ERICSSON RX9004

UHD HEVC Professional Decoder

The Ericsson RX9004 is a UHD (4k) HEVC professional decoder specifically designed to meet the needs of the contribution market.

Interest in providing UHD (4k) services and live sports coverage in UHD is rapidly growing. Until recently, live UHD contribution links have used MPEG-4 AVC compressions solutions which encode the UHD video as four HD quadrants. However, these solutions are likely to be rapidly superseded as HEVC encode solutions that can process UHD as a single picture. Such solutions must be able to generate sufficiently high bit-rates to provide the picture quality required for premium events coverage. The RX9004 fulfils the need for a professional decoder to complement the capabilities of the UHD HEVC Contribution encoders for high quality video applications.

PRODUCT OVERVIEW

UHD HEVC Decode

The RX9004 can decode UHD (4k) HEVC compressed streams, whether they be 4:2:0 or 4:2:2, 8 bit or 10 bit, and produce an uncompressed output via four 3G SDI outputs.

High Bit-rate / High Quality

For the very highest quality contribution links, even with the use of HEVC encoding, bit-rates greater than 60 Mbit/s may be required. The RX9004 can decode compressed video components of up to 100 Mbit/s.

Low latency

Having low end to end latency is often an important requirement for live contribution links. So the introduction of latency has been minimized in the design of the RX9004.

HDR and WCG

UHD (4k) services are expected to rapidly evolve to include High Dynamic Range (HDR) and Wider Color Gamut (WCG). The RX9004 is future proofed and will support the relevant HDR and WCG standards as they are formalized.

UNIT FEATURES

RX9004 – Distribution Receiver

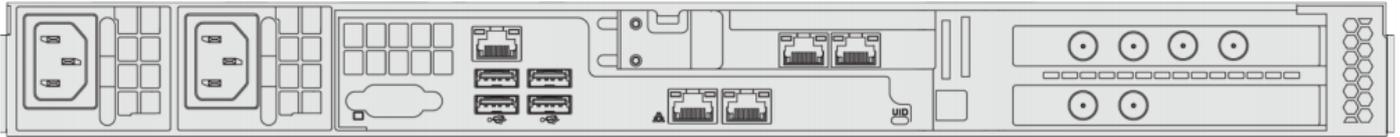The following features are available as standard:

- ASI or IP input
- 4 x 3G SDI outputs
- Supports HD or UHD video
- HEVC Main, Main 10, Main 4:2:2 10 Level 5.1
- Audio codecs
  - LPCM Audio pass through
  - Dolby E pass through
  - MPEG-1 Layer II
- Front panel control
- Web based user interface
- Dual hot swappable power supplies

SAMPLE CONFIGURATION

SPECIFICATIONS

Input Interfaces

ASI Transport Stream Input

Connector: 1x BNC (F) 75 Ohm

Max. input rate: 208 Mbps

Packet length: 188/204 byte packets

Standard: EN50083-9

IP Input

Connector: 4 x RJ 45

Format: 100/1000BaseT

Max. input rate: 208Mbps

Video and Audio Options

Video Formats

2160p50, 2160p59.94
1080i25, 1080i29.97, 720p50, 720p59.97

Video Encoding

HEVC Main / Main 10 / Main 4:2:2 10
Level 5.1
Up to 100 Mbit/s

Audio Decoding

MPEG-1 Layer-II audio decode

Dolby Digital® Pass-through

Dolby®E pass-through*

Linear PCM decode

Audio sampling rate: 48 kHz

Outputs

Connector: 4x BNC 75 ohms

3 Gbps HD-SDI standard: SMPTE 424M

HD-SDI standard: SMPTE 292M

Embedded Audio: SMPTE 299M (HD)

Control

Front panel keypad and LCD

Web browser interface

Physical and Power

Dimensions (W x D x H)

440 x 597 x 44mm
(17.2 x 23.5 x 1.75" approx.)

Input Voltage

110 VAC / 240 VAC

Power Consumption

600 Watt max.

Cooling

Integrated fans

Environmental Conditions

Operating Temperature

0°C to 50°C (32° to 122°F)

Storage Temperature

-20°C to 65°C (4° to 150°F)

Relative Humidity

5% to 95% (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

* This feature may not be available in the initial release