



UE-9410/9420/9440 Multi-Channel H.264 SD Encoder

The UE-9410/9420/9440, Scopus' 2nd generation H.264 SD encoder, leverages the most advanced video and audio encoding technology to provide highest video and audio quality at lowest bit rates. It combines IP and ASI outputs for maximum usage functionality, ASI cascading capabilities and optional DVB scrambling

Model Description

- UE-9410 - Single Channel SD H.264
- UE-9410H - Single Channel H.264 HD upgradeable
- UE-9420 - Dual Channel SD H.264
- UE-9420H - Dual Channel H.264 HD upgradeable
- UE-9440 - Quad Channel H.264 SD

Applications

The UE-9410/9420/9440 is ideal for IPTV; satellite contribution and distribution applications; cable TV headend applications; Telco network applications; terrestrial broadcast and direct broadcast satellite (DBS).

Products Highlights

- Up to four H.264 encoding channels
- HD upgradeable (UE-94x0H - software license)
- CBR or capped VBR support
- Up to four H.264 Triplepass™ statistical multiplexing channels in 1RU (software license)
- Simultaneous IP and ASI outputs
- Up to 8 stereo channels or 16 mono channels
- Advanced multiplexing capabilities for cascading and multi-services
- Management via embedded Web server, external SNMP and local front panel
- Support SCTE 35 cue messages insertion
- Support DVS 714 H.264 DPI stream preparation
- DVB/ATSC compliance

Business Benefits

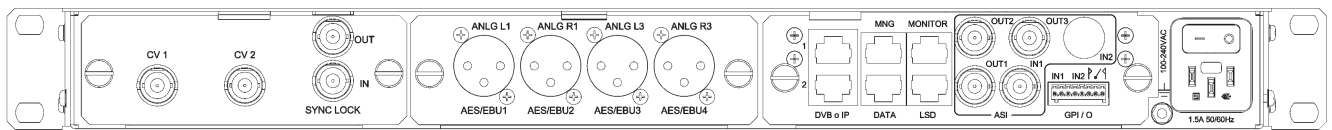
Advanced compression capabilities yield optimum video quality at lowest bit rates

Excellent bandwidth utilization enables broadcast of more channels in available bandwidth

Multi-channel encoding reduces operating costs

IP and ASI outputs for operational flexibility

Integrates with Scopus Eldorado NMS for central management and control



UE-9410/9420/9440 Product Specifications



Inputs

Video

- Video formats: NTSC/PAL
- Digital input: SDI
- Analog inputs: Composite
- A/D resolution: 10-bit

Video Resolution

- Horizontal: 720, 640, 544, 528, 480, 352

Vertical:

- NTSC-480, 240
- PAL-576, 288

Video Aspect Ratio

- 4:3 and 16:9

Audio

- Up to 8 stereo or 16 mono channels
- Input format: Analog/AES-EBU/embedded
- Integrated sample rate converter (SRC)

Sync-Lock

- Black burst input
- Loop-through to feed other equipment

ASI Input

- Built-in multiplexer for encoder cascading
- Passive loop-through for cascading redundancy (optional)
- Up to 50 Mbps

Data

- Asynchronous RS232 up to 115Kbaud
- MPE (Multi Protocol Encapsulation) up to 20Mbps
- DVB subtitles via ASI input

Video Pre-Processing

- Analog/digital TBC (Time Base Corrector)
- Automatic frame re-sizing
- Scene cut detection

- Motion compensated temporal filter (MCTF)

Video In-loop Processing

- De-blockeig filter

Processing

Video Encoding Formats

- H.264 MP@L3

Video Encoding Rate

- 0.3 to 15 Mbps

Encoding Rate control

- CBR, Capped VBR
- VBR

GOP Structure

- Fixed or adaptive GOP

PiP Video Encoding Formats

- H.264 MP@L3
- 96x96, 192x192, 128x96, 176x144, 320x240

VBI Processing

- CC
- WSS
- Teletext (WST)
- VPS
- AMOL
- TV Guide

Statistical Multiplexing mode (Optional)

- Incorporated in Scopus's xMUX-9000™ closed-loop Statistical multiplexing Solution
- Triplepass™ look-ahead mechanism

Audio Encoding Formats

- MPEG-1 Layer 2
- Dolby Digital™ 2.0 (AC-3) (optional)
- MPEG-2 AAC LC (optional)
- MPEG-4 HE-AAC v1 (optional)
- MPEG-4 HE-AAC v2 (optional)
- Dolby Digital™ 5.1 pass-through
- Linear audio pass-through (optional)
- Dolby-E pass-through (optional)

Audio Mode

- Stereo, joint stereo, single channel, dual channel
- Sampling rates: 32K, 44.1K, 48K

Encoding Rate

- MPEG-1 Layer 2 - 64 Kbps to 384 Kbps
- Dolby Digital™ 2.0 (AC-3) - 56 Kbps to 640 Kbps
- AAC-LC - 64 Kbps to 192 Kbps (stereo)

Output

DVB/ATSC Interface

- 3xDVB-ASI outputs

Output Rate

- Up to 60Mbps

DVB scrambling (optional)

- BISS mode 1, BISS-E

DVB-PDH (Optional)

- Interface: ATM (AAL-1)
- Data rate: DS3, E3

Telecom G.703 (Optional)

- Unframed E1, E2, E3
- 188 bit / 204 bit FEC

IP Output

- Dual GbE IP output, RJ-45, auto negotiation, auto MDI/MDXI crossover
- TOS, TTL configurable values
- UDP/RTP
- Pro MPEG - FEC CoP3-r2 (optional)
- Supports M-SPTS

Control and Monitoring

Remote

- Web-based management
- SNMP

Local

- Graphical easy-to-use front panel with quick access keys and alphanumeric keypad

SW Upgrade

- Easy-to-use FTP (File Transfer Protocol)

Dry contact alarms (GPI)

- 1 output for various status and faults

Presets

- Up to 16 different configurations

Physical Characteristics

Size

- 1RU (19" rack)
- Dimensions (H x W x D): 4.4 cm x 43.9 cm x 48.9 cm (1.75" x 17.1" x 19.1")

Weight

- 5 kg (10 lbs)

Power

- Voltage 90-260VAC, -48 DC (optional)
- UE-9410 - 60W (max)
- UE-9420 - 94W (max)
- UE-9440 - 104W (max)

Environment

Temperature

- Operating: 0°C to +50°C
- Storage: -20°C to +70°C

Humidity

- 85% non-condensing

Compliance

- EMC
- FCC part 15
- EN55022

- EN55024

Safety

- EN 60950

USA and Canada
Tel: +1 609 9878090
Fax: +1 609 9878095
www.scopus.net
info_us@scopus.net

Argentina
Tel: +54 11 49823537
www.scopus.net
info@scopus.net

Brazil
Tel: +55 12 39239208
www.scopusbrasil.com.br
scopusbrasil@scopusbrasil.com.br

China
Tel: +86 10 65880035/6/7
Fax: +86 10 65880039
www.scopus.cn
info@scopus.cn

India
Tel: +91 22 67939291
Fax: +91 22 67939299
info@scopus.net

Israel
Tel: +972 3 9007777
Fax: +972 3 9007888
www.scopus.net
info@scopus.net

Japan
Tel: +81 3 57787073
Fax: +81 3 5778 7676
info-japan@scopus.net

Russia
Tel: +7 495 5404608
Fax: +7 495 5404608
www.scopus.ru
info@scopus.ru

Thailand
Tel: +66 81 936 9465
info@scopus.net

UK
Tel: +44 208 6106038
Fax: +44 208 6106818
info@scopus.net

Professional Services:
(Tech Support)
Tel: +972 3 9007800
Fax: +972 3 9007866

SVN 0908

The above features apply to the UE-9410/9420/9440 encoder.

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