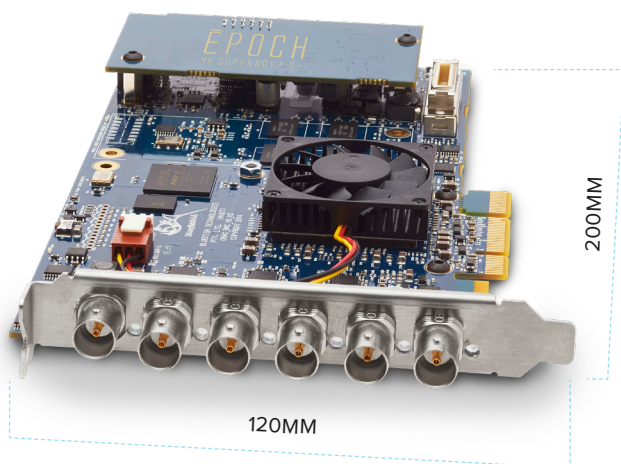
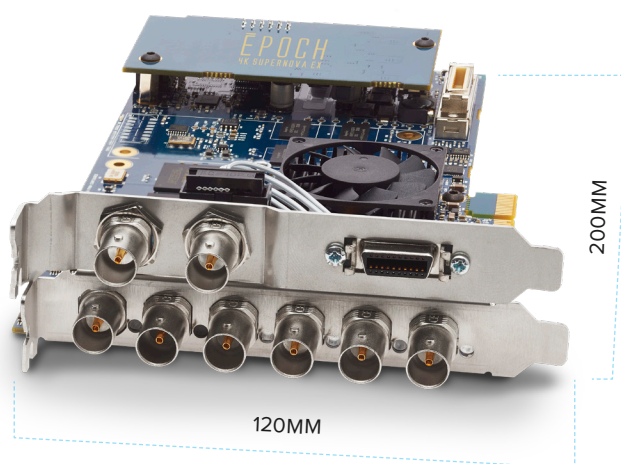




**EPOCH**  
4K SUPERNOVA S+



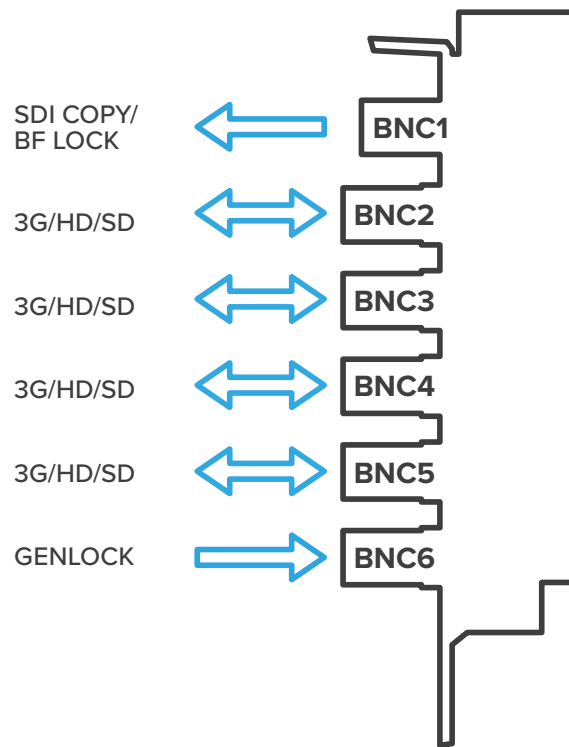
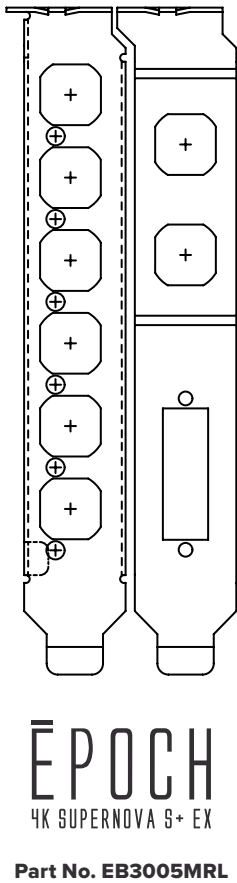
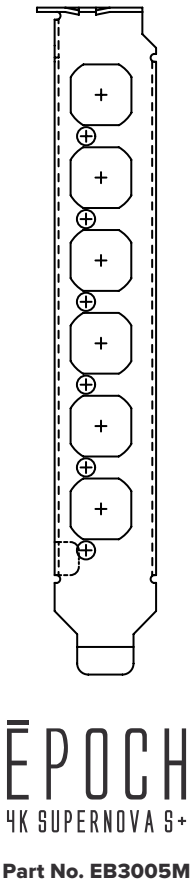
**EPOCH**  
4K SUPERNOVA S+ EX

## MAJOR FEATURES FOR EPOCH | 4K SUPERNOVA S+

|                                |     |                                |     |
|--------------------------------|-----|--------------------------------|-----|
| SD-SDI                         | YES | Multi-card Support             | YES |
| 1.5G HD-SDI                    | YES | 5th BNC SDI Copy/BF Lock       | YES |
| 3G-SDI (Level A+B)             | YES | 16-bit Half Float Pixel Format | YES |
| Dual Link 1.5G (4:2:2/4:4:4:4) | YES | Interlocking Genlock           | YES |
| Dual Link 3G (Level A+B)       | YES | Bypass Relays                  | YES |
| Quad Link 1.5G                 | YES | Full Duplex DMA                | YES |
| Quad Link 3G (Level A+B)       | YES | VBI, HANC & VANC               | YES |
| Dedicated Genlock              | YES | Embedded Audio                 | YES |
| Low-latency Hardware Keyer     | YES | NVIDIA GPU Direct              | YES |
| Colour Space Converter         | YES | AMD Direct GMA                 | YES |
| Customisable Pixel Formats     | YES | Range of Firmware Options      | YES |

ACHIEVE MULTIPLE WORKFLOWS WITH THE FLEXIBILITY  
OF EPOCH | 4K SUPERNOVA S+





| PART NUMBER | PRODUCT                    | DESCRIPTION                                                    |
|-------------|----------------------------|----------------------------------------------------------------|
| EB3005M     | Epoch   4K Supernova S+    | Full-height with 4 BNC, 5th BNC Copy / BF Lock and Genlock BNC |
| EB3005MRL   | Epoch   4K Supernova S+ EX | Standard Card + External Audio/RS-422/LTC I/O                  |

| ADDITIONAL SHIELD ADDS          |                         |                            |                            |
|---------------------------------|-------------------------|----------------------------|----------------------------|
|                                 | EPOCH   4K SUPERNOVA S+ | EPOCH   4K SUPERNOVA S+ EX | EPOCH   4K SUPERNOVA S+ X2 |
| AES/EBU Audio Input 8CH (BNC)   | NO                      | YES                        | YES                        |
| AES/EBU Audio Output 8CH (BNC)  | NO                      | YES                        | YES                        |
| Analogue Audio Output 2CH (RCA) | NO                      | YES                        | YES                        |
| RS-422 Machine Control          | NO                      | YES                        | YES                        |
| LTC IN/OUT (BNC)                | NO                      | YES                        | YES                        |

| SPECIFICATIONS         | EPOCH   4K SUPERNOVA S+ | EPOCH   4K SUPERNOVA S+ EX |
|------------------------|-------------------------|----------------------------|
| Width                  | 120MM                   | 120MM                      |
| Length                 | 200MM                   | 200MM                      |
| Internal Clearance (L) | 184MM                   | 184MM                      |
| Height                 | 1 PCIE SLOT             | 2 PCIE SLOTS               |
| Weight                 | 280G                    | 300G                       |

| VIDEO I/O                                  |  |     |
|--------------------------------------------|--|-----|
| SDI VIDEO                                  |  |     |
| SD SMPTE 295M                              |  | 4   |
| HD 1.5G SMPTE 292M                         |  | 4   |
| 3G (Level A+B) SMPTE 424M                  |  | 4*  |
| Dual Link 1.5G SMPTE 372M                  |  | YES |
| Dual Link 3G                               |  | YES |
| Quad Link 1.5G SMPTE 2036-1                |  | YES |
| Quad Link 3G SMPTE 2036-1                  |  | YES |
| Maximum Video Channels                     |  | 4   |
| 12/10/8-bit 4:4:4 SDI                      |  | YES |
| 12/10/8-bit 4:2:2 SDI                      |  | YES |
| 5th BNC monitor output                     |  | YES |
| GENLOCK                                    |  |     |
| Bi-Level/Tri-Level Genlock (Dedicated BNC) |  | YES |
| BF Lock Output                             |  | 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, 3G 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 <sup>2</sup> ) 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 keyer                                                        | YES  |
| LTC I/O BNC                                                           | YES^ |
| RS-422 Serial Port (Via Breakout Cable)                               | YES^ |

| VIDEO FORMATS                                                  |      |
|----------------------------------------------------------------|------|
| SUPPORTED YUV SDI VIDEO MODES                                  |      |
| (2K) 2048 x 1080p/PsF @ 23.976, 24, 25, 29.97, 30FPS           | YES  |
| (2K) 2048 x 1080P/PsF @ 48, 50, 59.94, 60FPS                   | YES  |
| (HD) 1920 x 1080p/PsF @ 23.976, 24, 25, 29.97, 30FPS           | YES  |
| (HD) 1920 x 1080p/PsF @ 48, 50, 59.94, 60FPS                   | YES  |
| (HD) 1920 x 1080i @ 25, 29.97, 30FPS                           | YES  |
| (HD) 1280 x 720p @ 23.976, 24, 25, 29.97, 30, 50, 59.94, 60FPS | YES  |
| (SD) 720 x 576i @ 25FPS PAL                                    | YES  |
| (SD) 720 x 486i @ 29.97FPS NTSC                                | YES  |
| SUPPORTED RGB SDI VIDEO MODES                                  |      |
| (2K) 2048 x 1080p/PsF @ 23.976, 24, 25, 29.97, 30FPS           | YES  |
| (HD) 1920 x 1080p/PsF @ 23.976, 24, 25, 29.97, 30FPS           | YES  |
| (HD) 1920 x 1080i @ 25, 29.97, 30FPS                           | YES  |
| (SD) 720 x 576i @ 25FPS PAL                                    | YES  |
| (SD) 720 x 486i @ 29.97FPS NTSC                                | YES  |
| SUPPORTED HSDL SDI VIDEO MODES                                 |      |
| (2K) 2048 x 1556PsF @ 14.98, 15FPS                             | YES  |
| SUPPORTED 4K YUV SDI VIDEO MODES                               |      |
| (4K) 4096 x 2160p @ 23.976, 24, 25, 29.97, 30FPS               | YES  |
| (4K) 4096 x 2160p @ 48, 50, 59.94, 60FPS                       | NO   |
| (UHD) 3840 x 2160p @ 23.976, 24, 25, 29.97, 30FPS              | YES  |
| (UHD) 3840 x 2160p @ 48, 50, 59.94, 60FPS                      | NO   |
| SUPPORTED 4K RGB SDI VIDEO MODES                               |      |
| (4K) 4096 x 2160p @ 23.976, 24, 25, 29.97, 30FPS               | YES* |
| (UHD) 3840 x 2160p @ 23.976, 24, 25, 29.97, 30FPS              | YES* |
| 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  |

\*Dependent on available PCIe bandwidth. ^Available on Epoch | 4K Supernova S+ EX only.

# BUNDLED SOFTWARE



**Bluefish444 Symmetry** is a proprietary integrated DI acquisition, review and play out software for Windows and is bundled FREE with all Bluefish444 video I/O cards.

BUNDLED

FREE



**Bluefish444 IngeStore** is a multi-channel ingest tool capable of up to four independent streams of SD or HD video from separate SDI sources. Bundled FREE with all Bluefish444 video I/O cards.

BUNDLED

FREE



**Bluefish444 SDK** is designed for developers who wish to integrate Bluefish444 video products into their own solutions, across Windows, macOS and Linux systems.

BUNDLED

FREE

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



For a comprehensive and up-to-date list of supported software, visit [bluefish444.com/software](http://bluefish444.com/software)

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For worldwide reseller and distributor contact information, please go to [bluefish444.com/contacts](http://bluefish444.com/contacts)