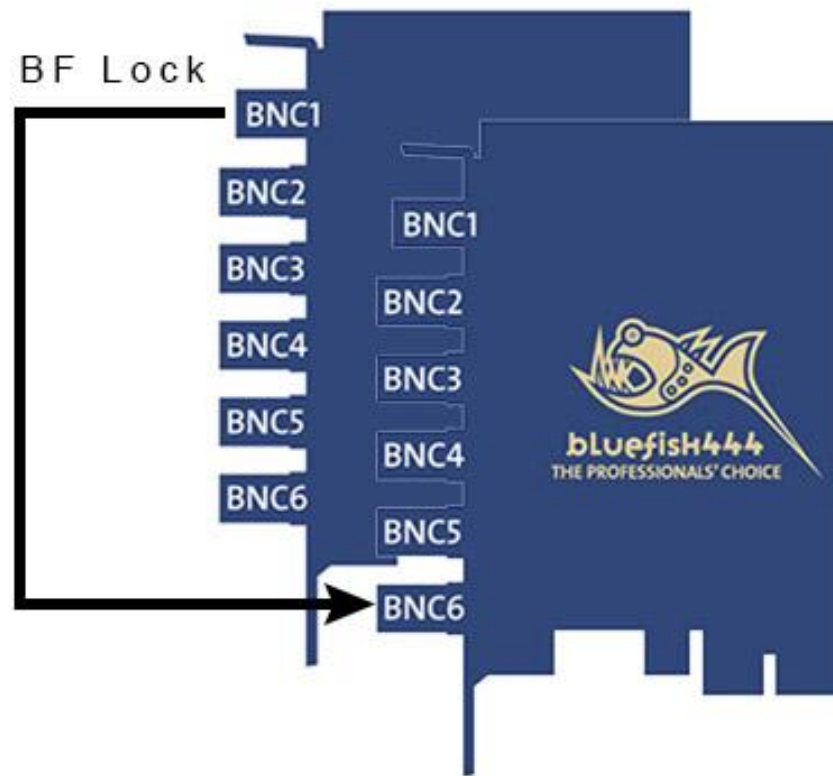
AVID Media Composer supports Epoch | 4K Supernova S+ Turbo up to 4K 60fps via Quad Link 3G SDI Level A/B

SDI connector card 1					SDI connector Card 2			
Video Mode	SDI 2	SDI 3	SDI 4	SDI 5	SDI 2	SDI 3	SDI 4	SDI 5
4K Supernova S+								
SD	270M	270M Input A		270M Input B				
HD/2K YUV 1.5G	1.5G	1.5G Input A		1.5G Input B				
HD/2K YUV 3G	3G Level A/B	3G Input A		3G Input B				
HD/2K RGB 1.5G	1.5G Link A	1.5G Link A Input	1.5G Link B	1.5G Link B Input				
HD/2K RGB 3G	3G Level A/B	3G Input A		3G Input B				
4K Supernova S+ Turbo								
SD	270M	270M Input A		270M Input B				
HD/2K YUV 1.5G	1.5G	1.5G Input A		1.5G Input B				
HD/2K YUV 3G	3G Level A/B	3G Input A		3G Input B				
HD/2K RGB 1.5G	1.5G Link A		1.5G Link B					
HD/2K RGB 3G	3G Level A/B	3G Input A		3G Input B				
4K YUV 1.5G	1.5G quad 1		1.5G quad 2		1.5G quad 3		1.5G quad 4	
4K RGB 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	
4K YUV 3G	3G A/B quad 1		3G A/B quad 2		3G A/B quad 3		3G A/B quad 4	

BLUEFISH444 HD-SDI SUPPORT

Genlock and BF Lock

Epoch | 4K Supernova S+ cards allow for the generation of a proprietary sync signal, BF Lock, which can be fed into any Bluefish444 Genlock Input. When a BF Lock output is connected to the Genlock input of another Bluefish444 card you are able to share a common clock, or synchronisation between the two cards. Epoch | 4K Supernova S+ Turbo bundles should have this connection when operating in 4K video modes.



BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch | 4K Neutron connectors

Connector	Three In	Three Out	1 In 2 Out
MDR20 Breakout Connector			
HDMI	NA	HDMI out	HDMI out
1	Input A	Output A	Output A
2	Input B	Output B	Input A
3	Input C	Genlock / Output C	Genlock / Output B



Epoch | 4K Neutron supports many video modes, signal types and frame rates.

To understand the capabilities of the hardware and each 3G HD-SDI connector please refer to Table 1b.

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 Epoch | 4K Neutron card setup (3 Out)

AVID Media Composer supports Epoch | 4K Neutron up to 4K 30fps via Dual Link 3G Level B.

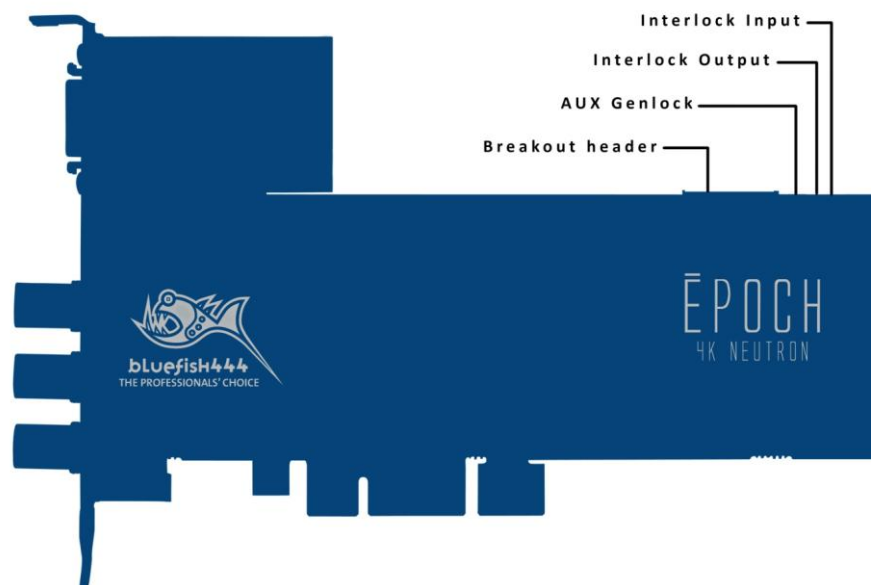
AVID Media Composer supports Epoch | 4K Neutron Turbo up to 4K 60fps via Quad Link 3G Level A.

Video Mode	SDI 1	SDI 2	SDI 3	SDI 1	SDI 2	SDI 3
4K Neutron						
SD	270M					
HD/2K YUV 1.5G	1.5G					
HD/2K YUV 3G	3G Level A/B					
HD/2K RGB 1.5G	1.5G Link A	1.5G Link B				
HD/2K RGB 3G	3G Level A/B					
4K YUV 3G (DS)	3G quad 1 & 2	3G quad 3 & 4				
4K Neutron Turbo						
SD	270M					
HD/2K YUV 1.5G	1.5G					
HD/2K YUV 3G	3G Level A/B					
HD/2K RGB 1.5G	1.5G Link A	1.5G Link B				
HD/2K RGB 3G	3G Level A/B					
4K YUV 1.5G	1.5G quad 1	1.5G quad 2		1.5G quad 3	1.5G quad 4	
4K RGB 3G	3G A/B quad 1	3G A/B quad 2		3G A/B quad 3	3G A/B quad 4	
4K YUV 3G	3G A/B quad 1	3G A/B quad 2		3G A/B quad 3	3G A/B quad 4	

BLUEFISH444 HD-SDI SUPPORT

Auxiliary Genlock and Interlock connections

Neutron cards feature an additional Auxiliary Genlock connector located internally on the top edge of the card. The Auxiliary Genlock input connects to the MDR20 Breakout.



Multiple Neutron cards may be locked together sharing a common clock. This is achieved by attaching the **Interlock cable** (Part Number CAB_ILOK) from the **Interlock Output** of one card to the **Interlock Input** of a second card.

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Bluefish444 SDI Signal types and SDI Transport types

The table below shows the types of video signal that can be transported on various SDI types and how many cables might be required.

SDI Signal Type					SDI Transport Type				
TYPE	Frequency FPS	Resolution	Sampling	Colour Space	270M	1.5G	3G Level A	3G Level B	3G Level B DS
SD	@25, 29.97	625/525	422	YUV	1				
SD	@25, 29.97	625/525	444	RGB	2				
HD 720 P	@23, 25, 50, 59, 60	1280x720	422	YUV		1			
HD 1080 i	@25, 29, 30	1920x1080	422	YUV		1			
HD 1080 i	@25, 29, 30	1920x1080	444	RGB		2	1	1	
HD 1080 P/PsF	@23, 24, 25, 29, 30	1920x1080	422	YUV		1			
HD 1080 P/PsF	@23, 24, 25, 29, 30	1920x1080	444	RGB		2	1	1	
HD 1080 P	@ 48, 50, 59, 60	2048x1080	422	YUV		1	1	1	
2Kx1080 P/PsF	@23, 24, 25, 29, 30	2048x1080	422	YUV		1			
2Kx1080 P/PsF	@23, 24, 25, 29, 30	2048x1080	444	RGB		2	1	1	
2Kx1080 P/PsF	@48, 50, 59, 60	2048x1080	422	YUV		2	1	1	
UHD 1.77:1 P/PsF	@23, 24, 25, 29, 30	3840x2160	422	YUV		4			2
UHD 1.77:1 P/PsF	@23, 24, 25, 29, 30	3840x2160	444	RGB		8	4	4	
UHD 1.77:1 P/PsF	@48, 50, 59, 60	3840x2160	422	YUV		8	4	4	
UHD 1.89:1 P	@23, 24, 25, 29, 30	4096x2160	422	YUV		4			2
UHD 1.89:1 P	@23, 24, 25, 29, 30	4096x2160	444	RGB		8	4	4	
UHD 1.89:1 P	@48, 50, 59, 60	4096x2160	422	YUV		8	4	4	

Table 1b

BLUEFISH444 HD-SDI SUPPORT

Bluefish444 AVID support

General Information

Bluefish444 host a dedicated AVID webpage. Here you can find information on the latest supported features and hardware, along with installer updates and support contacts.

www.bluefish444.com/avid

Contacting Support

Bluefish444 provide unlimited email and phone support to all registered customers for the life of the product warranty.

If you have any questions please contact support at:

avid.support@bluefish444.com

support@bluefish444europe.com

For telephone support you must register your product at

www.bluefish444.com/support/techsupport

To help our representatives resolve your issues please have the following information on hand:

- System configuration and manufacture, motherboard type and devices installed
- SCSI or RAID controller card type as well as storage array configuration
- Operating System, and Version
- Applications installed, and Version
- Bluefish444 Serial number and product type
- Bluefish444 Installer version
- Contact number
- Company name

All AVID customers may use the Community Forums and Avid Knowledgebase for free.

(<http://community.avid.com/forums/> and <http://www.avid.com/US/support/find-support/category/knowledge-base>, respectively)