



ERICSSON RX8305

Distribution Receiver

The Ericsson RX8305 Distribution Receiver is the perfect receive device for distribution of video services throughout large networks. The RX8305 receiver provides the core capabilities that every broadcaster needs by combining a DVB-S2 capable satellite input with MPEG-2 and MPEG-4 AVC SD 4:2:0 video decoding. The unit can be equipped with ASI transport stream outputs, SDI digital video outputs as well as standard CVBS analog video outputs.

The unit offers the most up-to-date feature set, providing maximum transmission efficiency through its multi-format SD decoding capability and latest satellite modulation technology allowing broadcasters to take advantage of the combined efficiency gains of DVB-S2 and MPEG-4 AVC.

The RX8305 Distribution Receiver allows easy remote management of the deployed receiver population, either through convenient local front panel operation or an easy-to-use Web-based interface. For large receiver populations deployed in remote or geographically diverse situations the RX8305, as with all other Ericsson receivers, can be controlled through the Director by Ericsson over-air remote control platform - providing centralized control, management and secure CA, dramatically reducing network complexity and management costs.

PRODUCT OVERVIEW

The Perfect Choice for a Large Network

The RX8305 is the perfect receive device for distribution of video services throughout a large network. The RX8305 combines core functionality with the most up-to-date feature-set, allowing maximum transmission efficiency in conjunction with easy remote management of the receiver population.

Increased Distribution Capacity and Efficiency

The RX8305 in combination with Ericsson's MPEG-4 AVC encoders and PREKOR™ Dynamic Pre-correction System leads to a highly efficient video distribution system. Combined with the additional 30 percent increase in channel capacity of DVB-S2 the RX8305 allows operators to achieve three times the amount of content through a transponder.

Multi-format Decoding - a "Safe Choice" for the Future

The RX8305 decodes all major SD video formats in use today providing complete flexibility for daily operations. The versatility that the RX8305 decoder provides makes it a "safe choice" for companies that are beginning to transmit MPEG-4 AVC SD but also continue to work in MPEG-2 SD. With the RX8305 they can migrate at their own pace.

Simplified Control and Lower Cost of Operations

Organizations with large populations of RX8305 receivers and other Ericsson receivers can simplify control by integrating with Director by Ericsson. Director provides remote, over-air, single-view control from a central location, reducing the need for on-site local operators.

BASE UNIT FEATURES

RX8305 – Distribution Receiver

(RX8305/BAS, FAZ 101 0108/36)

The following features are available as standard:

- Single input DVB-S QPSK satellite demodulation
- DVB Common Interface single service decryption
- Director single service decryption
- BISS single service decryption
- Analog SD CVBS video output
- Front panel and Web browser control, with alarm relay

RX8305 – Distribution Receiver

(RX8305/BAS/ASI/SDI, FAZ 101 0108/37)

Functionality as per RX8305/BAS with the addition of:

- Dual, switchable ASI and SDI¹ outputs

Optional features include:

- DVB-S2 QPSK, 8PSK demodulation
- MPEG-2 SD 4:2:0 video decoding
- MPEG-4 AVC SD 4:2:0 video decoding
- Two stereo pair Dolby® Digital audio decoding with 5.1 to 2.0 down-mixing
- AAC audio decoding with 5.1 to 2.0 down-mixing

HARDWARE OPTIONS

Screw Terminal Audio Break-Out Cable (RX8XXX/CABLE/SCRTRM, FAZ 101 0108/23)

- Provides screw terminal connections for analog audio output
- 1x stereo pair per breakout cable

XLR Terminal Audio Break-Out Cable (RX8XXX/CABLE/XLR, FAZ 101 0108/24)

- Provides XLR terminal connections for analog audio output
- 1x stereo pair per breakout cable via 2x XLR connectors

SOFTWARE OPTIONS

Input Options

The RX8305 comes with DVB-S, QPSK support as standard. The unit can optionally be licensed to support the new highly efficient DVB-S2 satellite transmission standard.

DVB-S2 QPSK License (RX83XX/SWO/DVBS2/QPSK, FAZ 101 0108/6)

- Adds DVB-S2 QPSK capability to DVB-S2 input option card

DVB-S2 8PSK License (RX83XX/SWO/DVBS2/8PSK, FAZ 101 0108/4)

- Adds DVB-S2 QPSK, 8PSK capability to DVB-S2 input option card

DVB-S2 Low Symbol Rate License (RX83XX/SWO/DVBS2/LSYM, FAZ 101 0108/5)

- Enables DVB-S2 symbol rate of 1 Msym/s to 5 Msym/s

Decoding Options

The RX8305 is designed to support a range of video decoding standards

MPEG-2 SD Decoding (RX83XX/SWO/MPEG2/SD, FAZ 101 0108/10)

- Enables MPEG-2 SD 4:2:0 decoding

MPEG-4 AVC SD Decoding (RX83XX/SWO/MP2/MP4/SD, FAZ 101 0108/12)

- Enables MPEG-2 and MPEG-4 AVC SD 4:2:0 video decoding

Video Output Options

The RX8305 is always supplied with analog composite video output. The RX8305/BAS/ASI/SDI can additionally be enabled with this option.

SDI Digital Video Output (RX83XX/SWO/SDI, FAZ 101 0108/35)

- Enables SDI digital video output on RX8305/BAS/ASI/SDI unit

Audio Options

The RX8305 comes with MPEG-1 Layer II audio support as standard whenever any video decode option is purchased. A number of additional audio standards can also be ordered.

Dolby® Digital Decode (RX83XX/SWO/AC3, FAZ 101 0108/28)

- Enables decoding of Dolby Digital Audio
- 2x 2.0 (stereo) decoding
- 2x 5.1 down-mix to 2.0 (stereo)

AAC Decode (RX83XX/SWO/AAC, FAZ 101 0108/2)

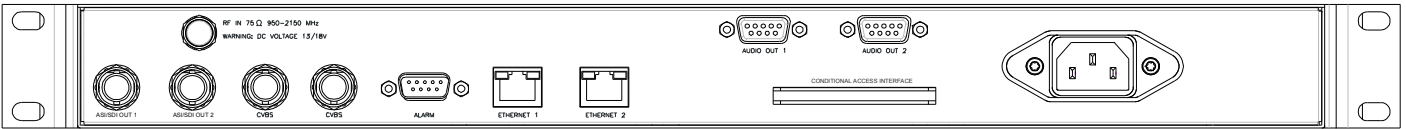
- Enables decoding of AAC-LC and HE-AAC
- 2x 2.0 (stereo) decoding
- 2x 5.1 down-mix to 2.0 (stereo)

Security Options

Password Protection of Web Browser (RX83XX/SWO/PW, FAZ 101 0108/29)

- Enables password protection feature of web browser control

SAMPLE CONFIGURATION



SPECIFICATIONS

Input Interfaces

Satellite Input

Connector: 1x F-Type, 75 Ohm

Modulation: DVB-S QPSK, DVB-S2 QPSK^y, 8PSK^y

Frequency range: 950 MHz to 2150 MHz

Input Level: -25 dBm to -65 dBm

Symbol Rate: 1 Msym/s to 45 Msym/s (DVB-S) 1^y(5) Msym/s to 60 Msym/s (DVB-S2)

Bit-rate: 170 Mbps max. (DVB-S2)

FEC, DVB-S: 1/2, 2/3, 3/4, 5/6, 7/8

FEC, DVB-S2 QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10

FEC, DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10

DVB-S2 FEC Frame: Short Frames, Normal Frames

LNB Power: 13V, 18V or off, 22 kHz on/off

Standard: EN300 421, EN302 307

Conditional Access

Director by Ericsson

Single service Director decryption

DVB Common Interface

Single service decryption

Service pre-filtering

BISS

BISS modes 1 and E

Single service decryption

Video and Audio Options

MPEG-2 SD Decode^y

Profiles: MP@ML

Max video rate: 15 Mbps (MP@ML)

Video format: 480i and 576i 29.97, 25 fps

MPEG-4 AVC SD Decode^y

Profiles: MP@L3

Max. video rate: 12 Mbps

Video format: 480i and 576i 29.97, 25 fps

Video Processing

Aspect ratio conversion (16:9 to 4:3): none, center cut out, letter box, anamorphic - manual/AFD controlled

VBI

Closed captions, DVB Subtitle burn-in, Teletext burn-in
WST, Inverted Teletext, EBU Teletext subtitles and non subtitles, WSS, VITC, VITC in PES, VPS, VITS, NABTS, AMOL 48, AMOL 96, TV Guide, Video index, AFD pass-through

Audio Decoding

MPEG-1 Layer-II audio

Dolby[®] Digital 2.0 decoding^y

Dolby Digital 5.1 down-mix to 2.0^y

AAC 2.0 decoding^y

AAC 5.1 down-mix to 2.0^y

Decoded audio embedded in SDI^y

Sampling rate: 48 kHz

No. stereo pairs: two

Outputs

CVBS

Connector: 2x BNC 75 ohms

Format: NTSC, PAL

Audio

Connector: 2x 9-pin D-type

Analog audio: two balanced stereo pairs

Digital audio: two balanced stereo pairs

Decoded audio gain adjustment

Output Options

SDI/DVB ASI-C (Individually Switchable)^y

Connector: 2x BNC 75 Ohm

SDI Standard: SMPTE 259M

Embedded Audio: SMPTE 272M

ASI standard: EN50083-9

Features

Program selection for ATSC, DVB and MPEG-only streams

One alarm relay

Service cycling through all decodable services*

Control

Front panel keypad and LCD

Director remote control

Ethernet

Dual RJ45 10/100BaseT control interface

Full SNMP control, Web browser interface

Physical and Power

Dimensions (W x D x H)

440 x 375 x 44mm (17.2 x 15.75 x 1.75" approx.)

Input Voltage

110 VAC / 240 VAC

Power Consumption

45 Watt max. (depending on options fitted)

Cooling

Integrated fans

Environmental Conditions

Operating Temperature

0°C to 50°C (32° to 122°F)

Storage Temperature

-20°C to 70°C (4° to 140°F)

Relative Humidity

5% to 95% (Non-condensing)

Compliance

CE marked in accordance with EU Low Voltage and EMC Directives

EMC Compliance

EN55022, EN61000-3-2¹⁰, EN61000-3-3¹⁰, EN55024, CISPR22, FCC CFR47 Part 15B Class A

Safety Compliance

EN60950-1, IEC60950-1, UL60950-1

^y Indicates an option, * Check availability