Scientific Atlanta
A CISCO COMPANY

Versatile Encoding Solutions

It's easy to see why more and more broadcasters and service providers turn to Scientific Atlanta with their business challenges. We give our customers more ways to move more content – using less bandwidth, for less cost – while maintaining superior video quality. Scientific Atlanta has always supported international compression standards and contributed to the MPEG-2 standard, which has served the industry so well for the past decade. Now, with the introduction of new Advanced Video Compression (AVC) encoding technology, Scientific Atlanta once again is a leader. The superior compression capability AVC delivers will help spawn the development of new applications and provide new business opportunities.

Whether you are a content owner, broadcaster, or satellite, cable or telecom operator, Scientific Atlanta – with our broad encoder portfolio and extensive experience in compression technology – has the encoding solution that can help you expand and strengthen your business.

Scientific Atlanta's encoding solutions offer:

- High video quality at low bit rates
- "Best-in-class" MPEG-4 part 10/H.264 encoding quality
- Continued improvement of MPEG-2 compression efficiencies with state-of-the-art encoding algorithms
- Third-generation high-definition TV (HDTV) encoders with AVC technology
- Next-generation standard-definition TV (SDTV) encoders with AVC plug-in upgrade options
- Detail preserving, low bit rate compression through advanced PreSight*Plus*™ pre-processing technology, including pre-analysis (dual pass) and advanced 3D pre-filtering for noise suppression
- Simultaneous Picture-in-Picture encoding in the same encoder for IPTV applications
- Unique auto-concatenation footprint detection algorithm for DVB-T, simulcast re-encoding and contribution application
- Extensive experience in analog-to-digital migration
- Solutions for various applications for standard or high-definition video delivery: IPTV, DVB-T, content distribution over satellite, contribution, DTH, and more.
- True 24/7 operations with dual PSU, combined with three-second system backup

Innovation

Scientific Atlanta's Encoding Solutions At-a-Glance:

IP Transport of MPEG-2 Video...

SD MPEG-2 Encoder (Model D9032™)

The SD MPEG-2 Encoder (Model D9032) has been designed for applications from extreme low bandwidth statistical multiplexing applications to 4:2:2 multi-generation contribution. Applications are supported without requiring lengthy and complex configuration/tuning.

Bandwidth in your distribution channels is of utmost importance. The D9032 Encoder includes PreSight*Plus* technology - a unique DSP-based pre-processing architecture that carries out multiple pre-processing steps to help optimize the encoding process. PreSight*Plus* algorithms perform three functions to address different issues in a compression system:

- Adaptive and motion compensated noise reduction
- Auto-concatenation enabling the encoder to lock the encoding GOP to that of the preceding encoder
- Pre-analysis for optimal dual pass encoding

When Bandwidth Savings Counts...

SD MPEG-2/Advanced Compression Encoder (Model D9034™)

This second-generation MPEG-4 SD encoder is designed to deliver superior video encoding quality for enhanced video and audio transmission in multiple applications. In this encoder, MPEG-2 can co-exist with MPEG-4 part 10 (H.264) video in the same chassis. The D9034 encoder features built-in hardware for an extra channel of MPEG-4 for Picture-in-Picture ("PIP") applications, adaptive motion compensated temporal filtering with PreSight*Plus* noise reduction, integrated frame synchronizer as well as offering full DVB VBI support. Built-in support for digital program insertion (DPI) via contact closure or cue tone interface helps support program and ad-insertion applications in the digital domain. Features like integrated dual IP output, Microsoft IPTV integration capability and dual power supply can help operators to launch broadcast services on a wide range of IP-based networks.

Getting Started...

SD MPEG- 2 Encoder (Model D9020™)

The MPEG-2 Encoder (Model D9020) offers a cost-effective, compact solution that enables headend operators to convert PAL/NTSC programs into compressed MPEG-2 format. Its ease of use allows smooth transition from analog to digital video transmission and features stand-alone VBR or CBR encoding, standard video filtering, and web-based GUI.

Ready for High-Definition...

HD MPEG-2 Encoder (Model D9050™)

The newest generation MPEG-2 HD encoder provides multiple benefits in multi-channel encoding systems for HD/HD or HD/SD statistical multiplexing. This high-performance, cost-efficient encoder includes our newly developed content-aware compression algorithm and PreSight*Plus* dual pass architecture for excellent video quality regardless of content complexity. Furthermore, the encoder supports Digital Program Insertion (DPI) signaling for local ad insertion or for content regionalization. With MPEG-2 encoding data rates going up to 100 Mbits/second, combined with 4:2:2 support, DOLBY-E and BISS-E, this encoder supports both low bandwidth statmux applications as well as demanding high-end contribution applications.

Next-Generation High-Definition Encoder...

HDTV Advanced Compression Encoder (Model D9054™/available Q2)

This new MPEG-4 part 10/H.264 encoder will support multiple applications, including IPTV, contribution, DVB-T and xDSL. Using AVC, operators will be able to maintain high video quality, even at bandwidth-saving low bit rates. By delivering more channels over existing bandwidth, AVC helps expand the usefulness of current networks and provides opportunities to launch expanded HD programming and add new revenue generating services, such as VOD. Equipped to support the delivery of IP video streams, this advanced encoder will also provide valuable encoding capabilities for delivering IP video in twisted pair/DSL environments. This encoder will feature support for multiple audio compression, multi-port IP connectivity, tight integration with our ROSA™ management system, and is architecture-readyfor next generation IP-based statistical multiplexing systems.

Scientific Atlanta
A CISCO COMPANY

Scientific-Atlanta Europe NV
Luipaardstraat 12
8500 Kortrijk, Belgium
Tel: 32.56.445.445

Contact: sales.belgium@sciatl.com
www.saeurope.com