



# ERICSSON RX9500



## Bulk Descrambler

Ericsson's RX9500 Bulk Descrambler provides Cable, IPTV, and other Direct to Home operators with the capability to efficiently turn-around encrypted and free to air content from satellite platforms. The RX9500 allows operators to demodulate and descramble 10s or 100s of services from multiple satellite transponders within a high density, low rack unit occupancy solution.

The RX9500 forms part of Ericsson's Multi-Platform Headend Solution, interfacing seamlessly with Ericsson's encoders and transcoders. The RX9500 Bulk Descrambler is simple to set up and configure offering the benefit of a single management, control and monitoring solution for the complete turn-around system through Ericsson's nCompass Control platform.

## PRODUCT OVERVIEW

### Channel Density

The RX9500 Bulk Descrambler allows operators to turn-around 10s or hundreds of satellite delivered services within a high density, low rack occupancy solution. The RX9500 can be configured to process up to 6 satellite multiplexes of scrambled or free to air content.

### Common Interface Descrambling

The RX9500 Bulk Descrambler is able to descramble services via DVB Common Interface modules ensuring that all frequently used CA systems can be addressed. The RX9500 allows two CAMs to be used per satellite multiplex—ensuring that a high density of services can be descrambled and allows for multiple CA systems on a transponder.

### Simple Architecture

The RX9500 Bulk Descrambler exemplifies the benefits of a simple architecture. Each satellite multiplex is processed as siloed modules without dependency on other inputs. Each descrambled or FTA channel is output as an easy to manage single program transport stream on IP interfaces allowing the down-stream equipment to effectively process the services.

### One System, One Management Platform

Through Ericsson's Multi-Platform Headend Solution operators can deploy a complete content turn-around solution—where each element can seamlessly interface with the other elements; all monitored and controlled by nCompass Control as a single overarching control platform.

### Why Ericsson

The Ericsson RX9500 Bulk Descrambler provides all the necessary elements to acquire channel content for a DTH turn-around platform. More importantly the RX9500 forms part of a single, fully integrated, managed end-to-end system.

## BASE UNIT FEATURES

### RX9500 – Bulk Descrambler Chassis

(RX9500/BAS/CI/1AC, FAZ 101 0276/15)

Base Chassis Functionality Includes:

- 6x slot, single PSU chassis
- Common Interface CA bulk descrambling
- 2x Ethernet control ports
- 2x GigE Ethernet IP Transport Stream outputs
- Web browser control and SNMP monitoring
- Integration with nCompass Control

## HARDWARE OPTIONS

The RX9500 Bulk Descrambler allows operators to equip and scale their unit for the density they require by fitting up to 6 satellite input/descrambler cards.

### Satellite input Common Interface descrambling card (RX9500/HWO/SAT/CI, FAZ 101 0276/13)

- 1x satellite input
- DVB-S capable
- 2x DVB Common Interface Conditional Access Module slots
- Up to 6 cards per chassis

### Satellite input Common Interface descrambling card (RX9500/HWO/SAT/S2/CI, FAZ 101 0276/16)

- 1x satellite input
- DVB-S, DVB-S2 capable
- 2x DVB Common Interface Conditional Access Module slots
- Up to 6 cards per chassis

## SAMPLE CONFIGURATION



Sample configuration with: 6x satellite input/descrambler cards installed

## SPECIFICATIONS

### Satellite Input

#### Satellite Input and Descrambling module (FAZ 101 0276/13)

Connector: 1x F-Type (F), 75 Ohm

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

Modulation: DVB-S QPSK

Standard: EN300 421

Frequency range: 950 MHz to 2150 MHz

Input level: -25 dBm to -65 dBm

DVB-S Symbol rate: 5 Msyms to 45 Msyms

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

#### DVB-S2 Capability (FAZ 101 0276/16)

Standard: EN302 307

DVB-S2 Symbol rate: 5 Msyms to 45Msyms

Modulation: DVB-S2 QPSK

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

Modulation: DVB-S2 8PSK

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

DVB-S2 FEC frame: Short & Normal frames

DVB-S2 Physical layer scrambling

### Conditional Access

#### DVB Common Interface Multi-service Descrambling

Free to Air service pass-through

FTA PID Pass-through: 232 PIDs Max in addition to Descrambled services

Support for all major CAM modules

Dual CAM support per card

Descrambling of up to 8 services per CAM

Descrambling of up to 64 PIDs per CAM

Service pre-filtering on multiplexes >72Mbps

### Transport Stream Outputs

#### IP Transport Stream Output

Transport encapsulation into IP

2x Electrical Ethernet (10/100/1000BaseT)

Multiple Single Program Transport Stream as IP/UDP - CBR mode

Multi-Program Transport Stream per satellite multiplex as IP/UDP\*

Number of services per chassis: 196 Max

Number of components per chassis: 1024 Max

PCR Regeneration

PAT, PMT, SDT regeneration

PTS, DTS Pass-through

### Management

2x Electrical Ethernet (10/100/1000BaseT)

User management via web browser

Front panel keypad and LCD

SNMP v1/v2/v3 for traps and alarms

Support for nCompass Control\*

### Physical and Power

#### Dimensions (W x D x H)

442.5 x 596.9 x 44mm (17.5" x 23.5" x 1.75" approx.)

#### Input Voltage

100-240VAC 50/60Hz

#### Power Consumption

50W (Chassis only)

28W Max. per descrambler card. Max 6 cards per chassis

#### Cooling

Integrated fan

### 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 Humidity

5% to 90% (non-condensing)

### Compliance

CE Marked in accordance with all applicable EU Directives

#### EMC Compliance

EN55022, EN55024, EN61000-3-2, EN61000-3-3, AS/NZS CISPR 22, ICES-003 and FCC CFR47 Part 15B Class A

#### Safety Compliance

EN60950-1, IEC60950-1, UL 60950-1 and CAN/CSA-C22.2 No 60950-1. NRTL Listed.

\*Check availability