



ERICSSON AVP 4100 ATSC INTEGRATED SYSTEM



Web user interface controlled encoding and statistical multiplexing system in a box

The Ericsson AVP4100 ATSC Integrated System provides a cost-effective, flexible implementation in support of ATSC Broadcast Operators by combining encoding and statistical multiplexing functionality into a single 1RU platform.

This solution is much easier to implement, more operationally efficient, and less expensive (compared to multi-box 'mix and match' combinations), while maintaining the high quality video that Ericsson is known for.

Initial installation is straightforward, requiring no specialist integration knowledge. Subsequent operation is simple, via an ergonomic Web user interface, which is designed for simplicity of use.

PRODUCT OVERVIEW

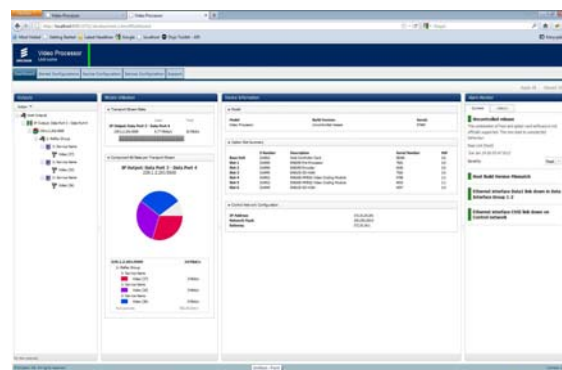
Industry leading MPEG-2 and MPEG-4 AVC encoding with integrated Reflex™ statistical multiplexing and PSIP Carouselling

- New industry leading HD picture quality
- Compact 1 RU form factor
- Front panel confidence monitor gives instant system status
- Choice of configurations for SD and HD
- Built on the new Ericsson AVP platform, with modular architecture, allowing for equipment re-use, on-site upgrades and servicing

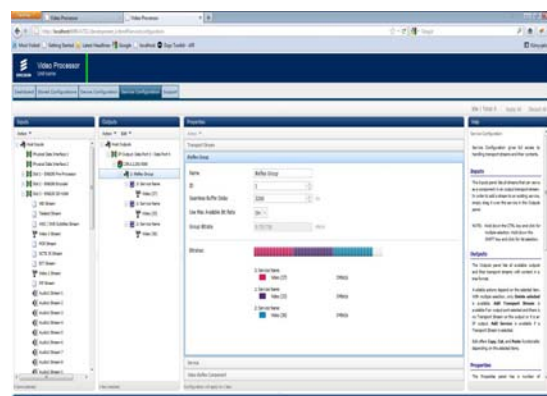
DEPLOYMENT

- Simple to setup and simple to operate, from a versatile web interface
- No specialized operators needed to install, configure or use
- Ease of redundancy with legacy encoding systems provided by separate ASI smart switch
- Ability to insert null packets for downstream harvesting by M/H systems

USER INTERFACE



Dashboard display (above) shows a summary of current system status. Service display (below) allows unit reconfiguration.



HARDWARE OPTIONS

SD MPEG-2 Encoder EN8100 (USA only) **(VP/HWO/EN8100, FAZ 101 0118/8)**

- The EN8100 is the best SD MPEG-2 compression solution delivering up to 20 percent saving over previous generations. It is ideally suited to demanding low bit-rate ATSC applications.

HD MPEG-2 Encoder EN8180 (USA & Korea)* **(VP/HWO/EN8180, FAZ 101 0118/70)**

- The EN8180 is Ericsson's latest HD MPEG-2 encoder offering up to a 33 percent saving in bit-rate over the previous generation. It is the ideal solution for ATSC.

SD MPEG-4 Encoder EN8130 (Korea only) **(VP/HWO/EN8130, FAZ 101 0118/69)**

- The EN8130 is Ericsson's latest SD MPEG-4 AVC encoder a 15 percent saving in bit-rate over the previous generation. It is the ideal solution for ATSC.

ASI I/O module **(VP/HWO/ASI2IN2OUT, FAZ 101 0118/5)**

- One slot per module, up to two modules per chassis.
- 2 x ASI I/O.

External Synchronization Module **(VP/HWO/EXTSYNC, FAZ 101 0118/10)**

- Supports synchronization of all encoders in the chassis.
- 10MHz or HSYNC operation.

* New premium quality option available. Contact your Ericsson representative for details.

SOFTWARE OPTIONS

Clarus™ Noise Reduction for EN8100 **(VP/SWO/SDMP2/NR, FAZ 101 0118/16)**

- Four levels of professional-grade adaptive noise reduction to address the most demanding noisy video sources.

Clarus™ Noise Reduction for EN8130 **(VP/SWO/SD/MCTF, FAZ 101 0118/50)**

- Four levels of professional-grade adaptive noise reduction to address the most demanding noisy video sources.

Clarus™ Noise Reduction for EN8180 **(VP/SWO/HD/MCTF, FAZ 101 0118/51)**

- Four levels of professional-grade adaptive noise reduction to address the most demanding noisy video sources.

Reflex Statistical Multiplexing **(VP/SWO/REFLEX, FAZ 101 0118/15)**

- Enables Reflex Statistical Multiplexing.
- One license required per encoder module.

Dolby® Digital Stereo Encoding **(VP/SWO/DOLBY/AC3, FAZ 101 0118/12)**

- Enables one pair of Dolby Digital (AC-3) stereo audio encoding.
- Three licenses enable 5.1 encoding.

AAC Encoding **(VP/SWO/AAC, FAZ 101 0118/55)**

- Includes support for AAC-LC, HE AAC and HE AACv2.
- Three licenses enable 5.1 encoding.
- Up to six pairs per encoder module can be supported.

ALC Automatic Loudness Control **(VP/SWO/ALC, FAZ 101 0118/113)**

- This feature corrects sustained audio level mismatches between interstitials and main program content.
- Each license enables ALC for one audio pair of encoding in any audio format.
- Three licenses enable ALC for 5.1 encoding.



SPECIFICATIONS

MPEG-2SD/HD and MPEG-4 AVCSD Video and Audio Encoder Option Modules

One to six MPEG-2SD/HD and MPEG-4 AVC SD
encoder option modules

MPEG-2SD/HD and MPEG-4 AVC SD Option Module Inputs

Video

HD/SD-SDI serial digital video

HSYNC support for single PCR operation (option)

Input level 800mV ptp+/- 10 percent

Return loss > 15dB, 10 MHz to 270MHz

Audio

Up to eight stereo pairs embedded on HD-SDI

Up to four stereo pairs via AES EBU (connector via
D-Type to XLR)

Supports both balanced (AES3) and unbalanced
(AES3id) digital audio inputs

48kHz sampling rate

Video Encoder

MPEG-2 MP@ML Encoding

0.256 Mbps to 15 Mbps

"Pixel Perfect" fully exhaustive motion estimation

Vertical Resolutions 576, 288 (PAL), 480, 240 (NTSC)

Horizontal Resolutions 720, 704, 640, 544, 528, 480,
352

GOP processing includes adaptive GOP structure and
adaptive GOP length

Fully configurable legacy modes to ensure
interoperability with all generations of deployed set-top
boxes

Audio Encoder

Dolby® Digital (AC-3)

Encoding rates from 56 kbps to 640 kbps (option) -
maximum of three pairs

MPEG-2 AAC-LC (option), up to six stereo pairs

MPEG-4 HE-AAC v1 (option), up to six stereo pairs

MPEG-4 HE-AAC v2 (option) up to six stereo pairs

Pass through of pre-encoded Dolby® Digital
(AC-3) 1 to 5.1 channel

VBI

Closed captioning EIA-608, EIA-708 and SCTE 20

Advanced Pre-processing

Adaptive bandwidth

Clarus™ professional grade adaptive spatial and
temporal noise reduction offering four adaptive levels
(option)

Scene cut detection and I frame insertion

Frame re-synchronization

Features

Internal test tone and test pattern generation

Auto switching on loss of input source to test pattern,
colored image, last good video frame with selectable text
message

Physical and Power

Dimensions (H x W x D)

23.50 x 17.40 x 1.75 inches (59.69 x 44.20 x 4.45 cm)

Weight

8.0 kg (17.6 lbs) unpopulated

Input Voltage

100-240 VAC 50/60 Hz

Input Power

40W (chassis only)

Up to 350W (depending on option modules fitted)

Environmental Conditions

Operating Temperature

-10°C to +50°C (14°F to 122°F)

Storage Temperature

-40°C to +85°C (-40°F to 185°F)

Relative Operating Humidity

10% to 90% (non-condensing)

Compliance

CE marked in accordance with EU Low Voltage and
EMC Directives

EMC Compliance

EN55022, EN55024, AS/NZS3548, EN61000-3-2 and
FCC CFR47 Part 15B Class A

Safety Compliance

EN60950, IE60950

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