

# TECHNICAL NOTICE

## BISS-CA

MediaKind (formerly Ericsson) RX8200  
Upgrade Procedure FW 8.25.1

Version 1.2 (July 2020)

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## Document version

Version	Date	Comments / Changes
1.0	June 11, 2020	Initial version
1.1	June 25, 2020	Minor corrections Web GUI with decoder S/N corrected
1.2	July 10, 2020	Minor corrections and typos

## 1 INTRODUCTION

BISS-CA is a conditional access system based on open cryptographic standards. It uses a combination of symmetric and asymmetric ciphers to protect the transmitted content and entitle or revoke in real-time any receiver in an interoperable manner.

Eurovision Services (ES) will use the new BISS-CA standard in high-profile transmissions.

This document explains the requisites to upgrade the MediaKind (formerly Ericsson) RX8200 decoder to be compatible with the new BISS-CA standard. This process requires the download of new firmware and must be performed by an engineer with direct access to the units.

## 2 REQUIREMENTS FOR BISS-CA COMPATIBILITY

To be compatible with BISS-CA, it is mandatory that the device includes the board type **1922** “CA Lite”.

This can be verified under *Device Info > Modules*, as shown below.

Slot	Channel Number	Board Type	ModuleID	Name	HW-ID	Serial Number	SW Version	SW Build Time	FW Version	PLD Version
0	0	1900		RX8000	1.7.4	HT9D796G	8.25.0 BETA 1 (Bank 0)	---	0.24.0 [Built: Thu Feb 20 11:12	---
1	0	1928		SAT S2 ACM	---	12052	---	---	---	---
2	0	1934		SFF IP Card	2.4.0	---	3.4.0	---	3.26	0.1.2
3	0	1916		Audio 1	0.2.2	---	---	---	---	---
4	0	1916		Audio 2	0.2.2	---	---	---	---	---
5	0	1915		HD Output	1.2.1	---	---	---	1.5.9	---
7	0	1936		MPEG2/4 Decoder 4i2i2	4.1.0	---	5.9.25255	Oct 8 2019 13:19:23	5.7.25236	1.3.21316
8	0	1922		CA Lite	0.2.0	---	---	---	0.7.0	---
9	0	1930		DownConverter	2.2.0	---	---	Fri Oct 12 14:44:15 2018	v1.30.24753	---
10	0	1910		Control Interface	0.4.0	---	---	---	---	---

Any device with this board can be updated to be compatible with BISS-CA. The process is performed in two steps:

- **Firmware:** the devices must be upgraded to firmware version 8.25.1 or more recent. The current firmware version can be checked in the section *Device Info > Modules*, as shown.

Slot	Channel Number	Board Type	ModuleID	Name	HW-ID	Serial Number	SW Version	SW Build Time	FW Version	PLD Version
0	0	1900		RX8000	1.7.4	HT9D796G	8.25.1 (Bank 0)	---	0.24.1 [Built: Tue Mar 31 09:23	---
1	0	1928		SAT 52 ACM	---	12052	---	---	---	---
2	0	1934		SFF IP Card	2.4.0	---	3.5.0	---	3.26	0.1.2
3	0	1916		Audio 1	0.2.2	---	---	---	---	---
4	0	1916		Audio 2	0.2.2	---	---	---	---	---
5	0	1915		HD Output	1.2.1	---	---	---	1.5.9	---
7	0	1936		MPEG2/4 Decoder 4:2:2	4.1.0	---	5.9.25255	Oct 8 2019 13:19:23	5.7.25236	1.3.21316
8	0	1922		CA Lite	0.2.0	---	---	---	0.7.2	---
9	0	1930		DownConverter	2.2.0	---	---	Fri Oct 12 14:44:15 2018	v1.30.24753	---
10	0	1910		Control Interface	0.4.0	---	---	---	---	---

- **BISS-CA license:** a specific license for BISS-CA must be applied. After registration in the ES website [www.eurovision.net](http://www.eurovision.net), units owned by ES will receive a license free of charge, while those sold by ES can be upgraded for a fee.

### 3 FIRMWARE UPGRADE

Please follow the instructions as described in the Application Note document, which can be downloaded from the following page:

<https://www.eurovision.net/insights/technical/biss-ca-migration-files-download>

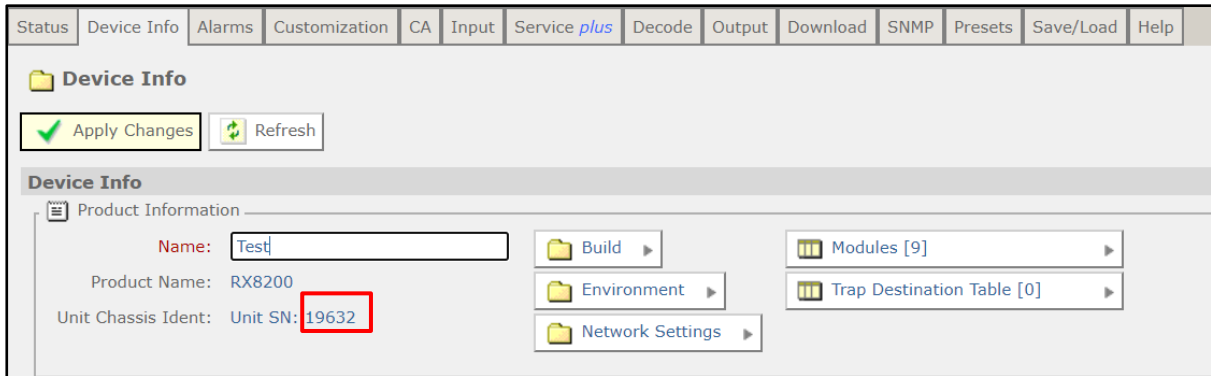
Once the firmware upgrade is complete, *Device Info > Modules* must show 8.25.1 under slot 0.

### 4 DECODER REGISTRATION ON Eurovision.net

Decoders must be registered on the ES web site (<https://www.eurovision.net/biss-ca-migration>) to be authorized to receive BISS-CA encrypted transmissions.

During the registration process, three screenshots are requested:

- **Serial Number:** found under *Device Info* as shown in the following screenshot



Device Info

Apply Changes Refresh

Device Info

Product Information

Name: Test

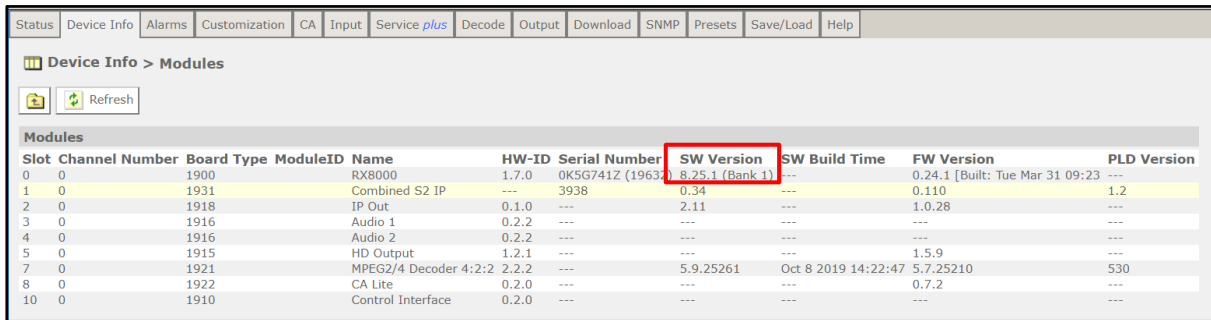
Product Name: RX8200

Unit Chassis Ident: Unit SN: 19632

Build Environment Network Settings

Modules [9] Trap Destination Table [0]

- **Firmware version:** found in *Device Info > Modules* as shown below.



Device Info > Modules

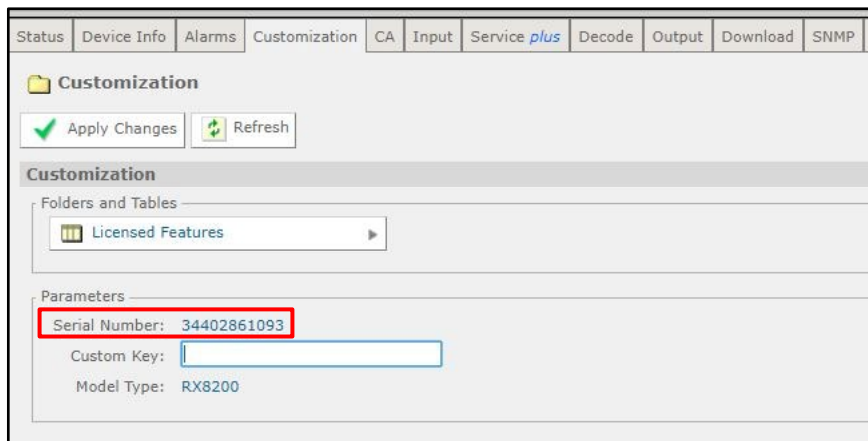
Refresh

Modules

Slot	Channel Number	Board Type	ModuleID	Name	HW-ID	Serial Number	SW Version	SW Build Time	FW Version	PLD Version
0	0	1900	RX8000		1.7.0	0K5G741Z (19632)	8.25.1 (Bank 1)	---	0.24.1 [Built: Tue Mar 31 09:23	---
1	0	1931		Combined S2 IP	---	3938	0.34	---	0.110	1.2
2	0	1918		IP Out	0.1.0	---	2.11	---	1.0.28	---
3	0	1916		Audio 1	0.2.2	---	---	---	---	---
4	0	1916		Audio 2	0.2.2	---	---	---	---	---
5	0	1915		HD Output	1.2.1	---	---	---	1.5.9	---
7	0	1921		MPEG2/4 Decoder 4:2:2	2.2.2	---	5.9.25261	Oct 8 2019 14:22:47	5.7.25210	530
8	0	1922		CA Lite	0.2.0	---	---	---	0.7.2	---
10	0	1910		Control Interface	0.2.0	---	---	---	---	---

Please note that the screenshot above shows a software version that might be different from yours.

- **Customized Serial Number:** also called “Dallas number,” this can be found under section *Customization* as shown below.



Customization

Apply Changes Refresh

Customization

Folders and Tables

Licensed Features

Parameters

Serial Number: 34402861093

Custom Key:

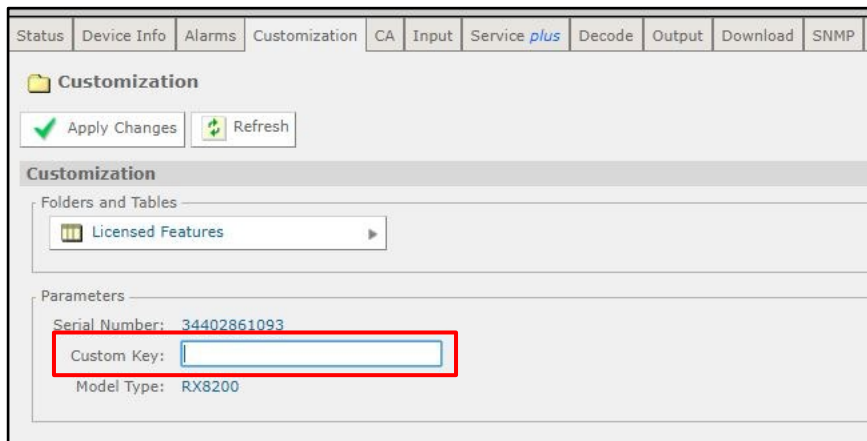
Model Type: RX8200



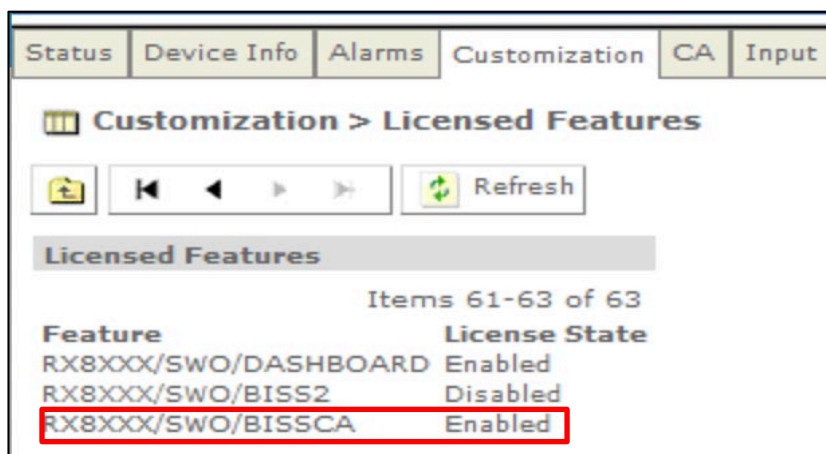
## 5 INSTALLATION OF BISS-CA LICENSE

For units owned or sold by ES, a BISS-CA license will be provided after registration of the decoder in [www.eurovision.net](http://www.eurovision.net)

The license will be sent by e-mail to the contact defined by the broadcaster during the registration. It consists of a *custom key* that must be set in the corresponding field under the “Customization” section. Click on “Apply Changes” to apply the license.



After the license has been applied, the unit must be rebooted and allowed to boot up, as the BISS-CA public key (called “Buried Key” in the interface) will be generated after the reboot. Notice that this period can last from a few minutes to up to 30 minutes. The unit must not be rebooted during this time, or the key generation process will restart. A license applied correctly will be visible under *Customization > Licensed Features*.

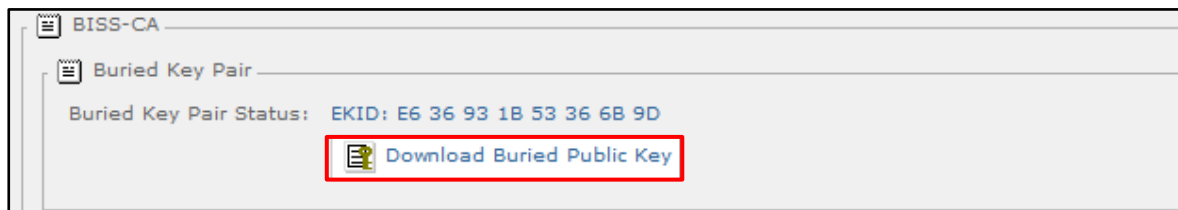


BISS-CA status can be checked under section *Advanced View > CA > BISS-CA*. The *Buried Key Pair Status* must display a value once the generation process is over. **Please note that this is not the same as the decoder public key.**



## 6 EXTRACTION OF PUBLIC KEY

Under section Advanced View > CA > BISS-CA > Buried Key Pair, **download the file by clicking on “Download Buried Public Key”**. This file must be uploaded to the ES registration portal, as explained in the “Technical Guidelines for BISS-CA access.”



## 7 CONTACTS

Please report any technical issues with the upgrade to the BISS-CA upgrade team

[BISS-CA@eurovision.net](mailto:BISS-CA@eurovision.net)