

**DELIVER THE HIGHEST QUALITY 2K/HD VIDEO WORKFLOWS
WITH EPOCH | NEUTRON VIDEO I/O CARDS**

**EPOCH
4K NEUTRON**

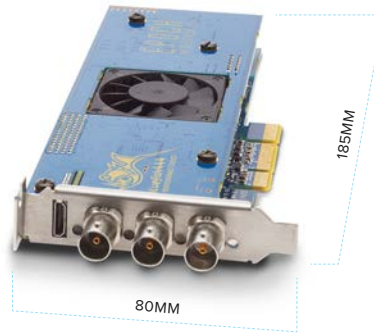
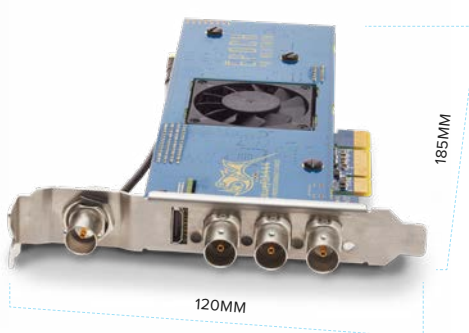
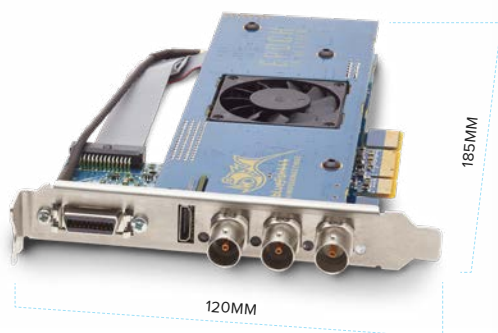
Part No. EB3007C

**EPOCH
4K NEUTRON**

Part No. EB3007B

**EPOCH
4K NEUTRON LP**

Part No. EB3007F



ANALOGUE
AUDIO
AES AUDIO
RS-422
AUX REFERENCE



2K/HD HDMI



HD/SD



BNC1

HD/SD



BNC2

HD/SD



BNC3

HD/
REFERENCE



OR

FEATURE	EPOCH NEUTRON
SD-SDI	2
1.5G HD-SDI	3
3G-SDI (Level A+B)	NO
Dual Link 1.5G (4:2:2:4/4:4:4:4)	YES
Dual Link 3G (Level A+B)	NO
Quad Link 1.5G	NO
Quad Link 3G (Level A+B)	NO
2K/HD/SD HDMI (Output)	YES
UHD HDMI (Output)	NO
Low-latency hardware keyer	YES
Multi-card support	YES
Colour space converter	YES
Customisable pixel formats	YES
Dedicated Reference Input	YES*
Breakout cable	YES^

*Available on model EB3007C only. ^Available on model EB3007C only. Additional shield available on request for low-profile model.



SPECIFICATIONS	EPOCH NEUTRON	EPOCH NEUTRON LP
Width	120MM	80MM
Length	185MM	185MM
Internal Clearance (L)	169MM	169MM
Height	1 PCIE SLOT	1 PCIE SLOT
Weight	220G	180G

VIDEO I/O**SDI VIDEO**

SD SMPTE 295M	2
HD 1.5G SMPTE 292M	3
3G (Level A+B) SMPTE 424M	3
Dual Link 1.5G SMPTE 372M	YES
Dual Link 3G	NO
Quad Link 1.5G SMPTE 2036-1	NO
Quad Link 3G SMPTE 2036-1	NO
Maximum Video Channels	4
12/10/8-bit 4:4:4:4 SDI	YES
12/10/8-bit 4:2:2:4 SDI	YES

HDMI OUTPUT

2K/HD/SD	YES
4K DCI (4096x2160p) @ 24 fps	NO
UHD (3840x2160p) @ 24, 25, 29, 30 fps	NO

REFERENCE

Bi-Level/Tri-Level Reference Input	YES
Bi-Level/Tri-Level Reference auxiliary Input (Dedicated BNC)	YES [^]
Bi-Level/Tri-Level Reference auxiliary Input (Via Breakout Cable)	YES [^]
Interlocking I/O supporting Epoch Neutron and KRONOS cards	YES

ANCILLARY

HANC	
RP 188 timecode	YES
16 channels of embedded audio per SDI	YES
Video payload ID	YES
Custom packets	YES
VANC	
Closed captioning	YES
3 line VITC	YES
Custom packets	YES

AUDIO I/O**AUDIO SIGNALS**

16 channels of embedded audio Input per SDI	YES
8 channels of AES ID3 Input (unbalanced, BNC)	YES [^]
16 channels of embedded audio Output per SDI	YES
8 channels of AES ID3 Output (unbalanced, BNC)	YES [^]
2 channels -10DBU analogue Output (unbalanced, RCA)	YES [^]
Dolby Digital pass-through SDI	YES

HARDWARE**MAJOR HARDWARE FEATURES**

High-performance, bypass relays	YES
Fully programmable 4 x 4 x 33-bit colour matrix	YES
12-bit video signal path throughout	YES
Automatic cross-locking and intelligent output phasing across formats	YES
Audio sample-rate converters	YES
(MR ²) Master Routing Resource	YES
ISIM (Input Stream Integrity Management)	YES
4-lane PCI-Express (8 and 16 lane compatible)	YES
Full-duplex DMA data transfer bandwidth 1.1GB/s	YES
256MB on-board memory	YES
Hardware downstream keyer	YES
LTC I/O BNC	NO ¹
RS-422 serial port (Via breakout cable)	YES [^]

VIDEO FORMATS**SUPPORTED YUV SDI VIDEO MODES**

(2K) 2048x1080p/PsF @ 23.976, 24, 25, 29.97, 30 fps	YES
(2K) 2048x1080p/PsF @ 48, 50, 59.94, 60 fps	YES (DL)
(HD) 1920x1080p/PsF @ 23.976, 24, 25, 29.97, 30 fps	YES
(HD) 1920x1080p/PsF @ 48, 50, 59.94, 60 fps	YES (DL)
(HD) 1920x1080i @ 25, 29.97, 30 fps	YES
(HD) 1280x720p @ 23.976, 24, 25, 29.97, 30, 50, 59.94, 60 fps	YES
(SD) 720x576i @ 25 fps PAL	YES
(SD) 720x486i @ 29.97 fps NTSC	YES

SUPPORTED RGB SDI VIDEO MODES

(2K) 2048x1080p/PsF @ 23.976, 24, 25, 29.97, 30 fps	YES (DL)
(2K) 1920x1080p/PsF @ 23.976, 24, 25, 29.97, 30 fps	YES (DL)
(HD) 1920x1080i @ 25, 29.97, 30 fps	YES (DL)
(SD) 720x576i @ 25 fps PAL	YES (DL)
(SD) 720x486i @ 29.97 fps NTSC	YES (DL)

SUPPORTED HSDL SDI VIDEO MODES

(2K) 2048x1556PsF @ 14.98, 15 fps	YES (DL)
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SUPPORTED 4K YUV SDI VIDEO MODES

(4K) 4096x2160p @ 23.976, 24, 25, 29.97, 30 fps	NO
(4K) 4096x2160p @ 48, 50, 59.94, 60 fps	NO
(UHD) 3840x2160p @ 23.976, 24, 25, 29.97, 30 fps	NO
(UHD) 3840x2160p @ 48, 50, 59.94, 60 fps	NO

SUPPORTED 4K RGB SDI VIDEO MODES

(4K) 4096x2160p @ 23.976, 24, 25, 29.97, 30 fps	NO
(UHD) 3840x2160p @ 23.976, 24, 25, 29.97, 30 fps	NO

SUPPORTED PIXEL FORMATS

2VUY, YUVS, BV8, V210, AYUV _ 4224, AYUV _ 4444, YV12, I420	YES
ARGB, BGRA, RGB24, Cineon, DPX, RGB48	YES
Custom using flexible hardware pixel format engine	YES

[^]Available on model EB3007B only. [^]Available on model EB3007C only. Additional shield available on request for low-profile model. ¹Optional shield required. DL = Dual Link (2 BNC).

CROSS-PLATFORM SUPPORT WITH INDUSTRY-LEADING 3RD-PARTY SOFTWARE



For a comprehensive and up-to-date list of supported software, visit bluefish444.com/software

Bluefish444 | Telephone: +61 3 9682 9477 | **Fax:** +61 3 9328 2031 | info@bluefish444.com
For worldwide reseller and distributor contact information, please go to bluefish444.com/contacts