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## BLUEFISH444 ANNOUNCES NEW KRONOS RANGE OF VIDEO, AUDIO, DATA I/O CARDS

Multi-Channel 4K 60p, High Dynamic Range, High Frame Rate SDI and SMPTE 2022 support for Video over IP workflows in Broadcast, Production and Post Production

S. Melbourne, Australia, August 5, 2016....Bluefish444, manufacturer of the industry's highest-quality uncompressed 4K/2K/HD/SD video I/O cards for the Windows, Mac OS X and Linux operating systems, introduces the KRONOS range of video and audio I/O cards.

The new line extends the feature set of Bluefish444's Epoch video cards, which support up to 4K 60 frame per second workflows. KRONOS is developed for additional workflows requiring Ultra HD up to 8K, high frame rates up to 120fps, high dynamic range and video over IP.

With these capabilities, Bluefish444 cards are developed to support all areas of TV and feature film production, post, display and restoration, in addition to virtual reality and augmented reality. For use in theme parks, music concerts, sporting and outdoor events, the KRONOS range is also recommended for single and multi-card support enabling 8K/4K/2K imagery presented across one or more screens or projectors.

KRONOS adds video processing technologies including resolution scaling, video interlace and de-interlace; hardware CODEC support, SDI to IP and IP to SDI conversion, and continues to offer the 12-bit colour space conversion and low-latency capabilities of Epoch.

Real-time graphics systems will benefit from the KRONOS range's ability to achieve the highest level of quality, reliability and low latency whilst adding multiple streams of 4K Ultra HD and high frame rate video I/O demanded by sports and live event coverage.

KRONOS feature highlights include:

- SD SMPTE295M
- HD 1.5G SMPTE292M
- 3G (A+B) SMPTE424M
- ASI
- 4:2:2:4 / 4:4:4:4 SDI
- Single Link / Dual Link / Quad Link interfaces
- 12/10-bit SDI
- Full 4K frame buffer
- 3Gbps Bypass Relays
- 12-bit video processing pipeline
- 4 x 4 x 32bit Matrix
- MR2 Routing resources
- Hardware Keyer (2K/HD)
- Customizable and flexible pixel formats
- AES Audio Input / AES Audio Output

- LTCI/O
- RS422
- Bi/Tri-level Genlock Input & Crosslocking
- Genlock loop through
- VANC complete access
- HANC Embedded Audio/Payload ID/Custom Packets/RP188
- MSA and Non-MSA compatible SFP+
- SMPTE 2022-6

"With the choice of HD BNC SD/HD/3G connectivity, or SFP+ connectivity enabling greater than 3G SDI and Video over IP across 10Gbps Ethernet, the KRONOS range will suit today's demanding requirements and cover emerging technologies as they mature," states Tom Lithgow, Product Manager, Bluefish444. He continues, "4K ultra high definition, high frame rate and ultra-high frame rate video, high dynamic range, video over IP, and hardware assisted processing are now available to OEM developers, professional content creators and system integrators with the Bluefish444 KRONOS Range."

HDMI 2.0 I/O, additional SMPTE 2022 IP standards and emerging IP standards are earmarked for future support via firmware update.

KRONOS will offer the choice of SDI I/O connectivity with the KRONOS ēlektron featuring eight high density BNC connectors capable of SD/HD/3G SDI. Each HD BNC connector is fully bi-directional enabling numerous configuration options including eight input, eight output, or a mixture of SDI input and output connections.

The KRONOS optikós offers future proofing connectivity with three SFP+ cages in addition to two HD BNC connectors for SD/HD/3G SDI I/O. The SFP+ cages on KRONOS optikós provide limitless connectivity options exposing greater than 3G SDI, IP connectivity across 10Gb Ethernet, and flexibility to choose from numerous physical interfaces.

All KRONOS cards will have an 8 lane Gen 3 PCIe interface to achieve the fastest full duplex DMA. KRONOS will provide access to high bandwidth UHD, high frame rate and high dynamic range video IO and processing, across traditional SDI and also emerging IP standards such as SMPTE 2022.

Supported by Bluefish444's cross platform unified driver and API, the KRONOS range is set to become the highest quality, most reliable solution for high bandwidth multi-channel video, audio and data I/O solution available in the industry.

The KRONOS range will be available in Q4 2016 with pricing announced then. Bluefish444 will demonstrate the KRONOS range at IBC 2016 in Stand 7.J07. For further information regarding KRONOS, visit <a href="https://www.bluefish444.com">www.bluefish444.com</a>

## About Bluefish444:

Bluefish444 is the manufacturer of the industry's highest-quality uncompressed 4K/2K/HD/SD video cards for the Windows, Mac OS X and Linux operating systems. Its video cards are used in broadcast, feature film and post-production markets for editing, animation, compositing, color correction, restoration, digital intermediate, 3D and IPTV applications.

Bluefish444 cards have been used on award-winning feature films, commercials, music videos and sports events worldwide. Bluefish444's range of video cards are incorporated in video servers, encoders, decoders and character generator solutions by numerous 3rd party OEM manufacturers, in addition to other niche & mainstream applications.

Founded in 1998, Bluefish444 is a division and brand name of Bluefish Technologies Pty Ltd., which is based in S. Melbourne, Australia. Its products are distributed via an extensive sales channel of OEMs, dealers, and system integrators globally. For further information, visit www.bluefish444.com

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