

BE6110 1-Channel Mobile Encoder

The Telairity BE6110 is a fully programmable broadcast quality encoder for mobile video and Web TV formats. It uses leading-edge Telairity Mobile Clarity (TMC®) compression technology to achieve industry-best video quality for target devices. Featuring “instant on” for immediate availability, simple front panel control for quick and sure operation, and an adjustable encode latency of 1 or 2 seconds, the cost-effective BE6110 encoding platform addresses the critical needs of broadcasters for high-quality low-bandwidth mobile formats. Like all Telairity encoders, it can be easily upgraded via software to add new or improved features and enhance performance.



Features and Options

Video Encoding Features

- Baseline Profile, H.264/AVC: 1, 1b, 1.1, 1.2, 1.3, 2; AVS: 2.0
 - Supports older 2G and new 3GPP, 3GPP2 networks; 3GPP multirate file format
- Input Video Formats: 576i (PAL), 480i (NTSC) SD or 1080i, 720p HD
- Transcoding, Transrating, Down-sampling, Anamorphic scaling, Deinterlacing
- Output Resolutions:
 - PAL – 352x288p (CIF), 320x240p (QVGA), 176x144p (QCIF)
 - NTSC – 480x272p (WQVGA), 352x240p (CIF), 320x240p (QVGA)
 - Other resolutions including HVGA, HQVGA, QQVGA, SQCIF, etc.
- Rate Control: Constant Bit Rate (CBR) @ 128-2000 Kbps
- Scene change detection with fixed, open, closed, adaptive GOP structures • Spatial preprocessing • Deblocking (Loop) filter • CAVLC entropy coding • All intra- and inter-prediction modes • Qpel • Multiple reference frame prediction • TMC® Chroma • Luma/Gamma correction with De-ringing & Flicker removal

Audio Encoding Features

- Embedded or External audio input ; AC-3 pass-through
 - Four programs (stereo pairs): Stereo, Dual Mono, Mono
- Bit Rates: 12 to 128 Kbps; Sample Rates: 32, 44.1, 48 KHz
 - Audio Codecs: MPEG-1 Layer 2; MPEG-4 AAC-LC or -HEv2
- 2 AES audio and 2 analog stereo pairs (cables optional)

Control Features

- Web Browser control via Ethernet interface
- Telairity NMS or standard SNMP monitoring/control
- Rapid-reset Front Panel with “two button” selection of 4 programmable profiles

Output

- 2 MPEG-2 transport streams over DVB-ASI
- 2 IP Transport streams over 10/100 Base-T Ethernet
 - Pro-MPEG FEC (Forward Error Correction) with RTP transport protocol

BE6110 Mobile & WebTV Encoder

Applications

The Telairity BE6110 Mobile & Web TV encoder platform offers state of the art SD video compression for target devices in a compact and cost effective 1 RU form factor.

Applications include:

- IPTV, OTT
- Live Streaming
- Broadcast Distribution to Mobile
 - Satellite / Cable / Terrestrial
- Supports all digital broadcast standards, including ATSC, DVB-S/S2/SH, DVB-C, DVB-T/T2, DVB-H, CMMB, ISDB-T, DMB-T/H

Benefits

Compact 1RU system for broadcast quality mobile SD video encoding

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

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

“Instant on” five-second startup and two-second restart times

Options

Breakout cables for external audio inputs (digital and analog)

Composite input

Transcoding (MPEG-2, etc.)

G.703/E3 or DS3 output

Other Models

BE6200/6400 – 2-channel/4-channel models in a 1RU 19" x 28" chassis

Ordering Information

Part Numbers:

BE6110

Contents

- BE6000-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, ASI or IP input source video
- Cables (input/output)
 - 75 Ohm coaxial with BNC connector for SDI or ASI
 - Cat5/6 Ethernet with RJ-45 connector for IP

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

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Video Inputs

Input Format:	SDI, ASI, or IP input <ul style="list-style-type: none"> ▪ Composite input option
Video Input Formats:	4:2:2 for PAL and NTSC SD, 720p or 1080i HD
Frame Rates:	Frames per second: progressive mode 23.98, 24, 25, 29.97, 30, 50*, 59.94*, 60*
*720p only	Fields per second: interlaced mode: 50, 59.94, 60
Digital Video In:	1 BNC Connector for 75Ω cable (SDI or ASI) 1 RJ-45 Connector for Cat5/6 Ethernet cable (IP)
SDI Loop Out:	1 BNC Connector

Audio Input

Input Format:	Embedded per SMPTE 272M (SD-SDI); 299M (HD-SDI) Dolby Digital (AC-3) pass-through External Audio: 2 AES + 2 Analog stereo pairs; 110Ω cable
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Compressed A/V Output

Output Interface:	2 Digital Video Broadcast – Asynchronous Serial Interfaces (DVB-ASI), 270Mbps, buffered non-inverting 2 10/100 Base-T Ethernet
Packet Format:	MPEG-2 188-byte Transport Stream packets in formats: TS/UDP/IP, TS/RTP/UDP/IP with optional FEC, RTCP
Compression Format:	Baseline Profile H.264: 1 - 1.3; AVS 2.0
Compressed Bitrates:	User programmable: 128Kbps to 2 Mbps, CBR
ASI Stream Out:	2 BNC Connectors
IP Stream Out:	2 RJ-45 Connectors

Control

Control Application:	Web browser Interface over Ethernet
Direct Presets:	User programmable front panel control
Network Management:	Telairity NMS or standard SNMP

Power Specifications

Input voltage:	100 to 242 VAC (Auto sensing)
Line frequency:	47 to 63 Hz
Power consumption:	70W

Mechanical Specifications

Dimensions & Weight:	1RU (H) x 19" (W) x 18" (D) rack-mountable, 15 lbs.
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Environmental Specifications

Cooling:	Forced air-cooling front to back
Temperature:	Operating: -10° to 55°C; Storage -20° to 60°C
Humidity & Pressure:	≤95% (non-condensing); 86kPa ~ 106kPa



BE6110 Back Panel

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