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## **Telairity Introduces 4:2:2 Contribution Option for HD and SD Encoders at NAB 2011**

Latest addition to encoding capabilities vaults  
BE8500 Series encoders to leadership position  
as industry's first true "universal" encoder

**Las Vegas, Nev. – April 11, 2011** – Telairity today introduced a key encoding capability for high-bitrate streaming: a 4:2:2 contribution option to its industry-leading H.264/AVC and AVS encoders.

To be debuted on its 8000 Series HD encoder line, the 4:2:2 standard provides significant color quality enhancement of video, important in source editing and other "contribution" applications, compared to the 4:2:0 standard used for broadcast and other "distribution" applications.

Telairity is showcasing all its encoder lines, including the 8000 Series, at the National Association of Broadcasters convention and exhibition, being held at the Las Vegas Convention Center. Telairity is located in South Hall Upper Floor, Booth SU9117.

The option represents another major step forward in versatility for Telairity encoders, as well as enhancing the status of Telairity's encoders as the industry's most complete lineup of compression systems, said Ben Silva, Telairity Senior VP of Worldwide Sales and Business Development.

*More . . .*

“Customers who need 4:2:2 video for contribution or source editing can now use the new 4:2:2 encoders from Telairity or by upgrading the same Telairity encoders they currently use for distributing video, without investing in any new hardware. This addition, together with other recent additions to our encoder lines like transcoding, G.703/DS3 output, CMMB, and ISDB-T with Seg1 built in, makes Telairity systems the most versatile encoders in the world. A single system, like our universal HD/SD/Mobile BE8500, is now able to service any need a customer might have for encoding, transcoding, or formatting” said Silva.

The BE8500 can encode in HD or SD formats using H.264, MPEG-2, AVS, CMMB, 4:2:2, or 4:2:0. It can output in HD, SD, or any mobile, web, or IPTV target format, thus allowing operators to easily and cost-effectively make the transition from MPEG-2 to H.264 for both encoding and contribution. With the transcoding option, it can transcode from MPEG-2, VC1, and most other video formats to the most advanced compression technologies available, H.264 or AVS, while also transizing, transrating, or transforming video. It can output a transport stream in any format, including ASI, IP, DS3, or G.703/E3, as well as CBBM or Seg1 mobile formats. It can encode 3D as well as 2D.

Now, added to all these capabilities, is the ability to provide color sampling in either 4:2:2 contribution or 4:2:0 distribution modes. With this latest addition, the BE8500 becomes the most versatile encoder available globally.

BE8500 systems with the 4:2:2 contribution encoding are shipping now for HD sources, and it will be available shortly for SD sources as well. Visit [www.telairity.com](http://www.telairity.com) for additional details, or call Telairity for pricing.

**4:2:2 contribution: A closer look**

Video compression technologies (like MPEG-2 and its successor, MPEG-4) achieve remarkable savings in the bits needed to reconstruct pictures by systematically discarding information that contributes little to the image, and capturing what remains in the fewest bits possible. Since color information accounts for two-thirds of the bits in a video frame, the use of sampling techniques to reduce color bits is a key compression technology.

So-called 4:2:0 coding keeps color information for one pixel in every four. When the picture is reconstructed, the three gray-scale pixels in a sample block simply borrow color information from the remaining "true color" member. Since the 25% sampling rate used in 4:2:0 coding successfully combines excellent color fidelity with very significant bit reduction, 4:2:0 is the universal distribution standard for compressed video, used not only by all digital color broadcasts and also for all video stored on commercial DVDs and Blu-Ray discs.

When video is captured for editing rather than viewing, however, a higher color sampling rate is often preferred, since the successive manipulations involved in video editing may result in a gradual erosion of color fidelity. For this reason, "contribution" video, captured for source editing before distribution, uses a higher 4:2:2 color sampling scheme. In 4:2:2 color sampling, half the pixels retain full "true color" information: double the 25% sampling rate of 4:2:0 video.

The trade-off for the additional color information is more bits. The difference in color sampling rates means that contribution video runs at a 33% higher data rate than distribution video with the extra bits carrying the additional color information.

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**About Telairity**

Telairity is a supplier of innovative real-time H.264/AVC (MPEG-4) video compression solutions for broadcasting, backhaul, IPTV, and related markets. The company's unique video processing technology, based on the Telairity T1P2000 multi-core video processor and associated direct-execution AVClairity video compression software, delivers the industry's lowest latency and best price/performance for real-time H.264 video encoders today, with unique features like "instant-on" service. The company's global headquarters is based in Santa Clara, Calif. Further information is available at [www.telairity.com](http://www.telairity.com).

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