

BE7200/7400 Multi-Channel SD Encoders

The Telairity BE7400 is a scalable, fully programmable, low latency broadcast quality multichannel encoder for standard definition video formats. It uses state-of-the-art compression technology (either H.264/AVC or AVS) to achieve more than twice the compression efficiency of the older MPEG-2 standard. The high-density multichannel BE7400 encoding platform addresses the needs of IPTV providers and other customers for quality SD images in 2 Mbps or less at a highly affordable per-channel price. Like all Telairity encoders, it can be easily upgraded via software to add new or improved features and enhance performance.



BE7200/7400 MultiChannel Economy SD Encoders

Applications

The Telairity BE7200/7400 encoder platforms offer state of the art video compression for standard definition television formats in a dense and cost effective 1 RU form factor.

Applications include:

- IPTV
- Live Streaming
- Surveillance / Monitoring
- Broadcast Distribution
 - Satellite / Cable / Terrestrial

Benefits

Compact 1RU system for broadcast quality video encoding

Handles up to 4 fully independent SD channels, with up to 4 stereo audio programs per video channel

Based on the fully programmable Telairity-1 video architecture; easy software upgrades to improve quality, lower bit rates, add new options, and convert between AVC or AVS codecs

MPEG-4 AAC-LC or -HE option for high audio quality at very low compressed bit rates; Dolby Digital (AC-3) and Dolby E pass-through also supported

"Instant on" startup times

Non-stop design includes dual redundant power supplies.

Options

Breakout cables for external audio inputs (digital and analog)

Composite input

Transcoding (MPEG-2, etc.)

G.703/E3 or DS3 output

Other Models

Single channel available in **BE7110**
1U x 19" x 18" with front panel control

Features and Options

Video Encoding Features

- 2 to 4 fully independent channels with I/O per channel pair (1 & 2, 3 & 4)
 - SDI input with option of outputs: dual DVB-ASI, dual IP, or 1 each
 - Optional Composite input module
- H.264/AVC - High or Main Profile; or AVS-P2
- Input Video Formats: 576i (PAL), 480i (NTSC)
- Output Horizontal Resolutions: 720, 640, 544, 480, 352, 240/288 (CIF)
- Rate Control – 1.0 to 8.0 Mbps; choice of Constant or Variable Bit Rate (CBR, VBR)
- GOP Mode: selectable fixed length or adaptive
- Scene change detection
- Entropy Coding: CABAC or CAVLC per AVC or AVS profiles
- Adjustable Spatial Preprocessing and Deblocking (Loop) Filters

Audio Encoding Features (per channel)

- SD-SDI embedded audio input – per SMPTE 272M
 - Four programs (stereo pairs) per channel: Stereo, Dual Mono, Mono
- MPEG-1 Layer 2 encoding, bit rates: 64 to 384 Kbps
 - MPEG-4 AAC-LC & -HEv2 options for better quality or lower bit rates (to 12 Kbps)
- Dolby Digital (AC-3) and Dolby E pass-through

Control Features

- On-board Flash memory for fast program upload at boot
- Web browser control via Ethernet interface

Output (maximum of 2 per channel)

- MPEG-2 transport stream over DVB-ASI 75 ohm coax (1 or 2/channel)
- IP Transport stream over 10/100 Base-T (1 or 2/channel)

Ordering Information

Part Numbers:

BE7200, BE7400

Contents

- BE7000-series Encoding Platform
- Power Cable: IEC to USA plug; optional Euro plug
- USB flash drive with backup copy of encoder firmware and manual

Requirements

- Web browser control system
- SDI input source video
 - SD SMPTE 259M
- Input cables
 - 75 Ohm coaxial with BNC connector
- Output cables (either or both)
 - 75 Ohm coaxial with BNC connector
 - Cat5/6 Ethernet with RJ-45 connector

About Telairity

Telairity, based in Santa Clara, California designs, manufactures and markets H.264/AVC and other advanced encoding and transcoding solutions for broadcast and professional video applications. Telairity's breakthrough video architecture (Telairity-1™) is the foundation for all its real time encoding products, which combine outstanding video quality with state-of-the-art, video compression based on the AVC (H.264 / MPEG-4.10) standard to achieve the lowest possible bitrates.

Telairity

3375 Scott Blvd., Suite 300
 Santa Clara, CA 95054
 tel 408 764 0270
 fax 408 764 0271
 www.telairity.com

Video Inputs (maximum of 1 per channel)

Input Format: 0, 2, 4 SD-SDI (SMPTE 259M) inputs
 0, 2, 4 Composite analog inputs (option)

Video Input Formats: 4:2:2 for 576i (PAL), 480i (NTSC)

Frame Rates: 30, 29.97, 25, 24, 23.98 frames per second

Video In: Digital: 1 BNC/channel for 75 ohm coax
 Analog Option: 1 BNC/channel with adaptor for RCA

SDI Loop Out: Output BNC per SDI input (only)

Audio Input

Input Format: Embedded in SD-SDI per SMPTE 272M
 Dolby Digital (AC-3) and Dolby E pass-through

External Audio: 2 digital AES + 2 analog L/R stereo pairs per channel (cables optional)

Compressed A/V Output

Output Interface: Digital Video Broadcast – Asynchronous Serial Interfaces (DVB-ASI), 270Mbps, buffered non-inverting
 10/100 Base-T Ethernet for IP

Packet Format: MPEG-2 188-byte Transport Stream (TS) packets in either TS/UDP/IP or TS/RTP/UDP/IP format with optional FEC

Compression Format: H.264 High or Main Profile; or AVS-P2

Compressed Bitrates: User programmable, CBR or VBR, 1 to 8 Mbps/channel

ASI Stream Out: Twist-lock BNC connectors (0, 1, 2 per channel)

IP Stream Out: RJ-45 connectors (0, 1, 2 per channel)

Control

Interface: 1 Ethernet control interface per channel pair with RJ-45 connector via hub (or switch) to Web browser controller

Control Application: Web browser Interface over Ethernet

Network Management: Telairity NMS or standard SNMP

Power Specifications

Input voltage: 100 to 240 VAC (Auto sensing)

Line frequency, Power: 47 to 63 Hz; 61 Watts/channel

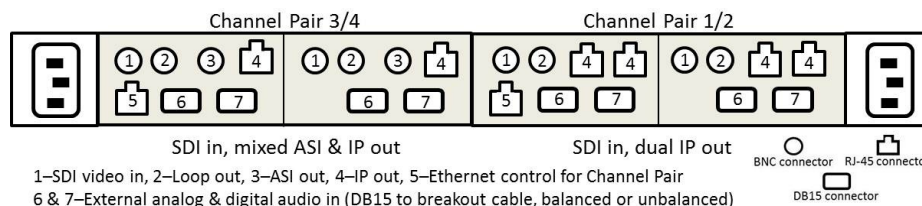
Mechanical Specifications

Dimensions & Weight: 1RU (H) x 19" (W) x 28" (D) rack mountable, 25 lbs.

Environmental Specifications

Cooling: Forced air-cooling side to side

Operating Temperature: -10° to 55°C



BE7400 Back Panel – I/O Configuration Options – Dual-redundant Power Supplies

Copyright 2012 by Telairity. All rights reserved. All products mentioned here are the trademarks or registered trademarks of their respective owners. Telairity reserves the right to make changes without notice and does not assume any liability arising from the application of this product.