

Multi Channel Standard Definition AVC Encoder



Quad SD H.264 Encoder for IPTV and Broadcast

The ATEME Kyrion® AS2204 is a multi-channel MPEG-4/H.264 encoder enabling IPTV and Broadcast applications. With support for four channels in a single 19" rack unit, the Kyrion AS2204 allows video service operators to deploy hundreds of SD channels within a modest footprint.

Applying the latest ATEME compression technology, The Kyrion AS2204 produces bandwidth efficient SD streams delivering greater customer reach in IPTV networks and optimizing your Bandwidth in Broadcast making the most of your Networks investments.

The AS2204 supports a second stream for picture-in-picture (PIP) used for mosaic applications, or low resolution format used for convergence application to Mobile TV or Internet TV.

Kyrion AS2204 is a fully programmable hardware design offering a complete set of MPEG-4/H.264 tools including full support for interlaced video (MBAFF). The Kyrion encoder benefits from ATEME's MPEG-4 encoding expertise by enabling state-of-the-art compression algorithms in real-time.

KEY FEATURES

- 4 SD channels MPEG-4 AVC / H.264 in 1 RU
- PiP or low resolution service for each channel.
- MPEG-2 TS over UDP or RTP
- Optional Analog video/audio inputs

BENEFITS

- Compact solution for lower video head end footprint and lower consumption
- Multi-channel video encoder to increase customer reach and to address applications from Broadcast, IPTV to Mobile TV
- Integrated with DataMiner NMS solution for redundancy

VIDEO SPECIFICATIONS

Video Compression

4 independent SD channels MPEG-4 AVC/H.264 - Main and High Profile up to Level 3.
Options and License:
- Second stream for low resolution channel or Picture in Picture on each channel.

Video formats

SD: 576i and 480i

Encoding bit rate

SD: 0.5 to 10 Mbps per channel.

Resolutions

576i x 720, 576, 544, 480 and 352 pixels
480i x 720, 640, 576, 544, 480 and 352 pixels

Frame rates

576i @ 25 Hz, 480i @ 29.97 and 30 Hz

Picture in Picture or Low resolution

Resolutions: 288x352, 240x352, 144x176, 120x176, 96x128, 96x96.

Video Processing

Fixed or adaptive configuration
Automatic I frame insertion
Automatic scene cut detection
Multi-pass look-ahead CBR and Capped VBR
Linear and nonlinear spatial filtering*
Inverse telecine (3:2 pull-down)
Logo insertion

Ancillary data and signaling

Closed captioning compliant with EIA-608, SMPTE 334 and standard ATSC.
DVB Teletext/CEEFAX
Vchip parental control
VITC Time code
Wide Screen Signaling (WSS)
Active Format Description (AFD)

Digital Program Insertion (DPI)*

SCTE35 insertion via SCTE104 triggers or GPIO

Standard: MPEG-2 TS / DVB / ATSC/ ISDB

AUDIO SPECIFICATIONS

Number of Channels

Native Encoding up to 8 stereo pairs.

Compression formats

MPEG-1 Layer II
MPEG-2/MPEG-4 AAC-LC
HEV1-AAC, HEV2-AAC (optional)
Dolby Digital E, AC.3/EAC.3 pass-through.

Sampling frequency: 32, 44.1, 48 KHz

OUTPUT TRANSPORT LAYER SPECIFICATIONS

MPEG-2 Transport Stream over UDP/IP or RTP/UDP/IP
RTP/RTSP over UDP
Unicast / multicast streaming

INPUTS / OUTPUTS INTERFACES

Video Input

4 SD-SDI (SMPTE 259M-C)
Option :
4 analogue video inputs composite or component.

Audio Input:

Embedded in SD-SDI (up to 8 stereo channel pairs SDI input)
Options:
- AES-EBU input up to 8 stereo pairs.
- Analog input up to 16 Audio balanced (-10 dBV to +20 dBV/600 ohms)

Output Interfaces

- 4 Gigabit Ethernet ports (100/1000 BaseT connectors): 2 ports for service streaming, 2 port out-of-band for management.

Discreet I/O*

Alarms and synchronization triggered on GPIO DB-9 connector.

CONFIGURATION AND MANAGEMENT

- DataMiner Networks Management System
- SNMP (MIB v2c) with remote SNMP supervisor
- Embedded web-server configuration
- Front panel with live video "On screen Display" to monitor the 4 video input.

PHYSICAL

Dimensions 19" 1-RU (482x44,5x 508 mm /19"x1.75"x 20")
Weight 7.5 kg/16.5 lbs

ENVIRONMENTAL

- Cooling air flow from right side to left side
- Operating temperature 5 to 40 °C / +41 ° to +104 °F
- Storage temperature -20 to 70 °C / +32° to +158 °F
- Operating humidity 5 to 90% (non condensing)
- Input voltage range 100-240 VAC, 50/60 Hz
- Typical consumption 80 W

CERTIFICATIONS

ROHS
CE and FCC class B Certifications, ECM Compliancy:
- EN 55022: 2006,
- EN 55024: 1998 / A1 : 2001 / A2 : 2003,
- FCC PART 15 Class B: 2006,
- EN 61000-3-2: 2000 / A2 : 2005,
- EN 61000-3-3: 1995 / A1 : 2001 / A2 : 2005,
Safety:
- EN/UL/CA 60950-1

*Contact Factory for availability