

Telairity Product Line

Versatile Auto-configuring HD/SD H.264/AVC Encoders

Select with confidence from three versatile HD/SD encoder models that auto-configure by input type and are built not merely to meet current needs, but designed with the flexibility to adapt to future needs:

- The BE8600 single-channel contribution encoder (1RU, half-width)
- The BE8700 multichannel distribution encoder (1RU, full-width, 1 to 4 channels)
- The SES3200 blade system (scalable from 4 to 32 channels, high reliability)

All models support the widely deployed H.264/AVC (MPEG-4) standard, but can easily interconvert between codecs by means of a simple software upgrade.

• NEXGEN BE8600 SINGLE CHANNEL CONTRIBUTION ENCODER

5 lb. 1RU half-rack (12" deep) – dual-redundant power supplies – 58W – “instant on” – HD-SDI in – ASI & IP out

The BE8600 H.264/AVC half-width single-channel contribution encoder provides maximum picture quality at a low 250ms latency. In addition to high bitrate 4:2:2 encoding for contribution archives, the BE8600 also supports low bitrate 4:2:0 encoding for narrow backhaul channels or direct-to-viewer distribution over MPEG-4 networks. A variety of configurations enable the BE8600 to take on a wide range of computing tasks.

- **BE8620** – Bundle two BE8600 units together in a single 1RU slot for 2nd channel or backup capacity
- **BE8600-T** – Add vibration resistance and wide temperature tolerance for use in ENG vehicles
- **BC8600** – Equip the unit to run off 28V DC power for helicopter and other aircraft use

Two half-width “buddy systems” further complement the half-width BE8600 family to create advanced encoding solutions in a single full-width 1RU slot:

- **BE8650** – A half-width Orion satellite or terrestrial modulator that, in a BE8600/BE8650 pairing, creates a full-width 1RU double-duty encoder/modulator.
- **BE8680** – A half-width Advanced Media Processing (AMP) Server that, in a BE8600/BE8680 pairing, creates a full-width 1RU system that augments the reliable, high-quality, low-latency H.264/AVC hardware encoding of the BE8600 with adaptable and flexible MPEG TS over IP processing for efficient IP video distribution and storage.

• NEXGEN BE8700 MULTICHANNEL DISTRIBUTION ENCODER

Full-width 1RU (17" deep) – 1 to 4 channels – dual multiplexed GigE IP outputs – individual ASI outputs

The BE8700 can be configured with 1 to 4 channels in a full-width 1RU system. The unit auto-configures to any possible HD/SD mix of outputs—in the 4-channel configuration, from 4/0 to 3/1, 2/2, 1/3, or 0/4—based on the HD/SD mix of inputs. Channels can operate independently, each with its own separate input; or be chained together, to provide multiple parallel encodes of a single input. Both ASI and IP outputs are provided for each channel. IP outputs are multiplexed over two redundant GigE connectors; while a separate ASI output is provided for each channel, with the option to MUX outputs over ASI-1.

- **BE8610** – Single channel model
- **BE8620** – Two channels model
- **BE8630** – Three channels model
- **BE8640** – Four channels mode

- **NEXGEN SES3200 HIGH RELIABILITY BLADE ENCODING SYSTEM**

14RU – 4 to 32 channels – multiplexed dual GigE and ASI outputs – optional input transcoding

The SES3200 blade system combines complete I/O flexibility with complete encoding flexibility. Encode baseband source inputs or dynamically transcode MPEG-2 source inputs to MPEG-4 outputs. Route any input to any encoder channel, and dynamically redefine encoders as HD, SD, or mobile to accommodate shifting demands. Full fabric backplane eliminates the need for cabling, external routers, switches, or multiplexers. The high reliability 24 x 7 x 365 non-stop architecture, based on the telco-grade ATCA (Advanced Telecommunications Computing Architecture) chassis, includes extensive status monitoring, to give early warning of any developing problems; flexible backup schemes, from N+1 to full dual redundancy; automatic fail-over; optional dual redundant output streams; multiple redundant power supplies; and hot-swappable, front-mounted cards for easy replacement and upgrade.

EMS & NMS Management Systems

Focused PC applications designed to simplify the management of multiple Telairity encoders on a common network

The Telairity Encoder Management System (EMS) scales seamlessly from the smallest to the largest installations, allowing remote centralized configuration and operation of any number and combination of Telairity encoder models. The EMS can be supplemented by a more inclusive Network Management System (NMS) that also encompasses upstream and downstream switching routers and provides flexible redundancy mechanisms for automatic failover.

5000 Series Integrated Receiver Decoders (IRDs)

1RU chassis, MPEG-2 and MPEG-4 (H.264/AVC) video decoding in both HD and SD formats

A Model to Fit Every Need and Budget

- **BE5502** — An affordable, full-featured professional 4:2:0 IRD
- **BE5503** — Adds Genlock capability to the 5502 for accurate frame and color synchronization
- **BE5800** — Next-generation model with 4:2:2 8-bit MPEG-2 and 10-bit H.264/AVC decode, 1080p60 decode, decode of up to 8 audio PIDs, 16/32APSK satellite demodulation, Genlock reference input, etc.

IP Transcoders

- **AMP6800** — Full-width 1RU Advanced Media Processor able to reformat the outputs of multiple encoders for “Over The Top” (OTT) transmission across the public internet. Repackages UDP streams for live streaming via popular protocols (HLS, etc.), reformats H x W dimensions for different client devices, provides multiple bitrates for dynamic adaptive streaming
- **BE8680** — Companion half-width AMP system for the BE8600 contribution encoder

Modulators

- **BM6500/BM6600** — Standalone 1RU Satellite/Terrestrial modulators
- **BE8650** — Companion half-width satellite or terrestrial modulator for the BE8600 contribution encoder

ASI Multiplexer

- **BE-MUX-5000** — Up to 32 DVB-ASI inputs with 3 ASI outputs or 1 GigE plus 2 ASI outputs