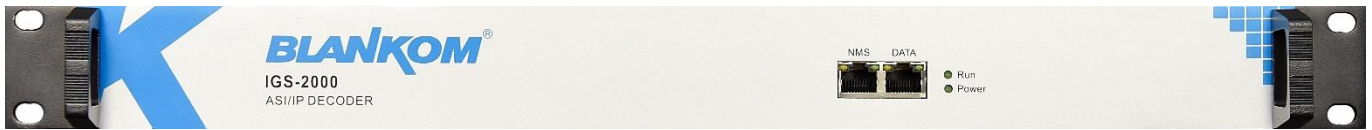


DVB IP/ASI -> SDI Decoder with 2,4,6 ports



Picture with 1 Module installed = IGS-2000

- 2x IP input and 1 IP output
- 2x Bi-directional ASI ports with input or output mode selectable
- 2x HD/SD-SDI decoding output with 2 stereo Audio's embedded in each port
- MPEG-2 and MPEG-4 AVC/H.264 Video Decoding
- MPEG1 Layer2, LC-AAC, HE-AAC, AC3 (2.0/5.1), AC3 Pass-through for Audio
- CC/Subtitle support
- Easy management with Web-Interface
- Embedded Re-multiplexer

BLANKOM IGS is a professional Integrated DVB-Decoder for broadcasters with dual ASI and GigE IP inputs. Output is HD-SDI with max. 2 Stereo pairs (AC3 passing supported) each SDI and ASI as well as IP multiplexed

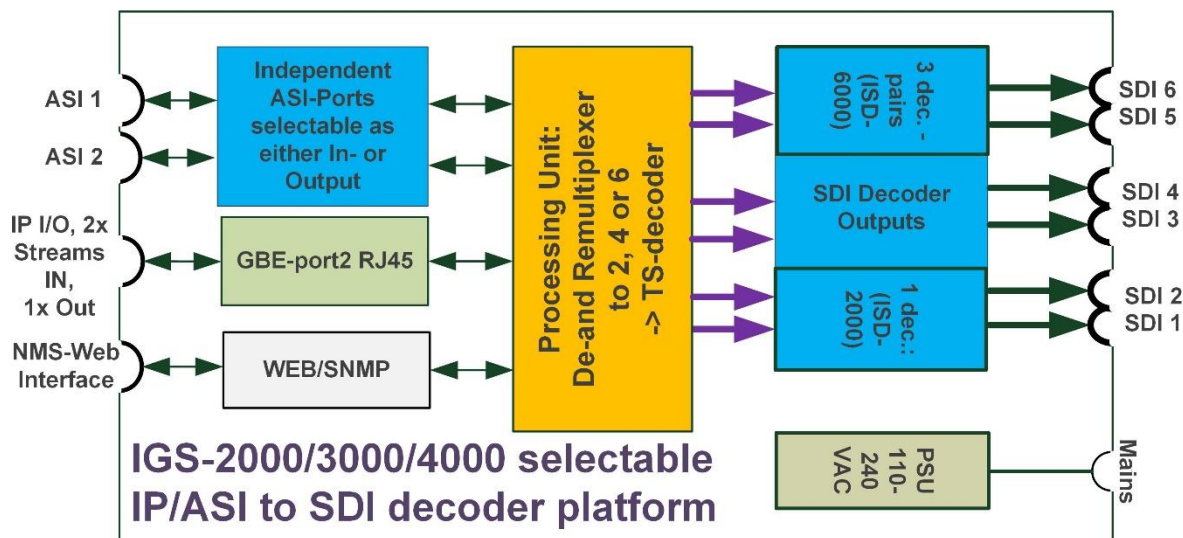
The BLANKOM IGS (Integrated SDI- Decoder) is a designed broadcast grade companion unit for MPE-4400 Encoder (H= HDMI, S=SDI versions)

After de-multiplexing and decoded, the content output can be re-passed to ASI, IP as Multiplex.

Its outputs support professional HD/SD-SDI, 2x Stereo Audio embedded for professional needs.

Operation by using the inbuilt comfortable Web-Interface.

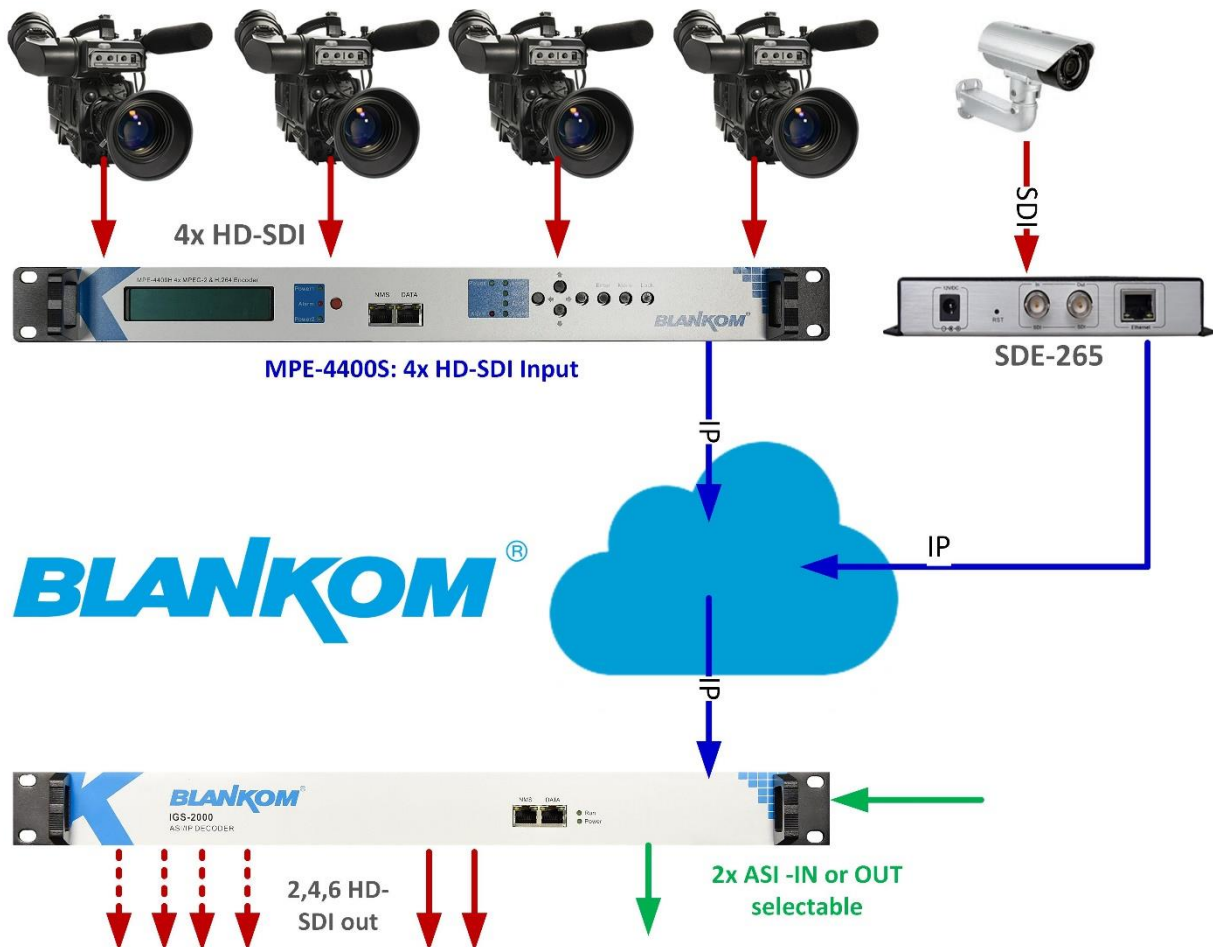
Available with 2, 4 or 6 SDI ports



Technical specs IGS-2000 (add 2 decoder for 4000 & 2 more for 6000):

INPUT	2 IP (MPTS/SPTS, 100M/1000Mbps Ethernet, RJ45, UDP protocol, Unicast/multicast) Max.2x ASI selectable as either In- or Out, BNC 75Ω
DECODING	480i,480p,576i,576p,720p@50/59.94/60, 1080i@50/59.94/60
Video	HD/SD MPEG-2 and MPEG4 AVC/H.264
Audio	dual stereo audios embedded in each port with MPEG1 Layer2, LC-AAC, HE-AAC, AC3 (2.0/5.1), AC3 Pass-through
CONTROL PORT	Ethernet Port 100BaseT RJ45
OUTPUT	0...2x ASI as In- or Output on BNC interfaces selectable
Video	2x HD/SD-SDI (BNC) (4 / 6 for 4000/6000 Model)
IP-Out on GbE	1 (2,3) x MPTS outputs per module on GbE RJ45 interface (UDP multicast)
SYSTEM Control	Management: Network (NMS); Web-based Management Ethernet port for CPU/FPGA firmware upgrade
Dimensions	328 mm×482 mm×45mm , 19" 1RU, 2,5 kg
Power	AC 50Hz 220V±10%, Consumption: < 25 W
Temperature	0...45°C (operation), -20...80°C (storage)

Application example:



www.blankom.de info@blankom.de

Quickstart

Important Notes!

This manual is for use by qualified personnel only. Handling this device or system requires special electronic technical knowledge. To reduce the risk of electrical shock or damage to the equipment, do not perform any servicing other than the installation and operating instructions contained in this manual unless you are qualified to do so. This device operates in the given voltage and frequency range without requiring manual adjustment.

Do not open the top case w/o unplugged power source because serious injury or death may be the result! Inside are components under risk from electrostatic discharge. To avoid equipment damages do not touch these components or, observe the respective handling rules!

For continued protection against fire, the fuses may only be replaced by identical fuses with the same electrical specifications which are designed for the corresponding fuse positions.

No part of this publication may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation or adaptation) without the written permission from BLANKOM / IRENIS GmbH.

IRENIS GmbH reserves the right to revise this publication and make changes in its content from time to time, whereby it shall not be obligatory for IRENIS GmbH to provide notification of such revision or change.

IRENIS GmbH provides this manual without warranty of any kind, neither implied nor expressed, this includes also any warranties regarding the merchantability and fitness for a particular purpose. IRENIS GmbH may improve this manual or make changes in the products described herein at any point of time.

Anmerkung:



Alle von uns veröffentlichten Betriebsanleitungen richten sich an den Antennen- und IT-Fachmann, der über grundlegende Kenntnisse der Empfangs-, Netzwerk- und Anlagentechnik verfügt. Die Einhaltung aller relevanten Vorschriften und Richtlinien für den Aufbau und Betrieb von solchen Anlagen obliegt dem Installateur und/oder dem Betreiber. Insbesondere sind die in den jeweiligen Ländern geltenden Vorschriften und Richtlinien für die Inbetriebnahme speziell für den Stromanschluss und alle mit den Produkten in Zusammenhang stehenden und geltenden Normen und Gesetze einzuhalten.

Remark:



All operating instructions published by us are intended for the antenna and IT specialist who has basic knowledge of reception, network and system technology. Compliance with all relevant regulations and guidelines for the installation and operation of such systems is the responsibility of the installer and/or the operator. In particular, the regulations and guidelines applicable in the respective countries for commissioning, especially for the power connection, and all standards and laws related to the products must be complied with.

Annotation :



Tous les modes d'emploi que nous publions sont destinés aux professionnels de l'antenne et de l'informatique qui ont des connaissances de base en matière de réception, de mise en réseau et de technologie des équipements. Le respect de toutes les réglementations et directives pertinentes pour l'installation et l'exploitation de ces systèmes relève de la responsabilité de l'installateur et/ou de l'exploitant. En particulier, il convient de respecter les réglementations et directives applicables dans les pays respectifs pour la mise en service, notamment pour le raccordement électrique, ainsi que toutes les normes et lois relatives aux produits.

Annotazione:



Tutte le istruzioni per l'uso da noi pubblicate sono destinate al professionista dell'antenna e dell'informativa che ha una conoscenza di base della tecnologia di ricezione, di rete e delle apparecchiature. Il rispetto di tutti i regolamenti e le linee guida pertinenti per l'installazione e il funzionamento di tali sistemi è responsabilità dell'installatore e/o dell'operatore. In particolare, devono essere rispettati i regolamenti e le linee guida applicabili nei rispettivi paesi per la messa in funzione, soprattutto per il collegamento alla rete elettrica e tutte le norme e le leggi relative ai prodotti.

Anotación:



Todas las instrucciones de uso publicadas por nosotros se dirigen al profesional de la antena y de la informática que tiene conocimientos básicos de recepción, de redes y de tecnología de equipos. El cumplimiento de todos los reglamentos y directrices pertinentes para la instalación y el funcionamiento de dichos sistemas es responsabilidad del instalador y/o del operador. En particular, deben cumplirse los reglamentos y directrices aplicables en los respectivos países para la puesta en marcha, especialmente para la conexión de la energía y todas las normas y leyes relacionadas con los productos.

Anotação:



Todas as instruções de operação publicadas por nós são destinadas ao profissional de antena e TI que possui conhecimentos básicos de recepção, rede e tecnologia de equipamentos. O cumprimento de todos os regulamentos e diretrizes relevantes para a instalação e operação de tais sistemas é de responsabilidade do instalador e/ou do operador. Em particular, os regulamentos e diretrizes aplicáveis nos respectivos países para comissionamento, especialmente para a conexão de energia e todas as normas e leis relacionadas aos produtos devem ser obedecidas.

Installation Notes

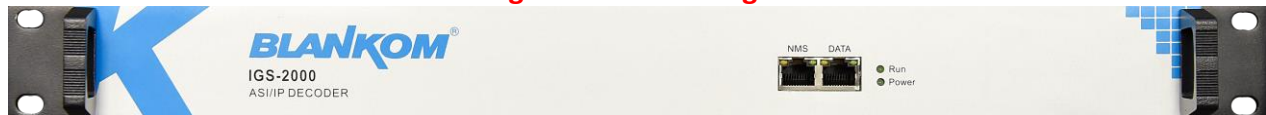
All types of the IRENIS-BLANKOM family are 19" devices with 1 RU height designed for installation in 19" racks. In addition to the front panel screws an internal module support is required at the rack. By connecting a mains cable, the device can become functional without any auxiliary appliances. The power supply units are designed for the wide range of 100-230V AC; a manual adjustment of the voltage is not necessary.

For some models the second power connector is feeding another independent power supply for internal redundancy. For a maximum of redundancy both power supplies should use different circuits.

All the outputs are decoupled from one another. Thus, the circuit does not have any effect on the functioning of the device. Connections that are not required need not to be terminated.

Network Suggestion: CAT 6E Ethernet cable for Gigabit-Ethernet

Please connect all cables first before using the Power switch at the rear and connect the housing to the common ground.



NMS= Management port default normally is = 192.168.0.136 user/password = admin/admin but here the modules have own addresses: 10.0.0.101, .102, 103

Data-Port = GbE for IP IN- and Output streams. LED's indicating the status.



Grounding screw, power switch, wide voltage PSU with IEC plug, SDI and ASI ports (v.2000)

We recommend to use an IGMP capable GbE manageable network Switch for the DATA-Port so the unit grabs the assigned and configured multicast streams from the network and avoiding flooding the IP stream input with unnecessary traffic. And please separate the NMS-port physically from the DATA-connection so the usage of 2 separate switches are a good choice.

After you have set your web-browser (we recommend to use Mozilla Firefox) computer to a corresponding IP address in the range of 10.0.0.x (do not use same like the default 10.0.0.101-103) and connect your network port to the NMS-management switch enter the units IP address and you will be asked for username / password:

Benutzername:

Kennwort:

-> You will enter the Status-Page:

IGS-2000

Web Management

BLANKOM

Summary

- Status


Parameters

- Decoder
- IP Input
- IP Output

System

- Network
- Password
- Configuration
- Firmware
- Log

DEVICE INFORMATION



System Information

Software Version: 02.02.25 Build 100 Aug 16 2019
Hardware Version: 01.02.09 Decoder version 09 09
Web Version: 2.20
System Version: 1.20.1.63
Product ID: 0d702446-00100011-00000000-00000000
Uptime: 0 Day(s)-01:42:27

Inputs

Interface	TS Lock	Bitrate
ASI1	●	36.073 Mbps
ASI2	●	0.000 Mbps
IP1	●	42.035 Mbps
IP2	●	42.249 Mbps

Outputs

Channel	TS Overflow	Bitrate(Act/Max)
ASI1	●	0.000/40.000 Mbps
ASI2	●	17.902/79.999 Mbps
IP	●	0.000/80.001 Mbps
Decoder	●	9.287/79.999 Mbps

Giving you an overview about the System Information and Firmware versions as well as I/O values.

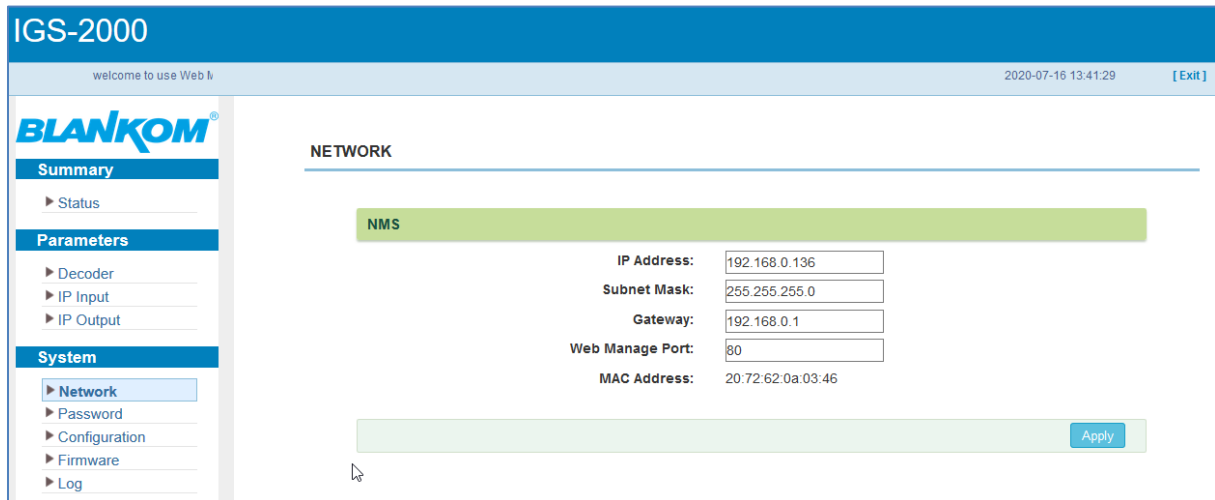
Attention: The more than 1 Modul devices might have other IP-addresses per module but from the same NMS RJ45 at the front: 10.0.0.101 and .102: (there is a tool for scanning, ask us please)

DeviceDetectTool 1.01

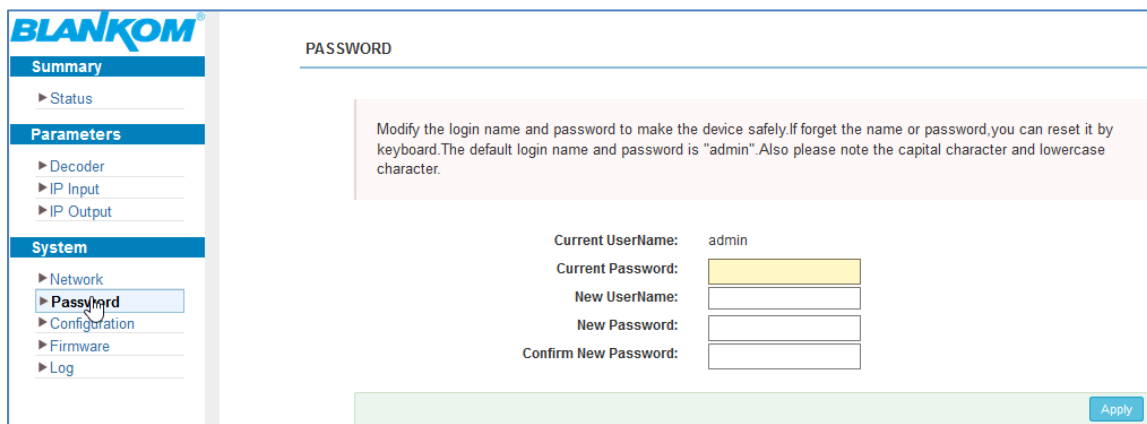
DeviceIP	SubnetMask	GatewayIP	NMS Port	NMS Type	MAC Addr.	Remark
10.0.0.102	255.0.0.0	10.0.0.1	80	Web	202107121515	2021.10.26 13:02:54
10.0.0.101	255.0.0.0	10.0.0.1	80	Web	202107121517	2021.10.26 13:02:54

NMS

Entering the System Menu -> Network allows you to change the

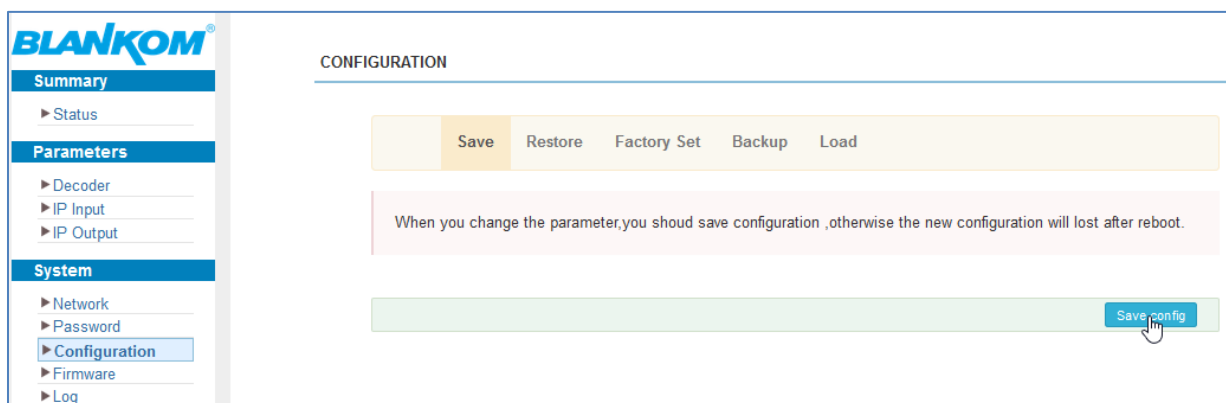


Change this according to your local network IPv4 needs.



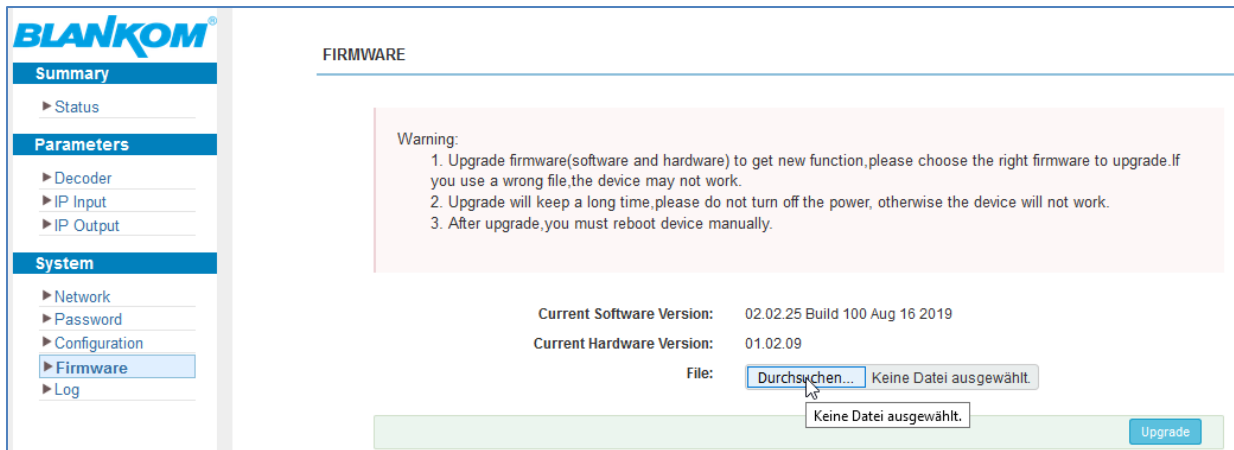
Self-explaining...

It is always a good idea to save your configuration in case of power loss or reconnecting power:

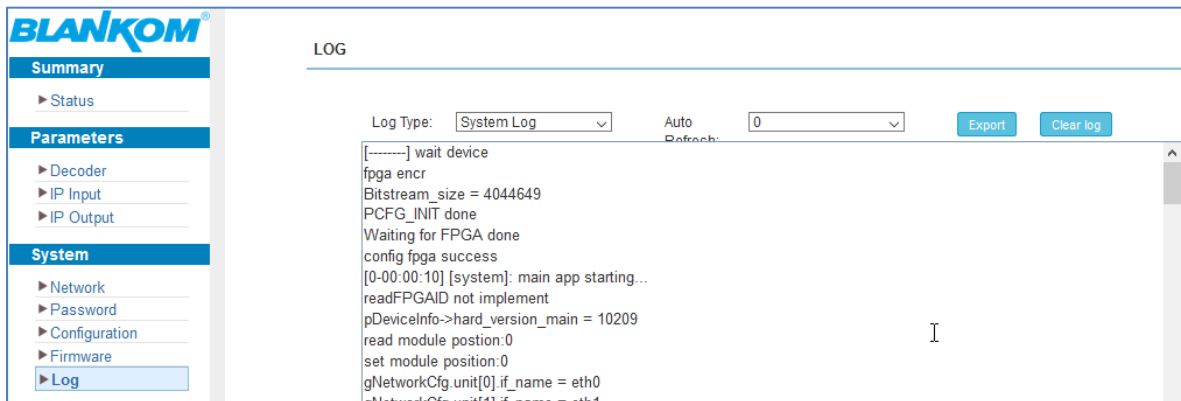


Save / Restore as well as Factory set, Backup to file or Load from PC sounds common?

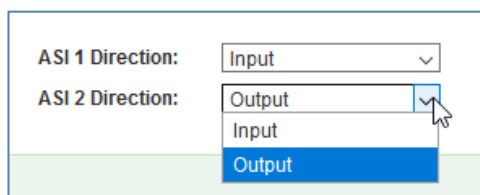
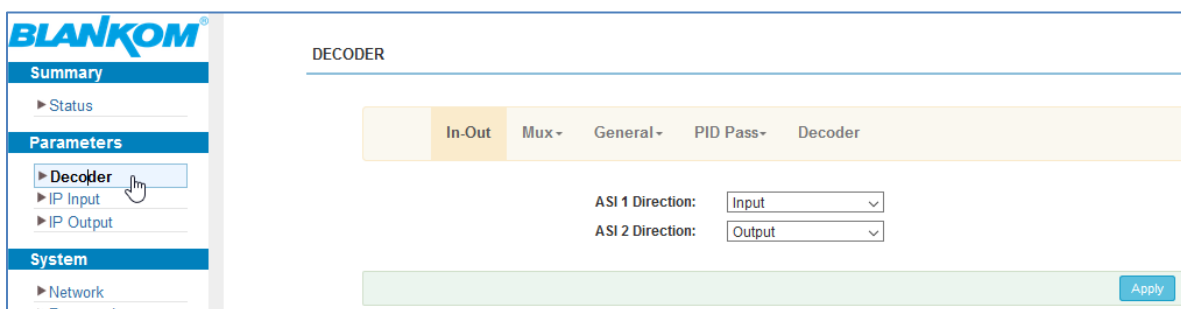
In case a firmware update has to be done this is the right chapter:



If you face any problems with the current software, please write a bug-report in details and we will assign the developers to have a look and as soon as a new release is available we will provide an update if possible. For this case please export the log and send it to us with the report:

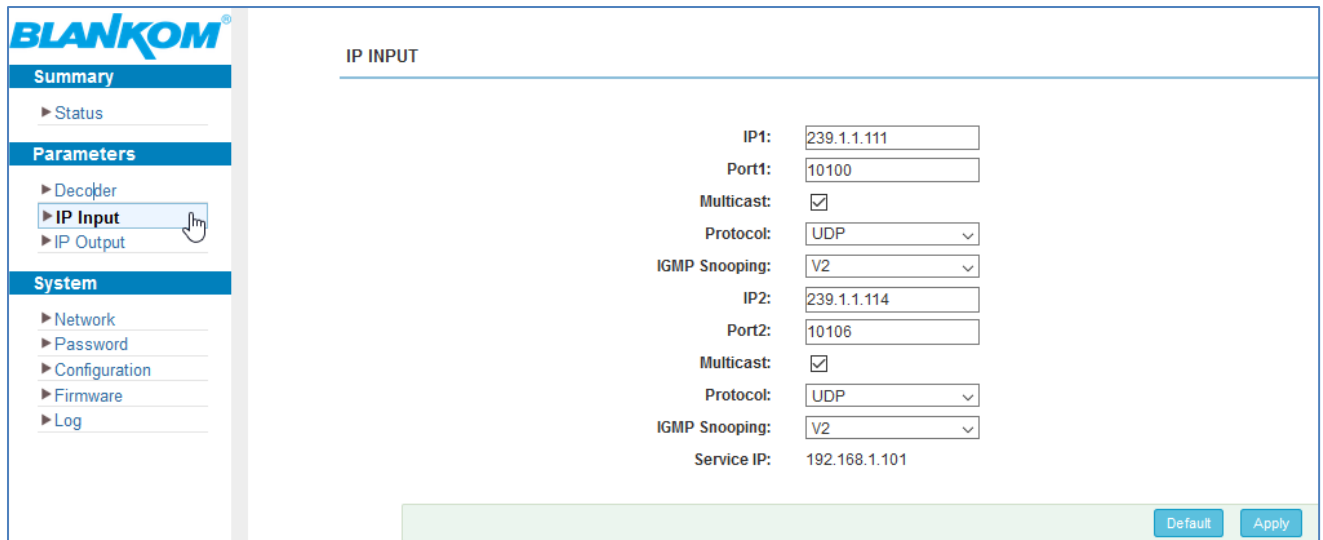


Configuring the ASI ports as IN- or Outputs (ASI is one direction):

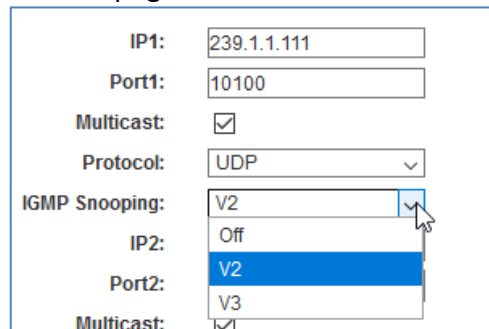


Change to your needs: always press APPLY after changing any value.

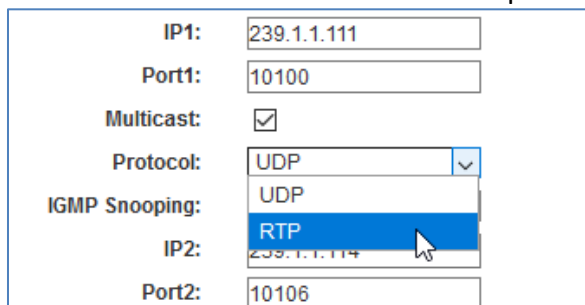
Configuring the IP-Inputs @ the DATA-Port:



Here we have assigned 2 DVB-IP streams as MPTS from our SAT streamer.
The received datarates can be checked in the Status page.

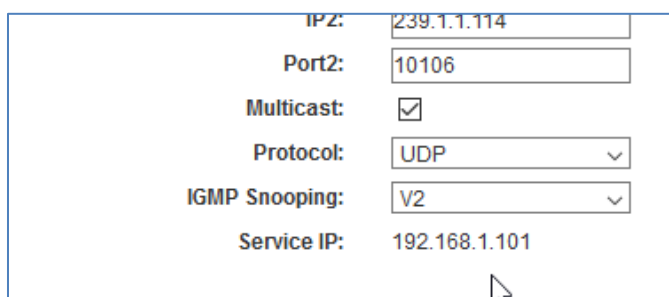


IGMP version 2 or 3 or Off can be adjusted:
Or the multicast can be disabled if you do not need this inputs stream.
UDP or RTP can be selected for both input streams:

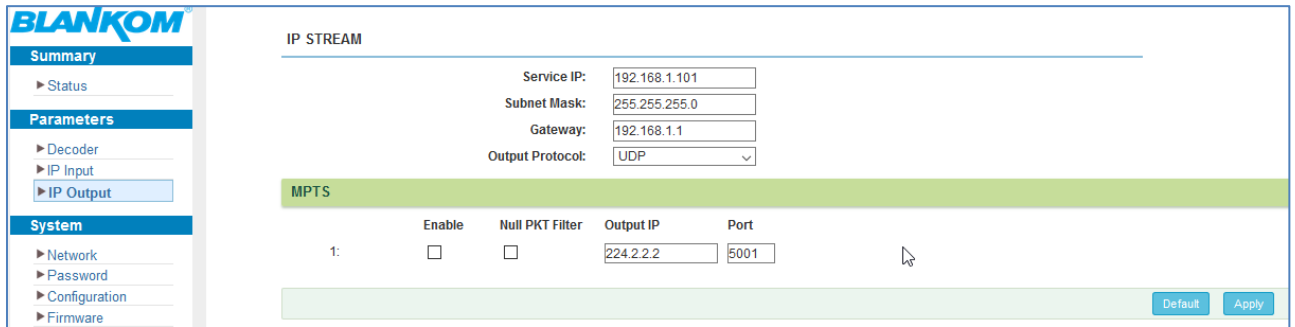


Note: RTP port addresses usually start with an equal number > 5000 like 5004. Because the equal portnumber +1 will be used by RTP as a parallel stream automatically, please check the specification or RTP-RFC available from the internet...

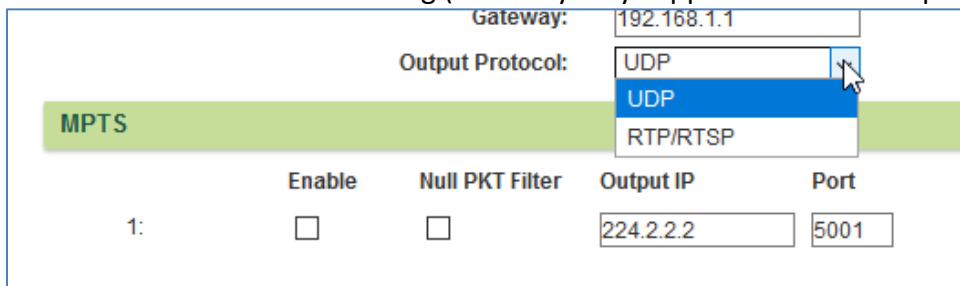
The Service-IP shows the DATA-port IP-address you are receiving (and maybe stream your mux):



Which can be adjusted in the IP-Out-Menu:

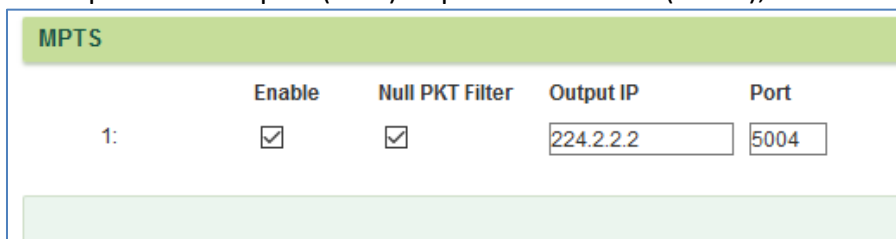


Note: For RTSP unicast streaming (currently only supported for the output IP stream):



The receiver must be in the same subnet (here 192.168.1.x).

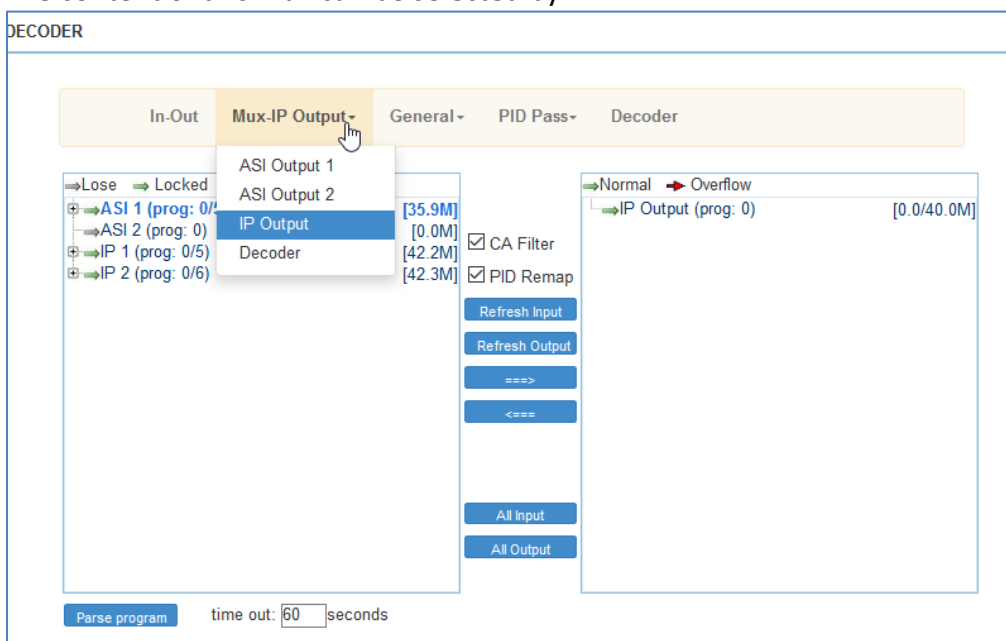
To output the Multiplex (Mux) or pass ASI to IPout (MPTS), enable it:



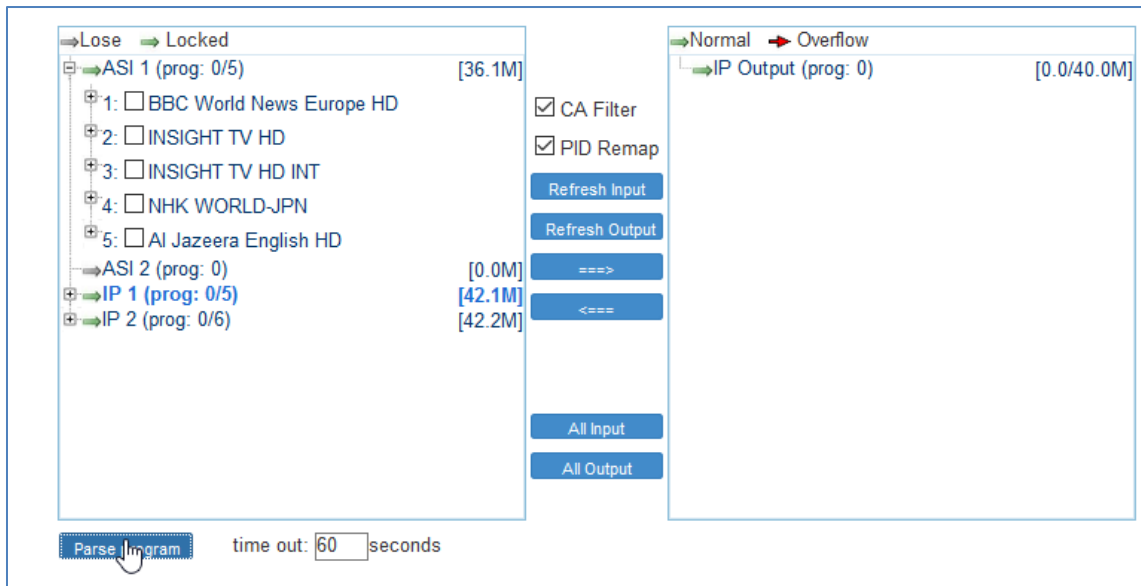
Apply!

The Null PKT-Filter will not pass the PID8191dec to this Stream so the stream will be in VBR instead of CBR (VBR=variable bitrate / CBR = Constant bitrate).

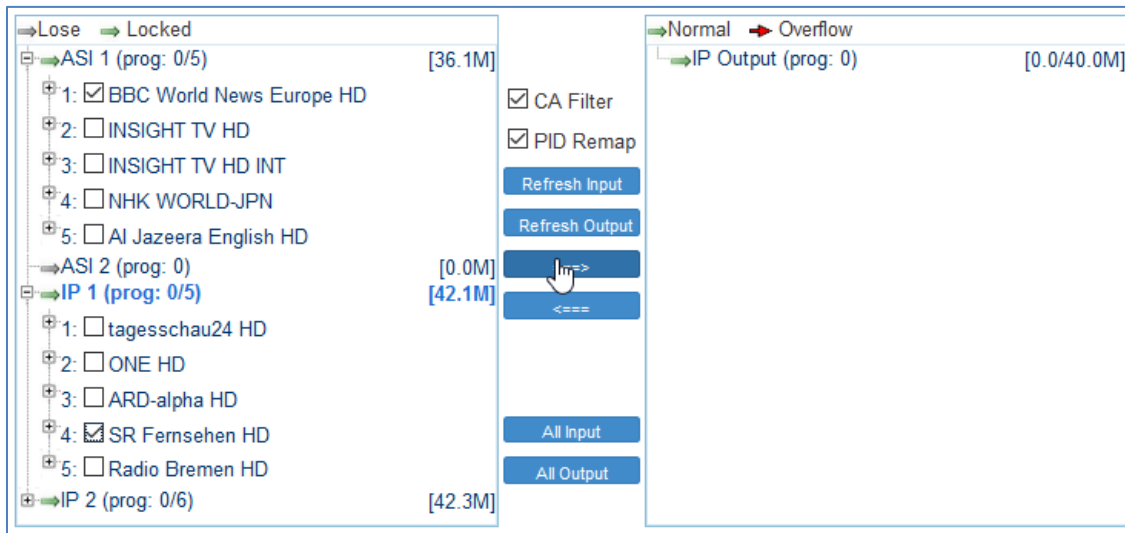
The content of this mux can be selected by:



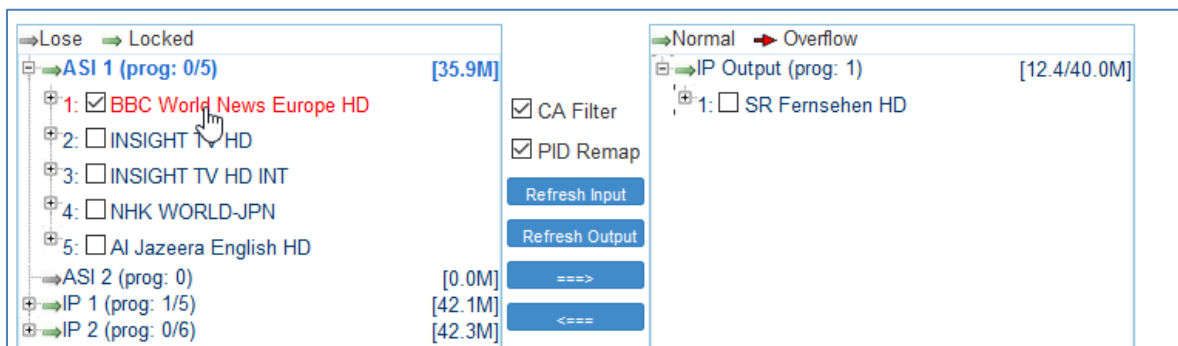
From the different Inputs IP1/2 + ASI the mux can be created by first **Parsing** the Input stream services:



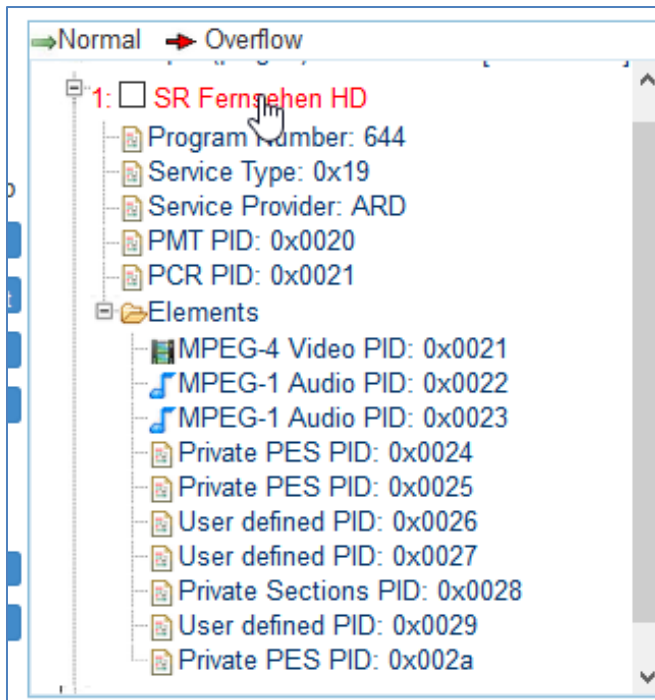
Then select the individual services and push them to the right:



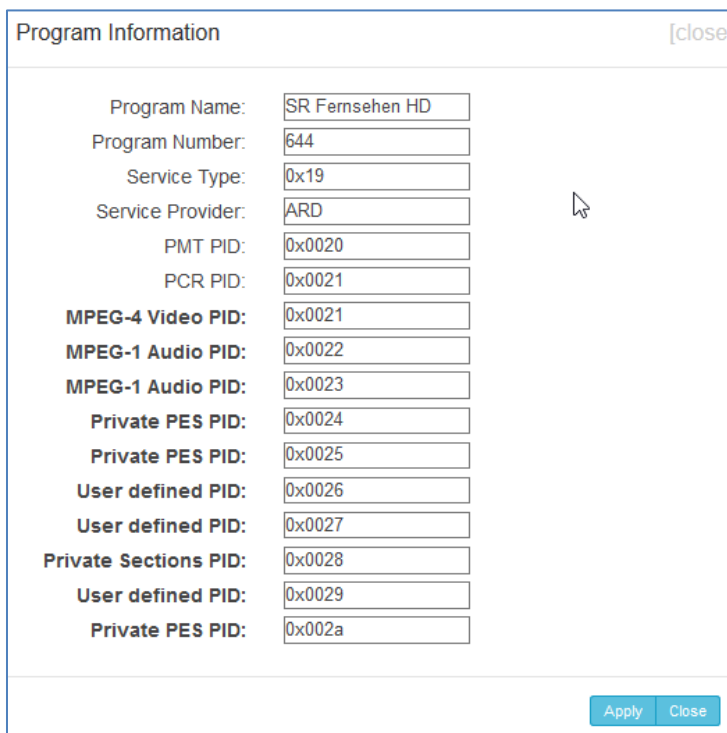
Do it step by step:



Details can be shown and manipulated in the output mux as following:



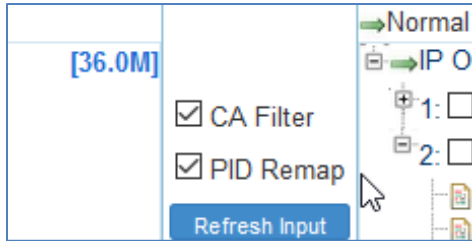
click on it and a popup comes up:



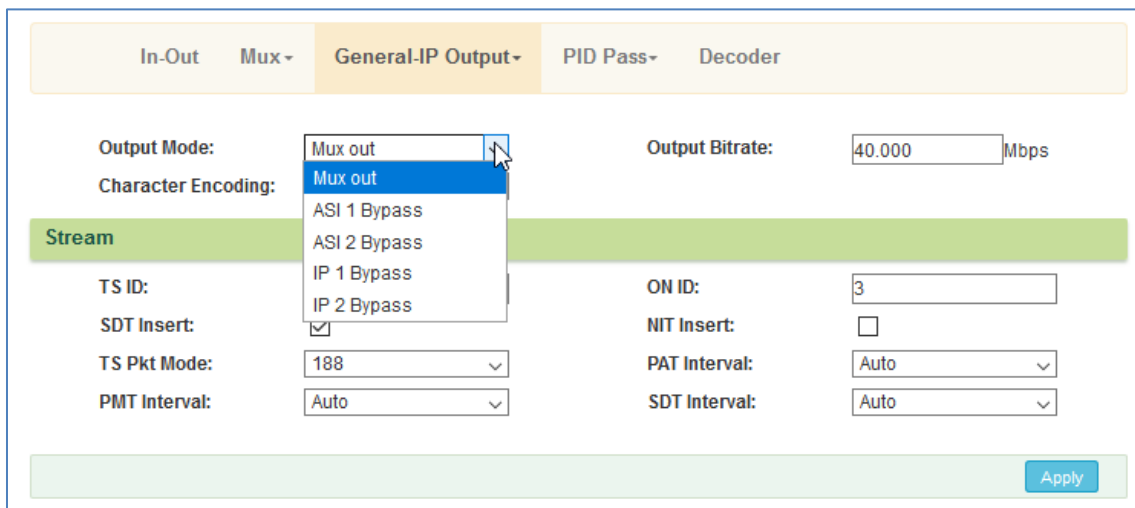
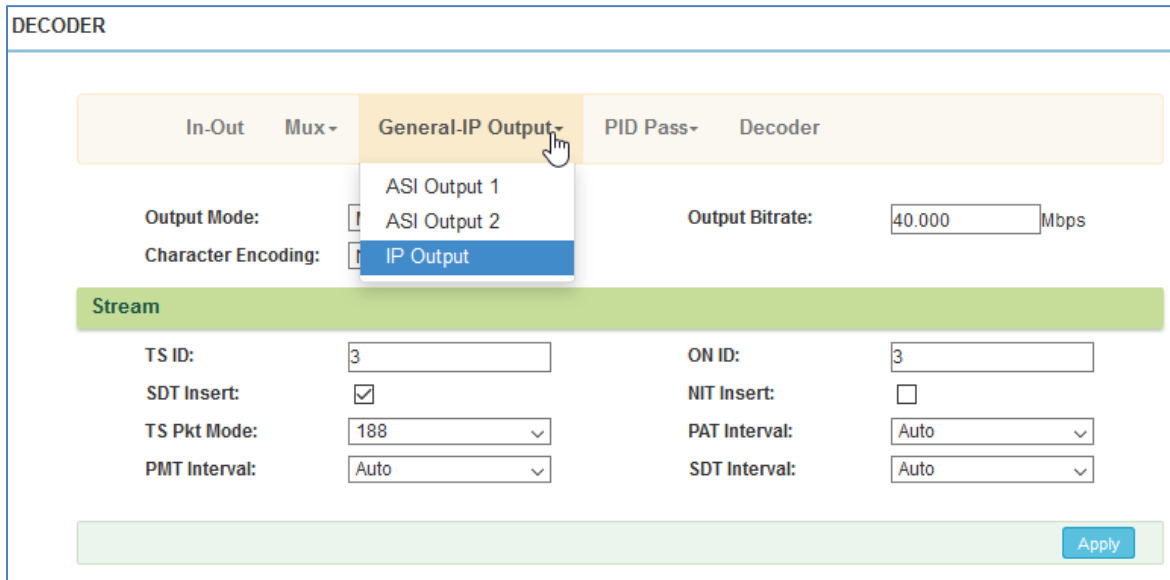
You should know what you do here

when changing these...

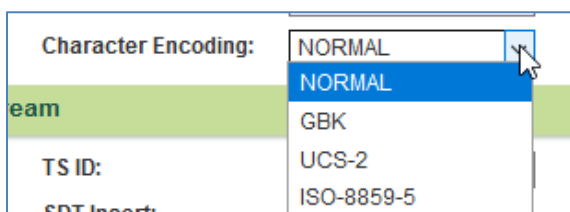
CA-Filter can be useful if these PayTV-PIDs are not necessary to pass to the output this saves capacity...

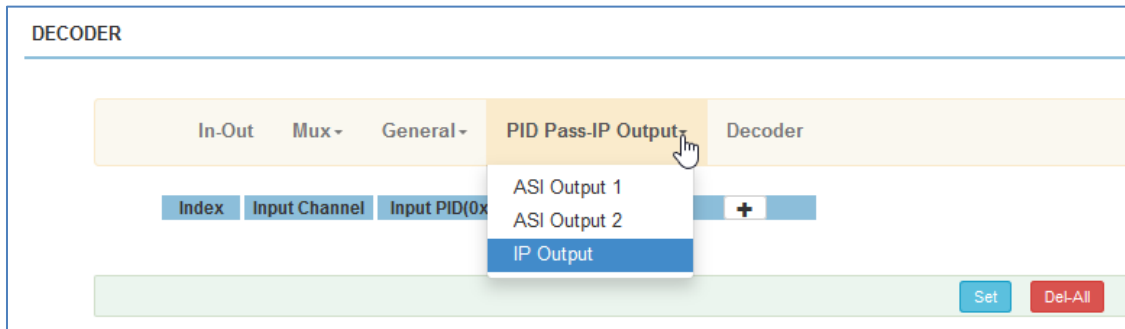


PID Remapping is often only necessary if you must avoid conflicts in the final mux because the different input streams have double/identical PIDs in their transport streams (TS). Config of IP/ASI outs DVB-PSI/SI TS values are selectable for each:

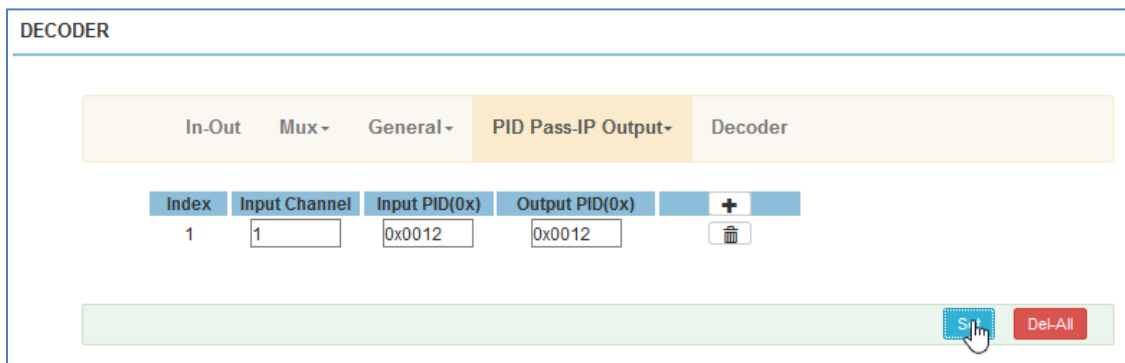


As well as Character tables (Country and language dependent):



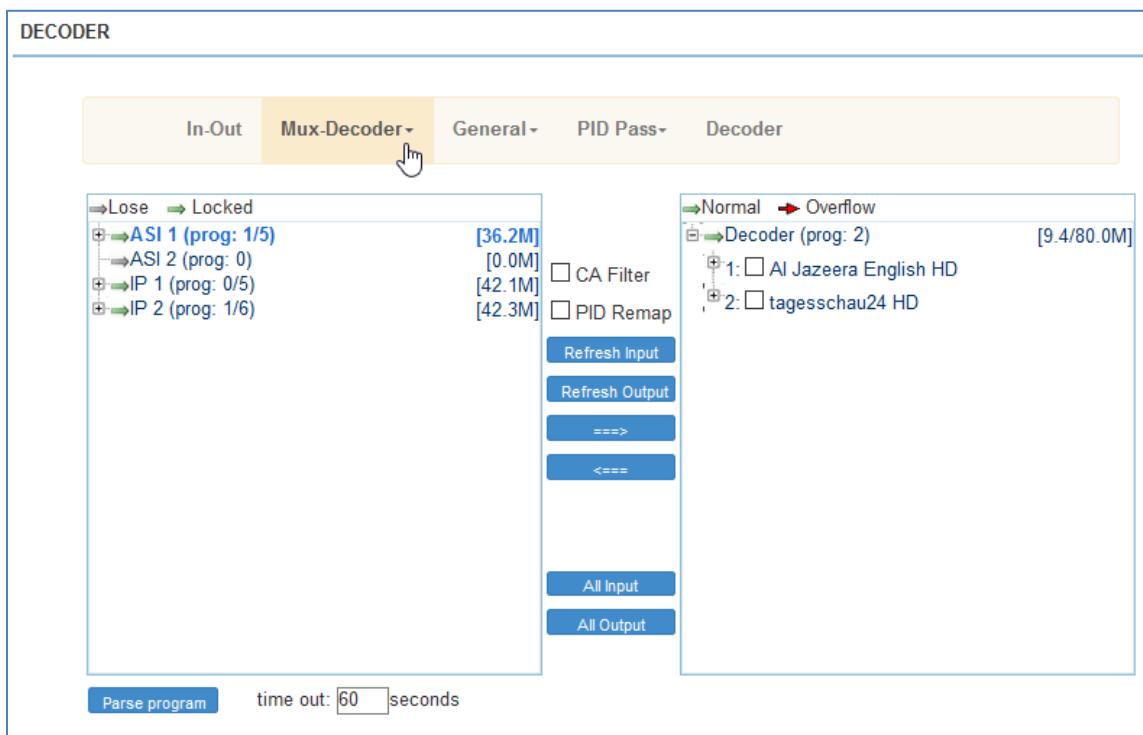


PIDs can be routed from the Inputs to the 3 outputs like EIT = PID12hex:



This makes only sense if no PID remapping has been assigned to create a consistent table construct.

To force the Decoder to create SDI-outputs a SDI Mux has to be created:



Or directly select the Services from the Inputs:

DECODER

In-Out Mux General PID Pass Decoder

	<p>Decoder1:</p> <p>Source Select: <input type="text" value="IP 1 Bypass"/></p> <p>Output Format: <input type="text" value="Mux"/></p> <p>Audio1 Mode: <input type="text" value="ASI 1 Bypass"/></p> <p>Audio1 Select: <input type="text" value="IP 1 Bypass"/></p> <p>Audio2 Mode: <input type="text" value="IP 2 Bypass"/></p> <p>Audio2 Select: <input type="text" value="Track 2 mis"/></p> <p>CC Enable: <input type="text" value="Off"/></p> <p>Subtitle: <input type="text" value="Off"/></p> <p>Ac3 Pass: <input type="text" value="Open"/></p> <p>Volume: <input type="text" value="60"/></p> <p>Program Select: <input type="text" value="1:tagesschau24 HD"/></p> <p>Decoder OK: ●</p>	<p>Decoder2:</p> <p><input type="text" value="IP 2 Bypass"/></p> <p><input type="text" value="Auto"/></p> <p><input type="text" value="Stereo"/></p> <p><input type="text" value="Track 1 deu"/></p> <p><input type="text" value="Stereo"/></p> <p><input type="text" value="Off"/></p> <p><input type="text" value="Off"/></p> <p><input type="text" value="Off"/></p> <p><input type="text" value="Open"/></p> <p><input type="text" value="60"/></p> <p><input type="text" value="1:TV Mainfranken HC"/></p> <p style="text-align: center;">●</p>
--	--	---

Depending on the Source stream content, the Audio-processing can be adjusted.

If no 2nd Audio MP1L2 PID exists or no AC3 PID, the Decoder can only process what's available:

Decoder1:

Source Select:

Output Format:

Audio1 Mode:

Audio1 Select:

Audio2 Mode:

Audio2 Select:

CC Enable:

Subtitle:

Ac3 Pass:

Volume:

Program Select:

Decoder OK: ●

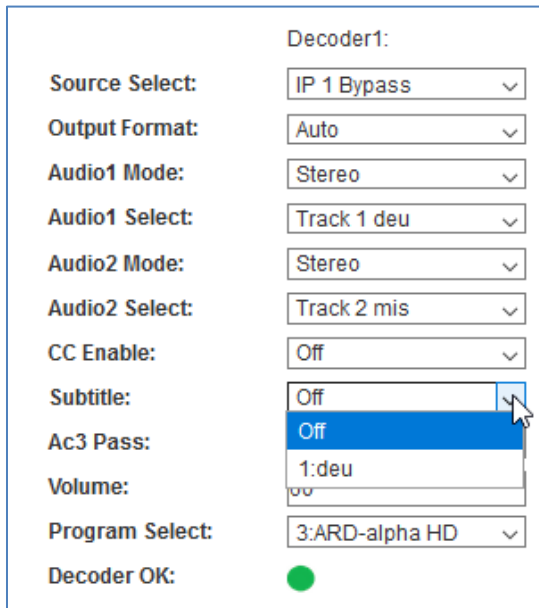
Decoder2:

●

If changing the input the unit reads from the selected and you need to configure again...

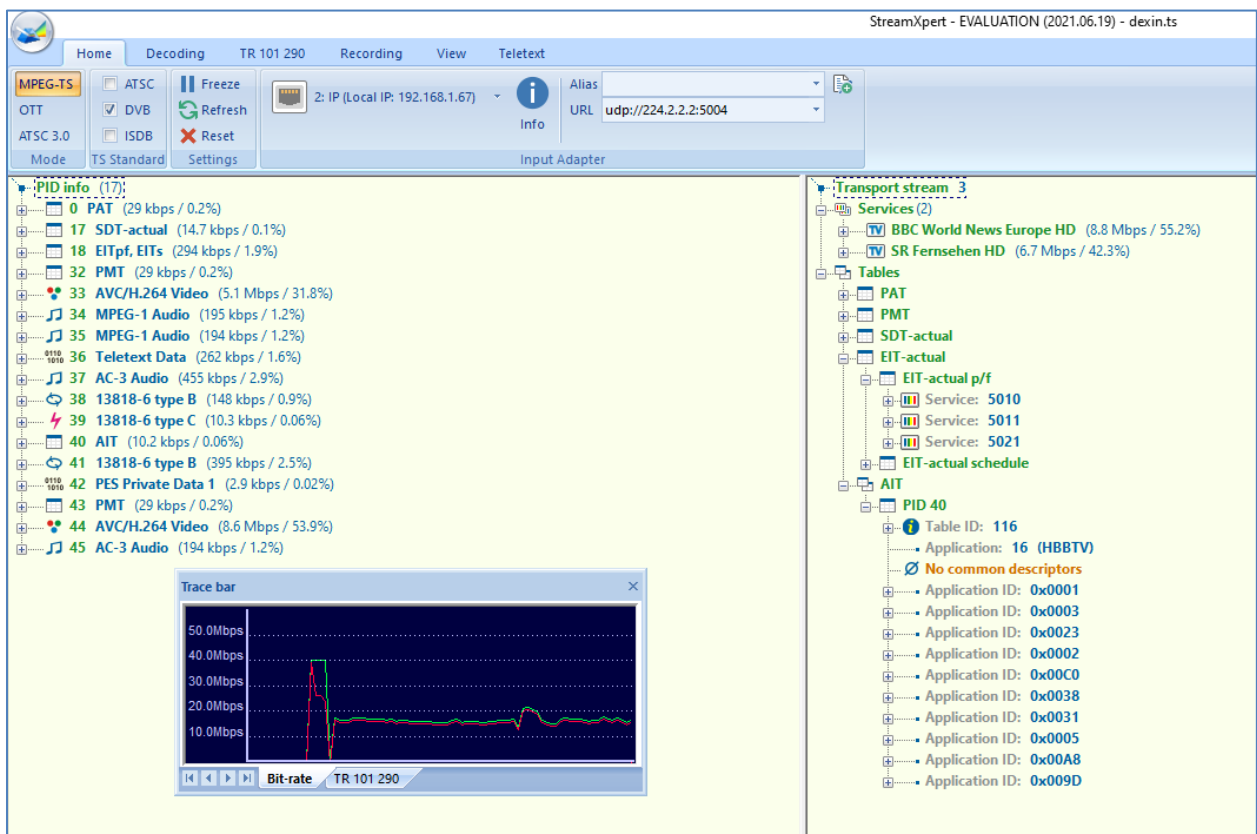
Or manually 'Search'

If Subtitle (DVB) (or Close Caption US/ATSC) is available from the Input source, it will be shown and is selectable:

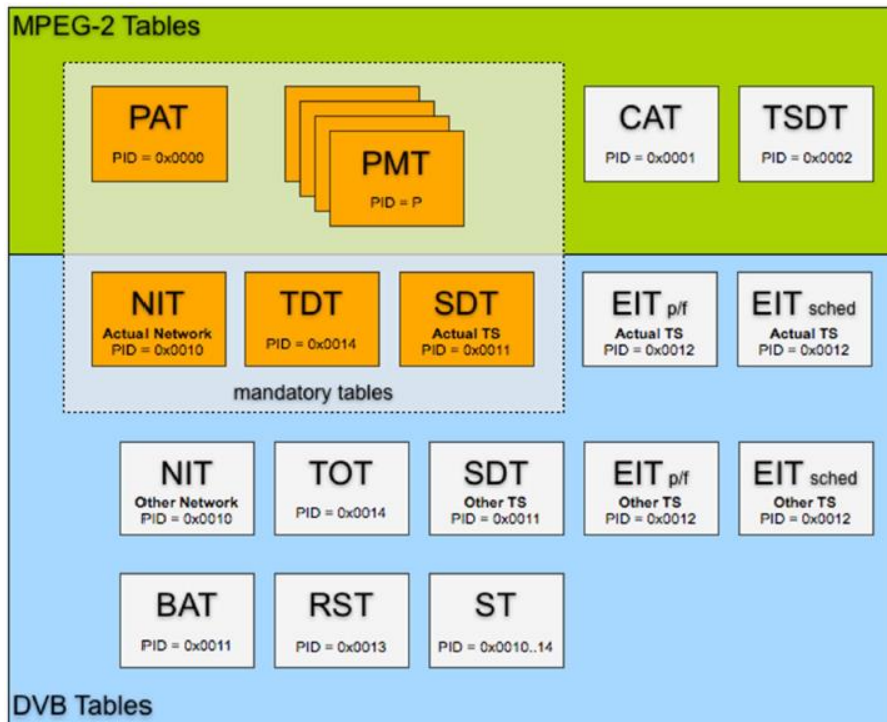


Then will passed to the SDI output.

IP-output Multiplex: (UDP is basic, RTP on top layer so the analyser do not need RTP)



Appendix:



DVB: (ATSC is slightly different !!!)

Table 1: PID allocation for SI

Table	PID value
PAT	0x0000
CAT	0x0001
TSDT	0x0002
reserved	0x0003 to 0x000F
NIT, ST	0x0010
SDT, BAT, ST	0x0011
EIT, ST, CIT (ETSI TS 102 323 [13])	0x0012
RST, ST	0x0013
TDT, TOT, ST	0x0014
network synchronization	0x0015
RNT (ETSI TS 102 323 [13])	0x0016
reserved for future use	0x0017 to 0x001B
link-local inband signalling	0x001C
measurement	0x001D
DIT	0x001E
SIT	0x001F

Appendix A Product Disposal



Warning! Ultimate disposal of this product should be handled according to all national laws and regulations.

製品の廃棄

この製品を廃棄処分する場合、国の関係する全ての法律・条例に従い処理する必要があります。

警告

本产品的废弃处理应根据所有国家的法律和规章进行。

警告

本產品的廢棄處理應根據所有國家的法律和規章進行。

Warnung

Die Entsorgung dieses Produkts sollte gemäß allen Bestimmungen und Gesetzen des Landes erfolgen.

¡Advertencia!

Al deshacerse por completo de este producto debe seguir todas las leyes y reglamentos nacionales.

Attention

La mise au rebut ou le recyclage de ce produit sont généralement soumis à des lois et/ou

دليل

!تنبيه

يجب التخلص من هذا المنتج وفقاً لجميع القوانين واللوائح الوطنية

directives de respect de l'environnement. Renseignez-vous auprès de l'organisme compétent.

عند التخلص النهائي من هذا المنتج يتعين التعامل معه وفقاً لجميع القوانين واللوائح الوطنية

경고!

이 제품은 해당 국가의 관련 법규 및 규정에 따라 폐기되어야 합니다.

Waarschuwing

De uiteindelijke verwijdering van dit product dient te geschieden in overeenstemming met alle nationale wetten en reglementen.

Safety instructions



Read the safety instructions carefully before assembling or commissioning the device and ensure that you comply with them

1. Installation



- **Danger:** The device may **only** be installed and started up by competent people (see EN 60065).
- **Danger:** The device and the peripheral distribution devices must be earthed properly (potential equalization) in accordance with EN 60728-11 **before Commissioning** and remain earthed even when the device is dismantled.
- **Danger:** The device may not be installed on a flammable base (**risk of fire**).
- **Danger:** Only connect the device to a socket that is installed correctly and connected to devices that has an earth conductor (Depending on Model and Usage).
- **Danger:** Plan the assembly or installation location to ensure that children cannot play with the device and its connections. There is a risk of electric shock (**Danger of death**).
- **Danger:** Select an assembly or installation location in which fluids or objects cannot get into the device under any circumstances (e.g. condensation, water for watering plants, etc.).
- **Danger:** Ventilation slots and refrigeration units are important function elements on the devices. If devices have refrigeration units or ventilation slots, you must ensure that they are never covered or built over. Also ensure that there is sufficient air circulation around the device. This prevents possible damage to the device and the **risk of fire due** to overheating. Ensure a minimum of **clearance of 20cm** between the device and other objects.
- **Danger:** The assembly or installation location must allow all connected cables to be laid safely. Cables and power supply cables must not be damaged or crushed by any objects. Furthermore, ensure that cables are not laid in the immediate vicinity of sources of heat (e.g. radiators, other electrical devices, fireplaces, etc.) (**Risk of fire**), (**risk of electric shock danger of death**)
- **Danger:** In order to prevent damage to the device, as well as possible subsequent damage (**risk of fire**), devices intended for installation on the wall are only permitted to be installed on a level surface and not **above head height**.
- **Warning:** (Only for optical transmitters and their peripheral distribution devices) Never look directly or indirectly into the laser beam. Only connect the device to the power supply once all optical lines are connected securely. 
- **Warning:** The safety regulations in the relevant current standards EN 60728-11 and EN 60065 must be complied with.
- **Warning:** Comply with all applicable national safety regulations and standards.
- **Warning:** The device's mains plug must be easily accessible at all times.
- **Warning:** Follow all instructions in the device-specific operating manual

2. Operation

- **Danger:** The device is only permitted to be operated in dry rooms in a non-tropical climate. In damp rooms or outdoors, there is the risk of short circuits (**risk of fire**) or electric shock (**danger of death**). 
- **Danger:** Do not insert any objects through the ventilation slot. Risk of electric shock (**danger of death**).
- **Danger:** Do not put any containers filled with liquid (e.g. vases) on the device. There is a risk of electric shock (**danger of death**) or (**risk of fire**).
- **Danger:** No open sources of fire such as burning candles are permitted to be placed on the device (**risk of fire**).
- **Danger:** Ensure that there is a clearance of at least **20cm** around the device. The device ventilation is not permitted to be impaired by covering the
 - Ventilation openings with objects such as newspapers, tablecloths, curtains, etc. (**risk of fire**).
- **Warning:** Follow all instructions in the device-specific operating manual. 

3. Maintenance

- **Danger:** Maintenance tasks must always be carried out by competent people (**see EN 60065**).
- **Danger:** Do not carry out servicing work during thunderstorms. There is a risk of electric shock (**danger of death**).
- **Warning:** (Only for devices with batteries): **Risk of explosion if** the battery is replaced improperly. Only replace with the same type!
- **Warning:** Batteries must not be subjected to excessive heat such as sunlight, fire or similar (**risk of explosion**).
- **Warning:** Only use the manufacturer's accessories or accessories with identical technical properties.
- **Warning:** (For optical transmitters and their peripheral distribution devices) unplug the mains plug before dismantling the device.



4. Repairs

- **Danger:** The device may only be opened by competent people (see EN 60065). Before opening the device, unplug the mains plug or disconnect the power supply; otherwise there is a danger of death! The device is only permitted to be connected to the power and operated when the mains adaptor cover is installed.



This also applies when you clean the device or work on the connections.

- **Danger:** Repairs on the device may only be carried out by a specialist (**see EN 60065**) observing the applicable **VDE (German Association for Electrical, Electronic & Information Technologies) guidelines**.
- **Danger:** Only use components of the same type and with identical technical properties for the repair. Otherwise, there is a risk of electric shock (**danger of death**) and **risk of fire**.
- **Warning:** (For optical transmitters and their peripheral distribution devices) unplug the mains plug before dismantling the device.

If you have any queries regarding repairs, please contact our company service: E-mail:

info@blankom.de, contact: www.blankom.de



5. Sale

- **Caution:** If the device is sold, these safety instructions and the operating manual for the relevant device must be handed over to the purchaser.

6. Disposal

- **Caution:** Dispose of the device in accordance with the applicable environmental regulations.
- **Caution:** Dispose of batteries (if present) in accordance with the applicable environmental regulations.
- Cartons and all pcs. of the packaging can be sent back to us for recycling for sustainable environment protection.





Sicherheitshinweise

Sicherheitshinweise bitte vor Montage bzw. Inbetriebnahme des Gerätes sorgfältig lesen und befolgen.

Installation

Gefahr: Das Gerät darf ausschließlich von sachverständigen Personen (siehe EN 60065), installiert und in Betrieb genommen werden.

Gefahr: Das Gerät und/oder die Verteilperipherie muß vor Inbetriebnahme gemäß EN 60728-11 vorschriftsmäßig geerdet sein (Potentialausgleich) und bleiben, auch wenn das Gerät ausgebaut wird.

Gefahr: Das Gerät darf nicht auf brennbarem Untergrund montiert werden (Brandgefahr).

Gefahr: Schließen Sie das Gerät nur an eine vorschriftsmäßig installierte Steckdose mit Schutzleiter an.

Gefahr: Planen Sie den Montage - bzw. Aufstellungsort so, daß Kinder nicht am Gerät und dessen Anschlüssen spielen können. Es droht Gefahr durch elektrischen Schlag (Lebensgefahr).

Gefahr: Wählen Sie einen Montage - bzw. Aufstellungsort, an dem unter keinen Umständen Flüssigkeiten oder Gegenstände in das Gerät gelangen können (z.B. Kondenswasser, Gießwasser etc.).

Gefahr: Lüftungsschlitze und Kühlkörper sind wichtige Funktionselemente an den Geräten. Bei Geräten, die Kühlkörper oder Lüftungsschlitze haben, muß daher unbedingt darauf geachtet werden, daß diese keinesfalls abgedeckt oder zugebaut werden. Sorgen Sie außerdem für eine großzügig bemessene Luftzirkulation um das Gerät. Damit verhindern Sie mögliche Schäden am Gerät sowie Brandgefahr durch Überhitzung. Gewährleisten Sie einen Mindestabstand von 20cm um das Gerät zu anderen Gegenständen.

Gefahr: Der Montage- bzw. Aufstellort muß eine sichere Verlegung aller angeschlossenen Kabel zulassen. Stromversorgungskabel sowie Zuführungskabel dürfen nicht durch irgendwelche Gegenstände beschädigt oder gequetscht werden. Es ist darüber hinaus unbedingt darauf zu achten, daß Kabel nicht in die direkte Nähe von Wärmequellen verlegt werden (z.B. Heizkörper, andere Elektrogeräte, Kamin etc.) (Brandgefahr), (Gefahr durch elektrischen Schlag).

Gefahr: Um sowohl Beschädigungen am Gerät als auch mögliche Folgeschäden (Brandgefahr) zu vermeiden, dürfen für Wandmontage vorgesehene Geräte nur auf einer ebenen Grundfläche montiert werden und nicht über Kopf.

Warnung: (Nur für optische Sender sowie deren Verteilperipherie) Blicken Sie auf keinen Fall direkt oder indirekt in den Laserstrahl. Schließen Sie das Gerät erst an die

Stromversorgung an, wenn alle elektrischen und optischen Leitungen sicher verbunden sind.

Warnung: Die Sicherheitsbestimmungen der jeweils aktuellen Normen EN 60728-11 und EN 60065 sind zwingend einzuhalten.

Warnung: Befolgen Sie auch alle anwendbaren nationalen Sicherheitsvorschriften und Normen.

Warnung: Der Netzstecker des Gerätes muß jederzeit leicht erreichbar sein.

Warnung: Befolgen Sie alle Instruktionen in den gerätespezifischen Bedienungsanleitungen

Betrieb

Gefahr: Das Gerät darf nur in trockenen Räumen bei nicht tropischem Klima betrieben werden. In feuchten Räumen oder im Freien besteht die Gefahr von Kurzschluß (Brandgefahr) oder elektrischen Schlag (Lebensgefahr).

Gefahr: Stecken Sie keine Gegenstände durch die Lüftungsschlitze. Gefahr durch elektrischen Schlag (Lebensgefahr).

Gefahr: Stellen Sie keine mit Flüssigkeit gefüllten Gefäße (wie z. B. Vasen) auf das Gerät. Es droht Gefahr durch elektrischen Schlag (Lebensgefahr) oder (Brandgefahr).

Gefahr: Es dürfen keine offenen Brandquellen, wie z. B. brennende Kerzen, auf das Gerät gestellt werden (Brandgefahr).

Gefahr: Sorgen Sie für einen Freiraum von mindestens 20cm um das Gerät. Die Belüftung des Gerätes darf nicht durch Abdecken der Belüftungsöffnungen mit

Gegenständen wie z. B. Zeitungen, Tischdecken, Gardinen usw. behindert werden (Brandgefahr).

Warnung: Befolgen Sie alle Instruktionen in der gerätespezifischen Bedienungsanleitung.

Wartung

Gefahr:Wartungsarbeiten sind stets von sachverständigen Personen (siehe EN 60065) vorzunehmen.

Gefahr:Keine Servicearbeiten bei Gewitter. Es droht Gefahr eines elektrischen Schlags (Lebensgefahr).

Warnung: (nur für Geräte mit Batterie): Explosionsgefahr bei unsachgemäßem Auswechseln der Batterie. Ersatz nur durch den gleichen Typ!

Warnung: Batterien dürfen nicht übermäßiger Wärme wie Sonnenschein, Feuer oder dergleichen ausgesetzt werden (Explosionsgefahr).

Warnung: Verwenden Sie nur das Zubehör des Herstellers oder Zubehör mit identischen technischen Eigenschaften.

Warnung: (Bei optischen Sendern sowie deren Verteilperipherie) ziehen Sie den Netzstecker bevor das Gerät ausgebaut wird.

Reparatur

Gefahr:Das Gerät darf nur durch sachverständige Personen (siehe EN 60065) geöffnet werden. Vor

Öffnen des Gerätes Netzstecker ziehen

bzw. Stromzuführung entfernen, andernfalls besteht Lebensgefahr! Das Gerät darf nur mit montierter Netzteilabdeckung an Spannung angeschlossen und betrieben werden. Dies gilt auch, wenn Sie das Gerät reinigen oder an den Anschlüssen arbeiten.

Gefahr:Reparaturen am Gerät sind ausschließlich vom Fachmann (siehe EN 60065) unter Beachtung der geltenden VDE-Richtlinien durchzuführen.

Gefahr:Verwenden Sie nur Bauteile des gleichen Typs und mit identischen technischen Eigenschaften für die Reparatur, andernfalls droht Gefahr eines elektrischen Schlags (Lebensgefahr) und Brandgefahr.

Warnung: (Bei optischen Sendern sowie deren Verteilperipherie) ziehen Sie den Netzstecker bevor das Gerät ausgebaut wird.

Bei Fragen zur Reparatur wenden Sie sich an den IRENIS-Service:

E-Mail: info@blankom.de, Kontakt: www.blankom.de

Verkauf

Vorsicht: Im Falle eines Verkaufs müssen diese Sicherheitshinweise und die Bedienungsanleitung des entsprechenden Geräts dem Käufer ausgehändigt werden.

Entsorgung

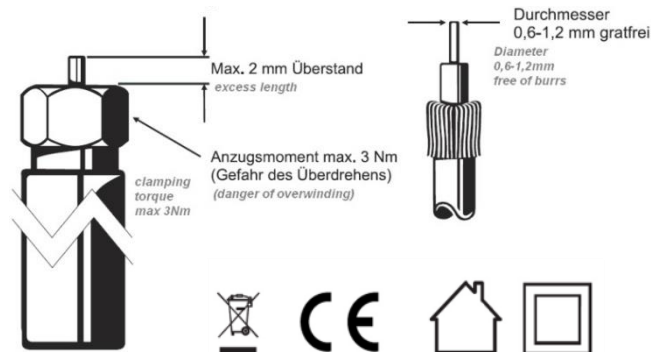
Vorsicht: Entsorgen Sie das Gerät entsprechend den geltenden umweltrechtlichen Bestimmungen. Elektrische und elektronische Geräte dürfen nicht in den Hausmüll!

Vorsicht: Entsorgen Sie Batterien (falls vorhanden), entsprechend den geltenden umweltrechtlichen Bestimmungen.

Verpackungen können an uns zurückgeschickt werden. Wir kümmern uns um Recycling und/oder fachgerechte Entsorgung.

Installation guide for F-connectors:

/ Installationshinweis für den F-Anschluß:



SAT: Die LNB-Anschlüsse sind meist entsprechend gekennzeichnet

The LNC –connectors at Multiswitches are almost marked as:

HH= Horizontal High-Band

HL = Horizontal Low-Band = LH

Elektronische Geräte gehören nicht in den Hausmüll, sondern müssen - gemäß Richtlinie 2002/96/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 27. Januar 2003 über Elektro- und Elektronik-Altgeräte fachgerecht entsorgt werden.

Bitte geben Sie dieses Gerät am Ende seiner Verwendung zur Entsorgung an den dafür vorgesehenen öffentlichen Sammelstellen ab.

Electronic equipment is not household waste - in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27th January 2003 on used electrical and electronic equipment, it must be disposed of properly.

At the end of its service life, take this unit for disposal to an appropriate official collection point

Zur Beachtung / Important notes:

- Auf das Netzgerät dürfen keine mit Flüssigkeit gefüllten Gegenstände gestellt werden.
- *No liquid-filled items may be placed on top of the power supply unit.*
- Das Netzgerät darf nicht Tropf- oder Spritzwasser ausgesetzt sein.
- *The power supply unit must not be exposed to dripping or splashing water.*
- Der Netzstecker muss ohne Schwierigkeiten zugänglich und benutzbar sein.
- *The mains plug must be easily accessible and operable.*
- Das Gerät kann nur durch Ziehen des Netzsteckers vom Netz getrennt werden.
- *The only reliable method of disconnecting the unit from the mains is to unplug it.*
- Bei größerem Durchmesser des Kabel- Innenleiters als 1,2 mm bzw. Grat können die Gerätebuchsen zerstört werden.
- *If the inner cable conductor diameter is greater than 1.2 mm or in case of burr, the device sockets may be destroyed.*

Bitte installieren Sie die Anschlüsse gemäß dem Aufdruck

Please install according to the sticker on the Multiswitch

Hinweis: Elektrische Installationen sollten nur durch geschultes Fachpersonal vorgenommen werden!

Note: Electrical installations should only be done by well-educated and skilled technicians!

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