

## Quick&Dirty - Basic Settings IGS-700 S2x for first contact novices:

Anyway, we recommend following setup-scenario and changing all static IP addresses accordingly like e.g.:



Login 192.168.0.136 per module. admin/admin = default.

Important: If you will connect both NetworkManagementS ethernet Ports to the same switch: Please change the IP address of at least one of the NMS Module ports to avoid IP conflicts:

			BLANK	
Summary	Network			
▶ Status	NMS			
Parameters         Tuner         Setting         Output         System         Network         Password         Configuration         Firmware		IP Address: Subnet Mask: Gateway: Web Manage Port: MAC Address:	192.168.0.136         255.255.255.0         192.168.0.1         80         2a:c4:92:1a:04:02	
<ul> <li>Reboot</li> <li>Date   Time</li> </ul>	DATA			
►Log		IP Address: Subnet Mask: Gateway: MAC Address:	192.168.2.136         255.255.255.0         192.168.2.1         2a:d4:92:1a:04:02	

## Set Tuner:

	runer								
Summary									
► Status									
Parameters		#	Tuner		TS LOCK	Signal			_
				Tuper 1					×
▶ Tuner				Tuner I					
▶ Setting									
▶ Output									
System					Frequency:	10773.000	MHz		
- Cy otom					LNB Frequency:	9750	MHz	N	
▶ Network					Symbolrate:	22000	Kene	3	
Password					oymboliate.	22000	Гора		
Configuration					LNB Voltage:	18 V 🗸			
Firmware					22K:	OFF v			
Reboot					Satellite:	1	(1~4)		
Date   Time									
► Log									
								Apply	Close

Set Tuner 2 Accordingly – or if you have 4 Tuners per module set all 4.

Loading,please wai	t5 pleas	e always ı	use the right APPL	f button in your l	browser.	
BLANKOM Summary	Tuner					
▶ Status	#	Tuner	TS Lock	Signal	Parameters	Action
	1	DVB-S2	42.145 Mbps	Quality:         54%           Strength:         68%           Power:         -31.82 dBm           C/N:         13.50 dB           BER:         0.00e+00	Frequency: 10891.000 MHz LNB Frequency: 9750.000 MHz Symbolrate: 22000 Ksps LNB Voltage: 18V 22K: OFF Satellite: 1	Edit
<ul> <li>Passwird</li> <li>Configuration</li> <li>Firmware</li> <li>Date   Time</li> <li>Log</li> </ul>	2	DVB-S2	41.903 Mbps	Quality:         53%           Strength:         74%           Power:         -25.29 dBm           C/N:         13.25 dB           BER:         0.00e+00	Frequency: 11053.000 MHz LNB Frequency: 9750.000 MHz Symbolrate: 22000 Ksps LNB Voltage: 18V 22K: OFF Satellite: 1	Edit

If BER=0 and Power is better than -40dBm, than the signal input is sufficient.



# Now change to Settings and PARSE the Tuner Inputs to get the DVB-Transportstream values:

	Setting	
Summary		
► Status		
Parameters	Mux CI Card BISS	
▶ Tuner		
► Setting	+ 🗡 × 💼	
► Output	$\Rightarrow$ Lose $\Rightarrow$ Locked	
System	⇒1: Tuner 1 [46.3/47.9M]	
▶ Network	⇒3: ASI [0.0/0.0M]	
▶ Password		Pit Pit
► Configuration		Refr
► Firmware		Refre
Reboot		
► Log		
		====:
		-
		AI
		All
	Parse program time out: 60 seconds	
	All Output	
Parse program time out: 60 seconds		
Now you see the content of the trans	sponders:	
+ / x m	⇒Lose ⇒ Locked	
	[4] □ →1: Tuner 1 (prog: 0/9) [4	6.0/47.9M]
⇒Lose ⇒ Locked	T1: □ [21100] ANIXE HD	
1: Tuner 1 (prog: 0/9)		
1: ∐ [21100] ANIXE HD	₩ 4: □ [21107] ShopLC HD	R
□ 2: □ [21103] QVC HD	● 5: □ [21108] WELT HD	Re
"#"3: □ [21104] HSE HD	6: 🗖 [21112] Nicer Dicer TV	=
<sup>tet</sup> 4: □ [21107] ShopLC HD	📕 📴 7: 🔲 [21113] Genius Plus	
<sup>⊞·</sup> 5: □ [21108] WELT HD	₩8: □ [21118] WELT HD	=
<sup>⊕</sup> .6: □ [21112] Nicer Dicer TV		
<sup>⊕</sup> 7: □ [21113] Genius Plus	2: iuner 2 (prog: 0/26) [4	2.2/42.6M]
<sup>⊕</sup> '8: □ [21118] WELT HD	■ 1:0000 Hb Brandenburg HB	
<sup>⊕.</sup> 9: □ [21199]	■ 10352] MDR Sachsen HD	
-→2: Tuner 2	[42.2/42.6M] 🚽 🗎 🗄 4: 🗖 [10353] MDR S-Anhalt HD	
⇒3: ASI	[0.0/0.0M]	~
Some might be RAVTV encrypted		

Some might be PAYTV encrypted.

You can check this with the Internet Transponder listings here www.satindex.de -> ASTRA, FreeToAir TVs showing only:



Audio Infos | Crypt Infos

» DVB-S2, 8PSK, Frequenz 10773 MHz, Polarisation H, Symbolrate 22000, FEC 3/4										Audio Infos   Crypt Infos		
Sender (8) / HI	DTV / St	atus / L	and / Ka	ategorie	s	ID / Video	PID / Audio PID / P	CR PID /	VT PID / U	Jpdate		
ANIXE HD	HD			Allgemein	21100	255	259   deu	255	0	01.03.2011		
Genius Plus				Shopping	21113	3327	3328   deu	3327	0	10.02.2015		
HSE HD	HD			Shopping	21104	1279	1283   deu	1279	36	27.01.2022		
Nicer Dicer TV				Shopping	21112	3071	3072   deu	3071	0	25.01.2022		
QVC HD	HD			Shopping	21103	1023	1027   deu	1023	35	01.09.2011		
ShopLC HD	HD			Shopping	21107	511	512   deu	511	0	11.01.2022		
							513   eng					
WELT HD	HD	9		Nachrichten	21108	767	771   deu	767	34	19.01.2018		
WELT HD	HD		=	Nachrichten	21118	767	771   deu	767	34	19.01.2018		

» DVB-S. OPSK. Frequenz 10788 MHz. P

So you see WELT HD in 2 Languages are encrypted. If you do not have the right CAM to insert into a corresponding CI-SLOT, you can skip these for passing to the Output.

Now we select them all to push them to the output section on the right:

First you can use CA-Filter = ON to filter out unnecessary TS-PIDs related to the encryption data streams and you almost do not need to do a PID remapping:



Select what you probably want to stream:



As you can see if opening the menu '+' button: Many CAS-Data are transported. You do not need them if you want only Free TVs/Radios to stream:

PUSH them to OTHER =  $\rightarrow$ 



⇒Lose ⇒ Locked			⇒Normal → Overflow	
<sup>‡</sup> ⇒1: Tuner 1 (prog: 6/9)	[46.4/47.9M] ^		→MPTS Output(Mux)	[41.0/80.0M]
- →2: Tuner 2 (prog: 0/26)	[42.2/42.6M]	🗹 CA Filter	···→CAM-A (prog: 0)	[0.0M]
1: [10350] rbb Brandenburg HD		PID Remap	→CAM-B (prog: 0)	[0.0M]
🗄 2: 🔲 [10351] rbb Berlin HD		Defeature	⇒BISS (prog: 0)	[0.0M] [41.0M]
🖲 3: 🔲 [10352] MDR Sachsen HD		Refresh input		[41.00]
<sup>⊞.</sup> 4: □ [10353] MDR S-Anhalt HD		Refresh Output		
<sup>⊕.</sup> 5: □ [10354] MDR Thüringen HD		===> CAM-A		
🖹 6: 🔲 [10355] hr-fernsehen HD		===> CAM-B		
🖽 7: 🗖 [10465] hr1		===> BISS		
🗄 8: 🔲 [10466] hr2				
🗉 9: 🔲 [10467] hr3				
🖲 10: 🔲 [10468] hr4		<===		
🗄 11: 🔲 [10469] YOU FM				
🖽 12: 🔲 [10470] hr-iNFO				
13: 🔲 [10474] MDR SACHSEN DD		All Input		
🖽 14: 🔲 [10475] MDR S-ANHALT MD	~	All Output		

#### Proceed with the 2<sup>nd</sup> Tuner:

+ 🗡 🗙 🏛



As you can see the 2<sup>nd</sup> Transponder does not contain any CAS- DataPIDs bwecasue all of the TVs and Radios are Free. 'hr1' is a radio and contains only an AAC MPEG4-Audio stream PID. Now we have:



A lot of TV and a Radio service we are ready to stream. Before you can manipulate their Names or some other parts:



#### Just to compare:

$\Rightarrow$ Lose $\Rightarrow$ Locked			→Normal → Overflow	
⊨ →1: Tuner 1 (prog: 6/9)	[46.1/47.9M] ^		→MPTS Output(Mux)	[73.9/80.0M] 🔨
🛱 1: 🗹 [21100] ANIXE HD		🗹 CA Filter	···→CAM-A (prog: 0)	[0.0M]
Program Number: 21100		PID Remap	→CAM-B (prog: 0) →BISS (prog: 0) □→Other (prog: 13)	[0.0M] [0.0M] [73.9M]
		Refresh Output	1: □ ANIXE HD <=Tuner 1 [21100]     □ Program Norther: 21100	[]
CAS ID: 0x1830_EMM PID: 0x1003		===> CAM-A		
CAS ID: 0x09c4_EMM PID: 0x1008		===> BISS	<ul> <li>Bervice Provider: BetaDigital</li> <li>PMT PID: 0x0060</li> </ul>	
CAS ID: 0x098d_EMM PID: 0x1008		===> Other		
CAS ID: 0X1860_EMM PID: 0X1007		<===	Contraction Contr	
CAS ID: 0x06e2_EMM PID: 0x1033			Sections PID: 0x0105      Sections PID: 0x0105      Sections PID: 0x0106      Sections PID: 0x0107	
		All Input		
🖳 🗒 3' 🔽 [21104] HSE HD	$\sim$	All Output		~

The unwanted CAS-PIDs are filtered out.

Open the Menu by clicking on the Service – here ANIXE HD – in red – that opens a popup window:

Program Information		[close]
Program From Input:	Tuner 1 [21100]	
Service Name:	ANIXE HD	
Program Number:	21100	
Logic Channel Number:	1	
Service Type:	0x19	
Service Provider:	BetaDigital	
PMT Descriptor Tag:	<b>O</b> x00	
PMT Descriptor Data:	(Hex)	Va Nu
PMT PID:	0x0060	x1
PCR PID:	0x00ff	50
MPEG-4 Video PID:	0x00ff	f
AC3 Audio PID:	0x0103	20
Private Sections PID:	0x0105	ID:
User defined PID:	0x0106	pn: Pl
User defined PID:	0x0107	PI
20		er
		Apply Close

You should only manipulate what you really know it takes a particular effect on the Tables.

Example change the name:



Program From	Input:	Tuner 1 [21100]		Service Name:	A_NixiT-HighDefinition	ו
Service	Namo			Program Number:	21100	]
Drogram N	maine.		-	Logic Channel Number:	1	]
Piograminu	uniber.	21100	_	Service Type:	0x19	]
Logic Channel NU	imber:	1	_	Service Provider:	BetaDigital	]
Service	e Type:	0x19	_	PMT Descriptor Tag:	🗖 0x00	
Service Pro	ovider:	BetaDigital		PMT Descriptor Data:		(Hex)
PMT Descripto	or Tag:	🗖 0x00		PMT PID:	0x0060	]
PMT Descriptor	r Data:		(Hex)	PCR PID:	0x00ff	]
PM	T PID:	0x0060		MPEG-4 Video PID:	0x00ff	]
PCI	R PID:	0x00ff		AC3 Audio PID:	0x0103	]
MPEG-4 Vide	o PID:	0x00ff	ī	Private Sections PID:	0x0105	]
AC3 Audio PID: 0x01		0x0103	٦	User defined PID:	0x0106	]
Private Sections PID: 0v		0x0105	٦ ٦	User defined PID:	0x0107	
	d PID:	0x0106	-			
User define		0x0107				Apply Close
User denne	a PID.	0,0107				- Ching
						_
CA Filter		CAM-A (prog: 0)			[M0.0]	
		CAM-B (prog: 0)			[0.0M]	
□ PID Remap →BISS (prog: 0)				[0.0M]		
Refresh Input	⊡ ⇒	Other (prog: 13)			[77.3M]	
Bofrach Output	÷.	1: 🗖 A_NixiT-High	Defin	ition <=Tuner 1 [21100	0]	
Refresh Output		2. OVC HD <=1	uner	11211031		
===> CAM-A	Ţ.			4 [04404]		
Pr3: □ HSE HD <=Tuner 1			1 [21104]			

## That's it... it is a good time to safe your settings:

BLANIQM	Configuration
Summary	
Status	
Parameters	Save Restore Factory Set Backup Load
► Tuner	
► Setting	When you change the parameter you should save configuration otherwise the new configuration will lost after
► Output	reboot.
System	
▶ Network	
Password	Save config
Configuration	
Firmware	
▶ Reboot	
Date   Time	
►Log	

Now we want to stream and go to OUTPUT:

But First: Please avoid using the DATA-Output GbE Port at the same switch like the Network Management NMS-Port Because if you send hundreds of megabit streams unfiltered to the NMS port it may not be accessible any more. Hint: You can access the Web-Interface also via the DATA-Port:



NMS		
	IP Address:	192.168.0.136
	Subnet Mask:	255.255.255.0
	Gateway:	192.168.0.1
	Web Manage Port:	80
	MAC Address:	2a:c4:92:1a:04:02
		Ap
DATA		
	IP Address:	192.168.2.136
	Subnet Mask:	255.255.255.0
	Gateway:	192.168.2.1
	MAC Address:	2a:d4:92:1a:04:02

But your computer needs to be in the same network range. We changed the Windows PC to support multiple static IP Addresses like:

Γ

		○ IP-Adresse automatisch beziehen				
			IP-Adresse:	192.168.2.191		
	_		Subnetzmaske:	255.255.255.0		
Realtek PCIe GbE Family Controller			Standardgateway:	😼		
Konfigurieren.			ONS-Serveradresse automatisch beziehen			
Diese Verbindung verwendet folgende Elemente:		Г	Folgende DNS-Serveradressen ve	rwenden:		
🗹 🏪 AVM VPN NDIS 6 Driver	~		Bevorzugter DNS-Server:	192.168.1.1		
Internetprotection 4 (TCP/IPv4)			Alternativer DNS-Server:	9.9.9.9		
🗌 🔔 Microsoft-Multiplexorprotokoll für Netzwerkadapter						
Microsoft-LLDP-Treiber			Einstellungen beim Beenden über	pruten		
Internetprotokoll, Version 6 (TCP/IPv6)		->		Erweitert		

You do not need a Gateway – for this... sometimes better w/o. Finally enter its IP:

IGS-700		
ne to use Web Management		
BLANKOM	Status	
Summary  Status  Parameters		B
► Tuner ► Setting ► Output	an <b>IRENIS</b> brand	Selling Signals
System  Network	System Information	0 0
Password	Software Version: 16.04.27 Build 272.00 Nov	10 2022
Configuration	Hardware Version: 20.06.06	
Firmware     Date LTime	Web Version: 1.0.3	
Log	System Version: 2.20.2.67	
	Product ID: 03575d00-0000010-0000	0000-00000000
	Uptime: 0 Day-03:22:03	
	Temperature: 57.09 Degree Celsius	
	Vccint: 999.02 mV	
	VccAux: 1807.62 mV	



#### And Voila you are in w/o the NMS-port.

## Safe the config is important!!!



# We want Output:

#### The MPTS is ON by default. If the databits exceed the 80Mb/s you can increase that:

OUTPUT					
General					
	Character Encoding: MPTS Output Mode:	NORMAL V MUX V	MPTS Output Bitrate: A SI Output Mo	100 Mbps Packet Mode v	
					Apply

# But MPTS is a remultiplexed TS now containing your selected streams from the Setting-Menu side: right. We check that: Be sure your ethernet is connected to the DATA port(s) via a GbE switch and your Laptop has only one Ethernet ON (WIFI=OFF) or Metric for Ethernet is lower Value than WIFI.

Open VLC and enter the network – section:

4	VLC r	media player						_		×
Med	dien	Wiedergabe	Audio	Video	Untertitel	Werkzeuge	Ansicht	Hilfe		
Þ	Date	ei öffnen			Ctrl+C	)				
Þ	Meh	nrere Dateien öf	fnen		Ctrl+S	hift+O				
Þ	Ord	ner öffnen			Ctrl+F					
9	Med	lium öffnen			Ctrl+E	)				
÷	Netz	zwerkstreryn öff	fnen		Ctrl+N	1				
1	Aufr	nahmegerät öff	nen		Ctrl+C	:				
	Ort	aus Zwischenał	olage öffr	nen	Ctrl+V	1				
	Zule	tzt geöffnete N	ledien öf	fnen		•				
	Wie	dergabeliste in	Datei spe	ichern	Ctrl+Y	r i i				
	Kon	vertieren/Speic	hern		Ctrl+F	t				
((-))	Stre	am			Ctrl+S					
	Am	Ende der Wiede	ergabelist	e schließ	en					;
÷	Beer	nden			Ctrl+C	2		•	63%	

## Enter the MPTS address as foillowing:

IP Output										
	#	Output Enable	IP Address	Port	Protocol	Null_PKT Filter	Program	Output Bitrate	Status	Bit(Act/Max)
	MPTS		224.2.2.2	2001	UDP v				٠	73.2/100.0 M



Medien öffnen			-	×
🕑 Datei 🛛 📀 Medium	🚏 Netzwerk	III Aufnahmegerät öffn	ien	
Netzwerkprotokoll				
Bitte geben Sie eine Netzw	verkadresse ein:			
udp://@224.2.2.2:2001				~
http://www.example.com/s rtp://@:1234 mms://mms.examples.com, rtsp://server.example.org:8 http://www.yourtube.com/	stream.avi /stream.asx 080/test.sdp /watch?v=gg64x			
Mehr Optionen anteigen				

DO NOT forget the @ after

the URL udp://@IP:port of the multicast. That's a silly thing in VLC only. And you'll get:



You can check every TV service containing in this Multiplexed by:

📥 udp:/	/224.	2.2.2:2001	- VLC me	edia play	er					—		Х
Medien	Wie	dergabe	Audio	Video	Untertite	el	We	rkzeuge	Ansich	t Hilfe	2	
		Titel Kapitel				) 			-	1 043 0 Glant Pane Jublice Edit	127 la kan	
		Program	m Actiniant	Locazai	chen		•	A_NixiT	-HighDe	finition	[BetaDig	gital]
And and a second se		benutzer	vennieru	e Lesezei	chen			QVC HL	) [BetaDi	gital]		
		Rendere	r			•		HSE HD	BetaDig	gital]		
		Geschwi	ndigkeit			Þ		ShopLC Nicer D	: HD [Bet icer TV [E	aDıgıtal] SetaDigit	al]	
and Police	Ω	Vorwärts	springen	1				Genius	Plus [Bet	aDigital]	l	
	₽	Rückwär	ts springe	en				rbb Bra	ndenburg	g HD (Al	RD]	
		Zu bestir	mmter Ze	it spring	en			rbb Ber	lin HD [A	RD]		
		Pause						MDR Sa	ichsen H	D [ARD]		
100		Stopp						MDR S-	Anhalt H	ID [ARD]	l	
00:36	144	Vorheria	es					MDR Th	nüringen	HD [ARI	D]	
	<b>H</b>	Nächster						hr-ferns	sehen HD	[ARD]		
		Aufnehn	nen					hr1 [AR	D HR]			
	-	- Connection	ine in				_					

**BIANKOM®** 

Select one and VLC changes:







Plugins und Erweiterungen

Ctrl+P

Interface anpassen...

Einstellungen

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2

Kauf auf Rei

Medien       Wiedergabe       Audio       Video       Untertitel       Werkzeuge       Ansicht       Hilfe         Titel       Image: Comparison of the sector of the s
Titel       Image: Constraint of the second se
Kapitel       A_NixiT-HighDefinition [BetaDigital]         Programm       A_NixiT-HighDefinition [BetaDigital]         Benutzerdefinierte Lesezeichen       QVC HD [BetaDigital]         Renderer       HSE HD [BetaDigital]         Geschwindigkeit       ShopLC HD [BetaDigital]
Programm       A_NixiT-HighDefinition [BetaDigital]         Benutzerdefinierte Lesezeichen       QVC HD [BetaDigital]         Renderer       HSE HD [BetaDigital]         Geschwindigkeit       ShopLC HD [BetaDigital]
Benutzerdefinierte Lesezeichen     QVC HD [BetaDigital]       Renderer     HSE HD [BetaDigital]       Geschwindigkeit     ShopLC HD [BetaDigital]
Renderer HSE HD [BetaDigital] ShopLC HD [BetaDigital]
ShopLC HD [BetaDigital]
(aeschwindlickeit
Nicer Dicer TV [BetaDigital]
O         Vorwärts springen         Genius Plus [BetaDigital]
👝 🙃 Rückwärts springen 🛛 rbb Brandenburg HD [ARD]
Zu bestimmter Zeit springen rbb Berlin HD [ARD]
MDR Sachsen HD [ARD]
Stopp
01:20 MDR Thüringen HD [ARD]
Nächstes hr-fernsehen HD [ARD]
Aufnehmen
You can check the content here: 🔺 hr1 - VLC media player — 🗆 🗙
Medien Wiedergabe Audio Video Untertitel Werkzeuge Ansicht Hilfe
TI+ Effekte und Filter Ctrl+E
Medieninformation     Ctrl+1
Ocodec-Informationen Ctrl+J
VLM-Konfiguration Ctrl+Shift+W
Fernsehprogramm (EPG)

ERSTICK

■茶(■ OR-C



🛓 Aktuelle Medieninformationen 💦	_		×
Allgemein Metadaten Codec Statistiken			
Informationen über den Aufbau des Mediums oder des Streams. Muxers, Audio- und Videocodecs, Untertitel werden angezeigt.			
Herausgeber: BetaDigital V rbb Brandenburg HD [Programm 10350] Status: Running			^
Herausgeber: ARD V rbb Berlin HD [Programm 10351] Status: Running Herausgeber: ARD			
<ul> <li>MDR Sachsen HD [Programm 10352]</li> <li>Status: Running</li> <li>Herausgeber: ARD</li> </ul>			
<ul> <li>MDR S-Anhalt HD [Programm 10353]</li> <li>Status: Running</li> <li>Herausgeber: ARD</li> </ul>			
<ul> <li>MDR Thüringen HD [Programm 10354]</li> <li>Status: Running</li> <li>Herausgeber: ARD</li> </ul>			
<ul> <li>hr-fernsehen HD [Programm 10355]</li> <li>Status: Running</li> <li>Herausgeber: ARD</li> </ul>			
<ul> <li>hr1 [Programm 10465]</li> <li>Status: Running</li> <li>Tvp: FM Radio</li> </ul>			
Herausgeber: ARD HR			~
Ort: udp://@224.2.2:2001			
		Schlie	eßen

BTW: The stream contains full 100Mbit/s with not set the Nullpaket filter which is mostly too much for IPTV networks and in particular for SetTopBoxes which has only 100Mb/s RJ45 Ethernet ports.

		II Add	ress	Po	rt	Proto	col	Filter	Progr	am	Output Bit	rate	Status	Bit(Act/Max
PTS		224.2.2.2		2001		UDP	<b>v</b> )						•	72.6/100.0 M
PTS-1		224.2.2.2		3001		UDP	<b>v</b>		NULL	<b>v</b> )	15		۲	0.0/15.0 M
ton for	this m	enu is k	ottom	right:	So doi	n't me	ess up	with the	GEN	ERAL	OUTPU	Т Арр	ly Butt	on top
	224.2.2.2		3012		UDP	*		NULL	~	15		۲	0.0/1	5.0 M
	224.2.2.2		3013		UDP	~		NULL	~	15		۲	0.0/1	5.0 M
	224.2.2.2		3014		UDP	×		NULL	<b>v</b> )	15		۲	0.0/1	5.0 M
	224.2.2.2		3015		UDP	*		NULL	×)	15		۲	0.0/1	5.0 M
	224.2.2.2		3016		UDP	V		NULL	V	15		۲	0.0/1	5.0 M
	orts-1	PTS-1	PTS-1     224.2.2.2       con for this menu is k       224.2.2.2       224.2.2.2       224.2.2.2       224.2.2.2       224.2.2.2       224.2.2.2	PTS-1     224.2.2.2       con for this menu is bottom       224.2.2.2       3012       224.2.2.2       3013       224.2.2.2       3014       224.2.2.2       3015       224.2.2.2       3016	PTS-1     224.2.2.2     3001       con for this menu is bottom right:     224.2.2.2     3012       224.2.2.2     3013     224.2.2.2       224.2.2.2     3014     224.2.2.2       224.2.2.2     3015     224.2.2.2       224.2.2.2     3016	TS-1       224.2.2.2       3001         con for this menu is bottom right:       So dor         224.2.2.2       3012       UDP         224.2.2.2       3013       UDP         224.2.2.2       3014       UDP         224.2.2.2       3015       UDP         224.2.2.2       3016       UDP	PTS-1       224.2.2       3001       UDP         con for this menu is bottom right:       So don't menu         224.2.2       3012       UDP         224.2.2       3013       UDP         224.2.2       3014       UDP         224.2.2       3015       UDP         224.2.2       3016       UDP	PTS-1       224.2.2       3001       UDP         con for this menu is bottom right:       So don't mess up         224.2.2       3012       UDP          224.2.2       3013       UDP          224.2.2       3013       UDP          224.2.2       3014       UDP          224.2.2       3015       UDP          224.2.2       3016       UDP	vrs-1       224.2.2.2       3001       UDP v       V3         con for this menu is bottom right:       So don't mess up with the         224.2.2.2       3012       UDP v       NULL         224.2.2.2       3013       UDP v       NULL         224.2.2.2       3014       UDP v       NULL         224.2.2.2       3015       UDP v       NULL         224.2.2.2       3016       UDP v       NULL	MTS-1       224.2.2.2       3001       UDP v       Ivid NULL         con for this menu is bottom right:       So don't mess up with the GEN         224.2.2.2       3012       UDP v       NULL v         224.2.2.2       3013       UDP v       NULL v         224.2.2.2       3014       UDP v       NULL v         224.2.2.2       3015       UDP v       NULL v         224.2.2.2       3016       UDP v       NULL v	MTS-1       224.2.2.2       3001       UDP       NULL         con for this menu is bottom right:       So don't mess up with the GENERAL         224.2.2.2       3012       UDP       NULL       15         224.2.2.2       3013       UDP       NULL       15         224.2.2.2       3014       UDP       NULL       15         224.2.2.2       3015       UDP       NULL       15         224.2.2.2       3016       UDP       NULL       15	vrs.1       224.2.2.2       3001       UDP v       NULL v       15         con for this menu is bottom right:       So don't mess up with the GENERAL OUTPUT         224.2.2.2       3012       UDP v       NULL v       15         224.2.2.2       3013       UDP v       NULL v       15         224.2.2.2       3014       UDP v       NULL v       15         224.2.2.2       3015       UDP v       NULL v       15         224.2.2.2       3016       UDP v       NULL v       15	MTS-1       224.2.2.       3001       UDP       IV       NULL       15         con for this menu is bottom right:       So don't mess up with the GENERAL OUTPUT App         224.2.2.       3012       UDP       NULL       15         224.2.2.       3013       UDP       NULL       15         224.2.2.       3014       UDP       NULL       15         224.2.2.       3015       UDP       NULL       15         224.2.2.       3016       UDP       NULL       15	MTS-1       224.2.2.       3001       UDP       Image: Null with the GENERAL OUTPUT Apply Butter         con for this menu is bottom right:       So don't mess up with the GENERAL OUTPUT Apply Butter         224.2.2.       3012       UDP       NULL with 15       0.0/1         224.2.2.2       3013       UDP       NULL with 15       0.0/1         224.2.2.2       3014       UDP       NULL with 15       0.0/1         224.2.2.2       3015       UDP       NULL with 15       0.0/1         224.2.2.2       3016       UDP       NULL with 15       0.0/1

But we do not want null packets in SPTS so independent from the output bitrates:



#### Now we want to see an SPTS:

IGS-700										
Welcome to	_									
BLANKOM	Output									
Summary	General									
Parameters		Character Encoding	: NORMAL	~	MPTS Output Bi	trate: 120	Mbps			
► Tuner		ASI Output Mode:	Packet Mode	~						
► Output										
System										
Network     Password	IP Output									
Configuration     Firmware     Date   Time		Output # Enable	IP Address	Port	N Protocol	ull_PKT Filter Program	TS ID	ON ID	Output Bitrate	Status Bit(Act/Max)
► Log	Protect           Person           P									
		SPTS-1	225.2.2.2	30002	UDP v	✓ (rbb Branc ∨	1 1	1	5	7.3/15.0 M
		SPTS-2	225.2.2.2	30004	UDP v	V (rbb Berlir V	1	1	5	7.3/15.0 M
		SPTS-3 🔽	225.2.2.2	30006	UDP v	MDR Sac v	1 1	1	5	15.0/15.0 M
		SPTS-4 🗹	225.2.2.2	30008	UDP v	MDR S-A v	1	1	5	15.0/15.0 M
		SPTS-5 🗹	225.2.2.2	30010	UDP v	MDR Thủ 🗸	1 1	1	5	15.0/15.0 M
		SPTS-6 🗹	225.2.2.2	30012	UDP v	hr-fernset 🗸	1	1	5	e 15.0/15.0 M
		SPTS-7 🗹	225.2.2.2	30014	UDP V	✓ (hr1 ∨)	1 1	1	5	0.8/15.0 M
		SPTS-8	225.2.2.2	30016	UDP V	▼ tagesscha ∨	1	[1	5	3.6/15.0 M
		SPTS-9	225.2.2.2	30018	UDP V		1 1	[	5	5.2/15.0 M
		SPTS-10 V	225.2.2.2	30020		SR Ferrer V			5	7.0/15.0 M
	Image: Second control of the second									
	SPT5-8       Ø       225.2.2.2       jourio       UUP v       Ø       It       I									
APPLY please:	Scroll down and	l look on t	his page l	oottom ri	ght:					
SPTS-15  225	i.2.2.2 30030	UDP	<ul> <li>✓</li> </ul>	NULL V	1	1	15	•	0.0/15.0 M	
SPTS-16 225	30032	UDP	<ul> <li></li> </ul>	NULL V	1	1	15		0.0/15.0 M	
										Apply
										J
So you see the	bitrates now:									
SPTS-4	225.2.2.2	0008	UDP V	N	IDR S-A V		1	15	•	9.5/15.0 M
SPTS-5	225.2.2.2 3	0010	UDP v	N	IDR Thũ 🗸 1		1	15	•	9.5/15.0 M
SPTS-6	225.2.2.2	0012	UDP V	<b>V</b> h	r-fernset 🗸 1		1	15	•	15.0/15.0 M
SPTS-7	225.2.2.2	0014					1	15		0.8/15.0 M
								10		6.6715.6 M 62
If the LED beco	mes red, please	increase	the 15 to	maybe 20	J:					
hr-fernset v	1	1		20						
(				- hr		> APPLY a	nd so it wo	rks:		
SPTS-5 🔽	225.2.2.2 30	010	UDP v	\[         \]     \[	IDR Thū 🗸 🔤		1	15	•	13.5/15.0 M
SPTS-6 🗹	225.2.2.2 30	012	UDP v	Image: Control of the second secon	r-fernset v		1	20		20.0/20.0 M
SPTS-7	225.2.2. 30	014	UDP v	<b>v</b> (h	r1 v) 1		1	15		0.8/15.0 M
Interview	nset 🗸 🛛 1	· · · · · · · · · · · · · · · · · · ·	1	20		•	17.1/20.0	M		
							N			

The HR-Fernsehen TV Service sends with higher bitrates so you must consider peaks.

BTW: We recommend to change the UDP IP addresses and the port-numbers but basically it works by keeping them and change only the ports (use numbers > 10000 please). RTP port number should be 'Even' and the Even+1 should be not used.

Check by VLC:





# Check VLC- Content in:

dien	Wiedergabe	Audio	Video	Untertitel	Werkzeuge	Ansicht	Hilfe
	<b>hr_</b> но				111 Effekte Spursy	und Filter nchronisieru	Ctrl+E ng
					0 Medier	ninformation	n Ctrl+l
					Codec-	Information	ien Ctrl+J
					VLM-K Fernsel	onfiguration hprogramm	Ctrl+Shift+W (EPG)
					D Meldur Plugins	ngen s und Erweite	Ctrl+M erungen
					A Interfac	ce anpassen.	
					Reinstell	ungen	Ctrl+P



Aktuelle Medieninformationen	_		Х
Allgemein Metadaten Codec Statistiken			
Informationen über den Aufbau des Mediums oder des Strea	ms.		
Muxers, Audio- und Videocodecs, Untertitel werden angezeig	jt.		
Originale ID: 5351			Î
Typ: Video			
Videoauflösung: 1280x720 Pufferahmessungen: 1280x720			
Bildwiederholrate: 50			
Decodiertes Format:			
Ausrichtung: Oben links Grundfarben: ITLLB BT 700			
Farbübertragungsfunktion: ITU-R BT.709			
Farbraum: ITU-R BT.709 Bereich			
Farbsättigungslage: Links		3	
✓ Stream 1 Optimized a ID: 5353			
Codec: MPEG Audio laver 1/2 (mpga)			
Sprache: Deutsch			
Typ: Audio			
Kanäle: Stereo			
Abtastrate: 48000 Hz			
Bitrate: 192 kB/s			
✓ Stream 2			
Originale ID: 5353			
Codec: MPEG Audio layer 1/2 (mpga)			
Sprache: Deutsch Beschreihung: Audio description for the visual	vimnaired		
Typ: Audio	ympuncu		
✓ Stream 3			
Originale ID: 5357			
Codec: MPEG Audio layer 1/2 (mpga)			
Beschreibung: Clean audio for the bearing imp	aired		
Typ: Audio			
✓ Stream 4			
Originale ID: 5354			
Codec: leletext (telx)			
Beschreibung: Teletext			
Typ: Untertitel			
✓ Stream 5			
Originale ID: 5356			
Sprache: Deutsch			
Typ: Audio			
✓ Stream 6			
Originale ID: 5355			
Codec: DVB Subtitles (dvbs)			
Beschreibung: DVD-Untertitel: für Gehörgeschä	idiate		~
rt: udp://@225.2.2.2:30012			
		Schlie	ßen
		Schile	aven

Don't forget to save:



IGS-700	
Welcome to use We	2023-02-07 15:20:54
BLANKOM	Configuration
Status Parameters	Save Restore Factory Set Backup Load
<ul> <li>► Tuner</li> <li>► Setting</li> <li>► Output</li> </ul>	When you change the parameter,you shoud save configuration,otherwise the new configuration will lost after reboot.
System Network Password Configuration	Sarie config
Firmware     Date   Time     Log	

So, we check the Muxed MPTS first. In MPTS all are in we selected to the output.

Then HR-Fernseh SPTS stream with an analyser now:





Home Decoding TR 101 290 Recording	View Teletext		
MPEG-TS ATSC Freeze	Alias 🗸 🕞		
OTT V DVB C Refresh 2: IP (Local IP: 192	2.168.0.196) • URL udp:// • 225.2.2:30012 •		
ATSC 3.0 ISDB X Reset	Info		
Mode TS Standard Settings	Input Adapter		
PID info (15)	Transport stream 1		
	E		
17 SDT-actual (58 kbps / 0.3%)	🖕 🗉 hr-fernsehen HD (17.0 Mbps / 98.6%)		
🖶 🗢 2171 13818-6 type B (150 kbps / 0.9%)	⊕		
• <b>2276 13818-6 type C</b> (8.7 kbps / 0.05%)	🕀 🗲 2276 13818-6 type C (8.7 kbps / 0.05%)		
Bin 5350 PMT (116 kbps / 0.00%)	S351 AVC/H.264 Video (15.0 Mbps / 87.3%)     S351 AVC/H.264 Video (15.0 Mbps / 87.3%)		
5351 AVC/H-264 Video (15.0 Mbps / 87.3%)	PID: 3331		
Bitrate: 15.030.929 bps / 87.3%	⊕ Statute (Statute Statute St		
u	Stream ID: 224		
PCR: Yes			
Scrambled: No			
CC Errors: 0	⊕		
Type: AVC/H.264 Video	⊕ 100 5355 PES Private Data 1 (26 kbps / 0.2%)		
Stream ID: 224	B → J 5356 AC-3 Audio (461 kbps / 2.7%)		
3555 Wred-1 Addio (196 kbps / 1.2%)	PMT PID: 5350		
	Provider: ARD		
🗄 😼 Bitrate: 461.151 bps / 2.7%	Tables		
⊕® ES Info	🛱 📲 PAT		
@ PCR: No	Table ID: 0		
Scrambled: No	Transport stream ID: 1		
CC Errors: 0	Program: 10355 (hr-fernsehen HD)		
Stroom ID: 190			
□ 5357 MPEG-1 Audio (198 kbns / 1.2%)	Program: 10355 (hr-fernsehen HD)		
Bitrate: 198.274 bps / 1.2%	SDT-actual		
⊕ ES Info	⊡		
····· @ PCR: No			
Scrambled: No	Transport-Stream ID: 1		
	I Original Network ID: 1		
	Gervice: 10355 (hr-fernsehen HD)		
Stream ID: 192			
H I PID TS Grid	H         PID         TS         Grid         TV         Teletext         PCR         TR 101 290		
Messages II ×	Trace bar 🛛 🕹 🕹		
02/07/2023 - 15:24:42 Input signal detected			
02/07/2023 - 15:24:42 Synchronized to stream with 188-byte packets 02/07/2023 - 15:29:57 Lost input signal	100.0Mbps		
02/07/2023 - 15:29:58 Input signal detected	60.0M0ps		
	юморя		
	40.0M0ps		
III I DI Info	Riturate TP 101 200		
system			
Ready	188 Byte   17.170.237bps / 100.0%   MPEG-TS   IP   225.2.2:30012		

See the difference: Single against multiplexed streams... HR is driving with very high bitrates even its just only 720p50:

Codec: H264 - MPEG-4 AVC (part	10) (h264)	
Typ: Video		
Videoauflösung: 1280x720		
Pufferabmessungen: 1280x720	N	
Bildwiederholrate: 50	6	but carries multiple Audios and Dolby AC3 and many AIT
		but curries multiple radios and bolog res and many rin

Data for HbbTV.

That was the Quick and Dirty...