

# MediaKind RX9500



MediaKind 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 MediaKind's Multi-Platform Headend Solution, interfacing seamlessly with MediaKind'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 MediaKind's nCompass management 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. RX9500 can also be equipped to descramble services presented on IP TS input.

### 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 MediaKind’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, as a single overarching management platform.

### Why MediaKind

The MediaKind 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)

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
- Scrambled service pass-through
- Web browser control and SNMP monitoring
- Integration with nCompass Control

### RX9500 – Dual PSU Bulk Descrambler Chassis (RX9500/BAS/2ACFL/CI)

- Dual PSU, flying lead chassis
- 6x slots for descrambling cards

## 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)

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

### DVB-S2 Satellite input and IP TS Common Interface descrambling card (RX9500/HWO/SAT/S2/IP/CI)

- 1x satellite input
- DVB-S, DVB-S2 capable
- MPEG transport stream over input IP
- 2x 100/1000BaseT input (on chassis)
- 2x DVB Common Interface Conditional Access Module slots
- Up to 6 cards per chassis



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

## Specifications

### Satellite Input

<p><b>Satellite Input and Descrambling module</b></p>	<p>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: 1 Msyms to 45 Msyms          DVB-S FEC: 1/2, 2/3, 3/4, 5/6, 7/8</p>
<p><b>DVB-S2 Capability</b></p>	<p>Standard: EN302 307          DVB-S2 Symbol rate: 1 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 &amp; Normal frames          DVB-S2 Physical layer scrambling</p>
<p><b>IP input Capability*</b></p>	<p>Connector: 2x RJ45 (on chassis)          Format: 100/1000BaseT          Up to 2x MPTS Multicast inputs per module</p>

### Conditional Access

<p><b>DVB Common Interface Multi-service Descrambling</b></p>	<p>Free to Air service pass-through          FTA PID Pass-through: 232 PIDs Max in addition to Descrambled services          Descrambling of up to 128 services          Pass-through all wanted services still encrypted          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 &gt;72Mbps</p>
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### Transport Stream Outputs

<p><b>IP Transport Stream Output</b></p>	<p>Transport encapsulation into IP          2x Electrical Ethernet (10/100/1000BaseT)          Multiple Single Program Transport Stream as IP/UDP - CBR mode          Multiple Single Program Transport Stream as IP/UDP—VBR 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</p>
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\*Check availability

## Management

<b>Management</b>	2x Electrical Ethernet (10/100/1000BaseT) User management via web browser Front panel keypad and LCD SNMP v1/v2/v3 for traps and alarms nCompass Support
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## Physical and Power

<b>Dimensions (W x D x H)</b>	442.5 x 596.9 x 44mm (17.5" x 23.5" x 1.75" approx.)
<b>Input Voltage</b>	100-240VAC 50/60Hz
<b>Power Consumption</b>	50W (Chassis only) 28W Max. per descrambler card. Max 6 cards per chassis
<b>Cooling</b>	Integrated fan

## Environmental Conditions

<b>Operating Temperature</b>	-10°C to +50°C (14°F to 122°F)
<b>Storage Temperature</b>	-40°C to +85°C F to 185°F) (-40°
<b>Relative Humidity</b>	5% to 90% (non-condensing)

## Compliance

<b>Compliance</b>	CE marked in accordance with EU Low Voltage and EMC Directives
<b>EMC Compliance</b>	EN55022, EN61000-3-2, EN61000-3-3, EN55024, CISPR22, FCC CFR47 Part 15B Class A
<b>Safety Compliance</b>	EN60950-1, IEC60950-1, UL60950-1