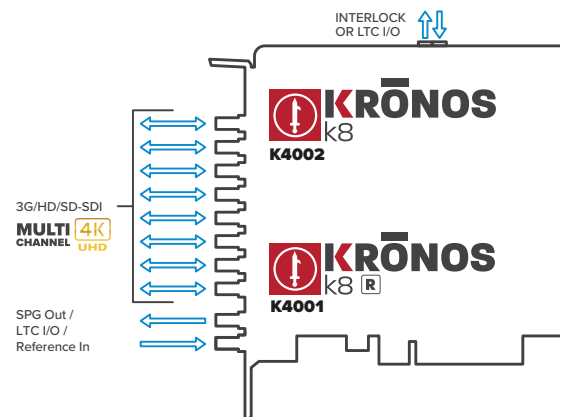
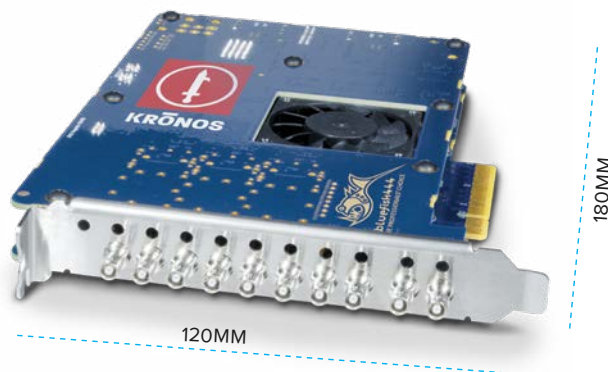


**A VIDEO CARD WITH BI-DIRECTIONAL 3G SDI HD-BNC'S
PROVIDING MULTI-CHANNEL SD/HD/3G & 4K 60P CAPTURE AND PLAYBACK**



**8x3G
UPGRADE**

Upgrade any **KRONOS K8[R]** SKU to **8x3G** for **multi-channel 4K** via a licence.

MAJOR FEATURES FOR KRONOS K8 & K8[R]	K8 K4002	K8[R] K4001		K8 K4002	K8[R] K4001
Bi-directional SDI (HD-BNC)	8	8	Interlocking I/O	YES	YES
1.5G HD/SD-SDI	8	8	Bundled Software BlueToolbox and BlueSigGen	YES	YES
3G-SDI (Level A+B)	8	4	Embedded audio	YES	YES
Maximum UHD Channels	2	1	Low-latency hardware keyers	4	4
Dual Link 1.5G (4:2:2/4:4:4:4)	YES	YES	Bypass relays	4	4
Dual Link 3G (Level A+B)	YES	YES	Colour space converter	YES	YES
Quad Link 1.5G / 3G (Level A+B)	YES	YES	Customisable pixel formats and rasters	YES	YES
4K/UHD HDR HFR	YES	YES	Multi-card support	YES	YES
Reference In / SPG Out	YES	YES	Thunderbolt compatible	YES	YES
LTC In / Out	YES	YES	Full-duplex DMA	YES	YES
Optional AUX I/O via STEM port	YES	YES	VBI, HANC & VANC	YES	YES
LTC I/O (HD-BNC), RS-422 (RJ45), AES Audio I/O (DB25)	EX-1	EX-1	NVIDIA GPUDirect	YES	YES
Analogue Audio I/O (2 x 3.5mm TRS), RS-422 (RJ45), AES Audio I/O (DB25)	EX-2	EX-1	Stereoscopic/3D imaging	YES	YES

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



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

SPECIFICATIONS		KRONOS K8 & K8[R]	
Width		18.4MM (SINGLE SLOT PCIE)	
PCle Length		167MM (HALF LENGTH PCIE)	
Total Length		180MM	
PCle Height		111MM (FULL HEIGHT PCIE)	
Total Height		120MM	
Weight		300G	
Power requirement		PCI 12V 2A	

VIDEO I/O		K8	K8[R]
SDI VIDEO			
SD SMPTE 295M		8	8
HD 1.5G SMPTE 292M		8	8
3G (Level A+B) SMPTE 424M		8	4
Dual Link 1.5G SMPTE 372M		YES	YES
Dual Link 3G		YES	YES
Quad Link 1.5G		YES	YES
Quad Link 3G SMPTE 2036-1		YES	YES
Maximum HD video channels		8	8
Maximum UHD video channels		2	1
12/10/8-bit 4:4:4:4 SDI		YES	YES
12/10/8-bit 4:2:2:4 SDI		YES	YES
REFERENCE			
Reference IN / SPG OUT (Dedicated HD-BNC)		YES	YES
Interlocking I/O supporting KRONOS and Epoch I Neutron cards		YES	YES

ANCILLARY	
HANC	
RP-188 timecode	YES
16 channels of embedded audio per Memory Channel	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 IN per Memory Channel	YES
16 channels of embedded audio OUT per Memory Channel	YES
Dolby digital pass-through SDI	YES

OPTIONAL AUX I/O VIA STEM PORT	
LTC I/O (HD-BNC), RS-422 (RJ45), AES audio I/O (DB25)	EX1
Analogue audio I/O (2 x 3.5mm TRS), RS-422 (RJ45), AES audio I/O (DB25)	EX2

OPTIONAL AUX LTC I/O VIA INTERLOCK	
LTC I/O (BNC) Aux shield	EX3

MAJOR HARDWARE FEATURES	
High-performance, 3G bypass relays	4
Low-latency hardware keyers	4
Fully programmable 4 x 4 x 33-bit colour matrix	YES
12-bit video signal path throughout	YES
Automatic cross-locking and phasing across formats	YES
Audio sample-rate converters	YES
(MR2) Master Routing Resource	YES
ISIM (Input Stream Integrity Management)	YES
4K/UHD HDR modes	YES
Stereoscopic/3D modes	YES
8-lane PCI-Express Gen3 (16-lane compatible)	YES
Full-duplex DMA data transfer bandwidth	YES
LTC I/O (Via reference BNC)	YES
LTC I/O (Via Interlock) *requires EX3	YES
STEM Port	YES

VIDEO FORMATS	
SUPPORTED YUV SDI VIDEO MODES	
(2K) 2048 x 1080p/PsF @ 23.98, 24, 25, 29.97, 30 FPS	YES
(2K) 2048 x 1080P/PsF @ 48, 50, 59.94, 60 FPS	YES
(HD) 1920 x 1080p/PsF @ 23.98, 24, 25, 29.97, 30 FPS	YES
(HD) 1920 x 1080p/PsF @ 48, 50, 59.94, 60 FPS	YES
(HD) 1920 x 1080i @ 25, 29.97, 30 FPS	YES
(HD) 1280 x 720p @ 23.98, 24, 25, 29.97, 30, 50, 59.94, 60 FPS	YES
(SD) 720 x 576i @ 25 FPS PAL	YES
(SD) 720 x 486i @ 29.97 FPS NTSC	YES
SUPPORTED RGB SDI VIDEO MODES	
(2K) 2048 x 1080p/PsF @ 23.98, 24, 25, 29.97, 30 FPS	YES
(HD) 1920 x 1080p/PsF @ 23.98, 24, 25, 29.97, 30 FPS	YES
(HD) 1920 x 1080i @ 25, 29.97, 30 FPS	YES
(SD) 720 x 576i @ 25 FPS PAL	YES
(SD) 720 x 486i @ 29.97 FPS NTSC	YES
SUPPORTED HSDL SDI VIDEO MODES	
(2K) 2048 x 1556PsF @ 14.98, 15 FPS	YES
SUPPORTED UHD YUV SDI VIDEO MODES	
(4K) 4096 x 2160p @ 23.98, 24, 25, 29.97, 30 FPS	YES
(4K) 4096 x 2160p @ 48, 50, 59.94, 60 FPS	YES
(UHD) 3840 x 2160p @ 23.98, 24, 25, 29.97, 30 FPS	YES
(UHD) 3840 x 2160p @ 48, 50, 59.94, 60 FPS	YES
SUPPORTED UHD RGB SDI VIDEO MODES	
(4K) 4096 x 2160p @ 23.98, 24, 25, 29.97, 30 FPS	YES
(UHD) 3840 x 2160p @ 23.98, 24, 25, 29.97, 30 FPS	YES
SUPPORTED PIXEL FORMATS	
2VUY, YUVS, BV8, V210, AYUV _ 4224, AYUV _ 4444, YV12, I420	YES
ARGB, BGRA, RGB24, CINEON, DPX, RGB48	YES
Customisable hardware pixel or video format engine	YES

Bluefish444 contact sales@bluefish444.com, or visit bluefish444.com/contacts