



IPLEX™ VIDEO PROCESSING PLATFORM BY ERICSSON

Video Processing Platform

The iPlex™ is a high density, multi-functional, high performance IPTV video processing platform. It is designed for the unique requirements of telco operators, and is also suitable for cable and satellite operators looking to augment their service delivery using IPTV over DSL infrastructure.

The iPlex Video Processing Platform has a compact 1RU form factor with up to eight encoded or six transcoded channels, making it an ideal choice for small or large headend deployments alike. The iPlex supports a comprehensive set of stream processing options, including MPEG-2 SD encoding, MPEG-4 AVC SD and HD encoding, and MPEG-2 to MPEG-4 transcoding for SD and HD streams. The platform's modular design allows service providers to upgrade functionality and add new services incrementally, avoiding costly headend upgrades. The iPlex is also unique in its support of multiple network interfaces and multiple program outputs, allowing it to be deployed in a mixture of Ethernet, ATM, PON or FTTN environments.

The iPlex Video Processing Platform offers service providers the most advanced video and audio compression technology available today and is part of Ericsson's portfolio of products including receivers, decoders and descramblers, all seamlessly integrated into a complete headend system with nCompass Control by Ericsson.

PRODUCT OVERVIEW

Market Leading Performance

Extensive video pre-processing and an array of tools to fine tune the encoding process allow service providers to offer a superior picture quality, even with challenging feeds. A proven history of providing customers with in-field performance improvement upgrades over time keeps Ericsson's customers ahead of the market.

Flexible, Modular Architecture Allows for Customization and Upgradeability

The iPlex does not confine service providers to specific video architectures. The modular technology of the iPlex allows service providers to obtain a highly customized system now, and adapt it incrementally over time to support their changing needs. The iPlex uses a tray-based system and offers a complete selection of sub-modules that offer service providers MPEG-2 SD encoding, MPEG-4 AVC SD and HD encoding, transcoding and Picture-in-Picture (PiP) service generation simultaneously from the same chassis.

Multi-functional, Dense Video Encoding, Processing, and Routing

iPlex features up to eight MPEG-2 or six MPEG-4 AVC encoders or transcoders, and two built-in Gigabit Ethernet interfaces, all in a compact 1RU chassis. The iPlex is capable of streaming identical programming to multiple network interfaces simultaneously (e.g. GigE, ATM, or ASI) so supports hybrid network environments with ease. The iPlex also supports advanced features for IPTV, such as low resolution encoding, low bit-rate simultaneous PiP service generation, and direct IP Multicasting from the chassis.

BASE UNIT FEATURES

iPlex (N20001)

- Future-proof design makes upgrades and new configurations easy
- NEBS Level 3 certified chassis for telco environment installation
- n+m redundancy with nCompass Control by Ericsson
- Two built-in Gigabit Ethernet interfaces for traffic I/O
- Two built-in Fast Ethernet interfaces and Serial port for management
- Up to eight sub-modules for video processing and additional input and output interfacing
- AC PSU

iPlex (N20009)

- Version of iPlex chassis with -48 VDC PSU

Platform Processing Capacities

- Up to eight MPEG-2 encoders
- Up to four UltraCompression MPEG-4 encoders or transcoders
- Up to six UltraCompression-2 encoders or transcoders
- Up to sixteen ASI interfaces
- Up to eight ATM interfaces

HARDWARE/SOFTWARE OPTIONS

ASI In (N011006)

- Two independent transport stream inputs
- 2x BNC ASI input ports per, software selectable
- 160 Mbps aggregate capacity

ASI Out (N011007)

- Two independent transport stream outputs
- 2x BNC ASI output ports, software selectable
- 160 Mbps aggregate capacity

MPEG-2 SD Encoder (N011032)

- SDI, composite and S-Video video inputs
- MPEG-2 MP@ML encoding at 2 Mbps to 15 Mbps video bit-rate
- 2x stereo audio encoding with MPEG-1 Layer II + Dolby® Digital (AC-3) support
- Up to eight sub-modules per chassis

MPEG-4 AVC SD UltraCompression Encoder (N012008)

- SDI, composite and S-Video video inputs
- MPEG-4 AVC MP@L3 encoding at 0.250 Mbps to 10 Mbps video bit-rate
- Up to 6x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Up to four sub-modules per chassis; dual PMC sub-module

MPEG-4 AVC SD UltraCompression Encoder (SDI) (N012040)

- SDI only video input
- MPEG-4 AVC MP@L3 encoding at 0.250 Mbps to 10 Mbps video bit-rate
- Up to 6x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Software upgradeable to MPEG-4 AVC HD operation
- Up to four sub-modules per chassis; dual PMC sub-module

MPEG-4 AVC HD UltraCompression Encoder (N012010)

- HD-SDI and SDI video input
- MPEG-4 AVC HD and SD encoding
- Up to 6x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Up to four sub-modules per chassis; dual PMC sub-module

MPEG-4 AVC SD UltraCompression Transcoder (N012041)

- Multi-format MPEG-2 / MPEG-4 AVC integrated decoder
- MPEG-4 AVC SD encoding
- Up to 6x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Up to four sub-modules per chassis; dual PMC sub-module

MPEG-4 AVC HD UltraCompression Transcoder (N012043)

- Multi-format MPEG-2 / MPEG-4 AVC integrated decoder
- MPEG-4 AVC HD and SD encoding
- Up to 6x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing

- Up to four sub-modules per chassis; dual PMC sub-module

ATM In/Out (N011014, N011031)

- OC-3c / STM-1 support
- Single-mode Fiber version (N011031)
- Multi-mode Fiber version (N011014)
- SC connector

Ethernet Output SFP Modules (N20005, N20006, N20007)

- Single-mode Fiber SFP (N20005)
- Multi-mode Fiber SFP (N20006)
- Electrical SFP, RJ-45 connector (N20007)

MPEG-4 AVC SD UltraCompression-2 Encoder (N012053)

- SDI, composite and S-Video video inputs
- Best performance MPEG-4 AVC MP@L3 encoding at 0.250 Mbps to 10 Mbps video bit-rate
- Up to 8x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Up to six sub-modules per chassis; single PMC sub-module

MPEG-4 AVC SD UltraCompression-2 Encoder (SDI) (N012054)

- SDI only video input
- Best performance MPEG-4 AVC MP@L3 encoding at 0.250 Mbps to 10 Mbps video bit-rate
- Up to 8x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Software upgradeable to MPEG-4 AVC HD operation
- Up to six sub-modules per chassis; single PMC sub-module

MPEG-4 AVC HD UltraCompression-2 Encoder (N012055)

- HD-SDI and SDI video input
- Best performance MPEG-4 AVC HD and SD encoding
- Up to 8x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Up to six sub-modules per chassis; single PMC sub-module

MPEG-4 AVC SD UltraCompression-2 Transcoder (N012056)

- Multi-format MPEG-2 / MPEG-4 AVC integrated decoder
- Best performance MPEG-4 AVC SD encoding
- Up to 8x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Up to six sub-modules per chassis; single PMC sub-module

MPEG-4 AVC HD UltraCompression-2 Transcoder (N012057)

- Multi-format MPEG-2 / MPEG-4 AVC integrated decoder
- Best performance MPEG-4 AVC HD and SD encoding
- Up to 8x stereo audio encoding and optional multi-channel audio encoding
- Options for audio encoding, PiP service generation, and Clarus™ pre-processing
- Up to six sub-modules per chassis; single PMC sub-module



SPECIFICATIONS

Output Interfacing

2x Ethernet via SFP modules

Streaming

RTP/UDP, unicast or multicast

IPv4, IPv6 supported

VLAN tagging

Management

2x Electrical Ethernet (10/100BaseT)

SNMP v1/v2/v3, HTTPS, SSH, Telnet protocols supported

User management via front panel, web browser, command line, serial console port

nCompass Control by Ericsson support with device level n+m redundancy

Physical and Power

Dimensions (H x W x D):

597 x 442 x 44.5 mm
(23.50 x 17.40 x 1.75")

Weight

11.14 kg (24.5 lbs) (fully-configured)

Input Voltage

100 VAC to 240 VAC, 50/60 Hz @ 6 Amps

Environmental Conditions

Operating Temperature

0°C to +45°C (32°F to 113°F)
0°C to +35°C (32°F to 95°F)
(Five or six UltraCompression-2 modules)

Storage Temperature

-40°C to +85°C (-40°F to 185°F)

Relative Operating Humidity

10% to 90% (non-condensing)

Compliance

Network Equipment Building System (NEBS) Level 3 Certified

Safety:

UL60950 3rd edition, CSA 950 EN60950, IEC 60950 CB Certificate

Emissions:

EN 55022A, CFR47 PART 15A (FCC)

Immunity:

NEBS GR-1089-Core Level 3, EN55024, EN55082-1, EN300-386

Environmental:

NEBS GR-63-Core Level 3, ETS 300 019-2-x compliant

Transportation and Handling: ISTA-2A

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