

DELIVER CUTTING-EDGE VIDEO WORKFLOWS WITH EPOCH | 4K NEUTRON

EPOCH 4K NEUTRON

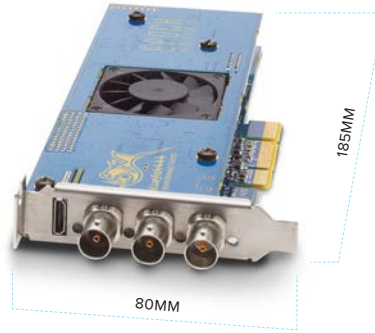
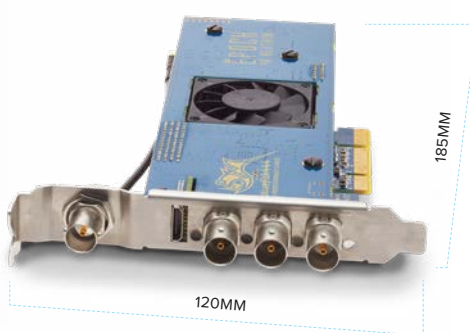
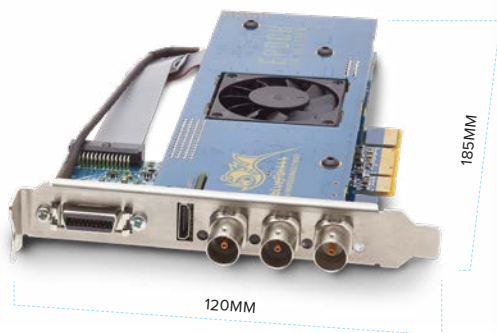
Part No. EB3006C

EPOCH 4K NEUTRON

Part No. EB3006B

EPOCH 4K NEUTRON LP

Part No. EB3006F



ANALOGUE
AUDIO
AES AUDIO
RS-422
AUX REFERENCE



UHD/HD HDMI



3G/HD/SD



BNC1

3G/HD/SD



BNC2

3G/HD/SD



BNC3

3G/HD/
REFERENCE



OR

FEATURE	EPOCH 4K NEUTRON
SD-SDI	2
1.5G HD-SDI	3
3G-SDI (Level A+B)	3
Dual Link 1.5G (4:2:2:4/4:4:4:4)	YES
Dual Link 3G (Level A+B)	YES
Quad Link 1.5G	NO
Quad Link 3G (Level A+B)	NO
2K/HD/SD HDMI (Output)	YES
UHD HDMI (Output)	YES
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 EB3006C only. ^Available on model EB3006C only. Additional shield available on request for low-profile model.



SPECIFICATIONS	EPOCH 4K NEUTRON	EPOCH 4K 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	YES
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	YES
UHD (3840x2160p) @ 24, 25, 29, 30 fps	YES

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

SUPPORTED HSDL SDI VIDEO MODES

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

(4K) 4096x2160p @ 23.976, 24, 25, 29.97, 30 fps	YES ²
(4K) 4096x2160p @ 48, 50, 59.94, 60 fps	NO
(UHD) 3840x2160p @ 23.976, 24, 25, 29.97, 30 fps	YES ²
(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 EB3006B only. [^]Available on model EB3006C only. Additional shield available on request for low-profile model. ¹Optional shield required. ²4K/UHD SDI support provided by Dual Link 3G level B (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

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For worldwide reseller and distributor contact information, please go to bluefish444.com/contacts