

# Processor 8ASI / DVB-S2 (S) RF

CAS ID 4AEC

User's Manual



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## Overview

The 8ASI DVB-S2 (S) Processor is a multifunction device intended for multichannel DVB-S2 (S) broadcasting. It provides TS re-multiplexing, scrambling, modulating and Up-converting.

- The processor re-multiplexes up to 8 input Transport Streams(TS) and forms a spectrum in the DVB-S2(S) format transmitted at Radio frequency.
- Standard SD/ HD DVB-S2(s) receivers can be used as subscriber receivers.
- IP output can be used to transport one of the packages via IP network or monitor one of the packages chosen from output or input stream at your PC.

The single Processor allows you to organize DVB-S broadcasting of ~8 programs, as well as a system for monitoring of channels on your PC. The Processor can replace the remultiplexer, scramblers, DVB-S2 Modulator and UP-converters.

## Construction

The processor has a monblocking design –19`` REC mounted 1U Contains the main board with the input and output connectors, power supply.

### Front panel



The front panel Indicators:

1	Power
2	Power Indicator LED
3	LED Indicator
4	Indicator `s control button

INPUTS 1-8. Indication of the ASI stream at the relevant input.

I.

*OVERFLOW* - Built-in multiplexers has an indicator showing the maximum allowable stream is exceeding.

This is due to the fact that the input streams typically have a variable bit rate, and at the Processor settings time the forming steam may be correct, but during a broadcast time either of the input streams may increase and cause spillage of the subscriber images. To avoid this on the important channels, it is possible to assign one channel as the one that may be subject to restrictions.

1.	In 1 – In 8 ASI inputs i
2.	Out, Out 2 - 2 ASI outputs
3.	RF Out. Radio Frequency output
4.	ETHERNET / IP Output RJ45 connector
5	FAN
6	Ground pole
7	AC 220V
8	Fuse

### **Main features**

- 8 ASI Inputs re multiplexing
- Modes: DVB-S or DVB-S2
- Output modulation QPSK or 8PSK
- Software update/upgrade.
- DVCrypt CAS support.
- EPG, OTA, LCN support, Network Search.
- Up to 92 PID
- Adjustable level of the output RF signal.
- Quick replacement of the device in the system without stream rescan
- MPEG-2, MPEG-4/AVC, HD / SD and 3D support.
- Automatic and manual PID insertion;
- Connection to PC: Ethernet 100 E-base, RJ45.
- IP Output with Staffing Off function.
- IP output: Supported protocols RTP, RTP+,UDP.
- IP output can be used to transport one of the packages via IP network.
- Visual monitoring the input and output streams with the free program DVCrypt Ts Monitor via IP
- IP allows you to record the output ASI stream to the PC for further analysis.
- Quick replacement of the device in the system without stream rescan.

	Specification		
	INPUT INTERFACE		
ASI Inputs 8 DVB ASI streams, 8 BNC Conne			
ASI OUTPUTS			
2 DVB-ASI Outputs 2 DVB ASI, 2 port, 2 BNC Connect			
	RF Output		
Connector	F-type		
Frequency range:	70-1700 MHz (adjustable)		
Output RF signal level	80-100 dB/uV, adjustment -10dB/uV;		
	MODULATION		
STANDARD	DVB-S /S2		
Modulation type	QPSK/ 8PSK		
Symbol Rate	6750 - 3500 ksym/s		
Rolloff factor         0,2 ; 0,25 ; 0,35			
IP TS	S Output and Ethernet control		
Ethernet type:	100/1000 mbit/s (RJ-45)		
Format:	UDP/IP, RTP/IP		
IP Address Format:	Multicast, Unicast		
TS Packet format:	188 Byte		
	General		
Power:	~220V+\-20%		
Power Consumption:	Max 20W		
Size:	19``, 1U 480*45*180 (mm)		
Weight:	3,5 Kg		

## Connections

AC In 220B 50Hz+ Fuse



GND



**Grounding Terminal** 

When connecting this unit to any other component, make sure that it is properly grounded by connecting this terminal to an appropriate point. When connecting, use the socket and be sure to use wire with a cross-sectional area of at least 1.0 mm.

### ASI Inputs



"IN1 – IN8" Input signals must comply with the EN 50083-9:1998 standard.

### ASI Outputs



2 ASI Outputs: Each of this 2 outputs has the same ASI stream

## RF Output.

RF OUT F Connector. Frequency range 70-1700 MHz (adjustable)

## IP Out



RJ45 connector for the IP Out and Ethernet Control



## **Operation common information**

Processor must be connected to the PC for the settings, control and Update and Upgrade. (The rear panel RJ45 connector)

The Processors have built-in system time synchronization. The control computer is synchronized from the source time signal and in turn synchronizes the Processor. The processor provides a timing signal that is synchronized receiver. In case of loss of signal synchronization whole system will work, but showing the wrong time. DVCrypt program will write this in the server log.

### Environment Requirement

Environment Temperature 5~40°C(sustainable), 0~45°C(short time),

Installing air-conditioning is recommended

Power Requiring device power, air-conditioning power and lighting power are independent to each other. Device power requires AC power 220V 50Hz. Please carefully check before running.

Machine Hall Floor Electric Isolation, Dust Free, Ground anti-static material.

#### Grounding Requirement

Good grounding is the basis of reliability and stability of devices. Good grounding are the most important guarantee of lightning arresting and interference rejection.

Coaxial cable's outer conductor and isolation layer should keep proper electric conducting with the metal housing of device.

Grounding conductor must adopt copper conductor in order to reduce high frequency impedance, and the grounding wire must be as thick and short as possible.

It is prohibited to use any other device as part of grounding electric circuit

The area of the conduction between grounding wire and device's frame should be no less than 25mm<sup>2</sup>.

## The System Installation.

To obtain a workable system, it is necessary:

- 1. Operating System: Windows XP, or Windows server 2003/2008.
- 2. DVCrypt program
- 3. HUB/switch for local area computer networks for simultaneous connection of all the Processors to a single computer.

RJ45 connector cable to the HUB connection:

	RJ45	RJ45	
1	white / orange	white / orange	1
2	orange	orange	2
3	white / green	white / green	3
4	blue	blue	4
5	white / blue	white / blue	5
6	green	green	6
7	white / brown	white / brown	7
8	brown	brown	8

4. One -by one connection of all processors to the server DVCrypt and register them in the system. The system will automatically assign a number to the new Processor and will monitors the numbers of all of the processor in the system.

How to add the new Processor to the System.

Attention! All connection to the PC is required to switched off power and grounded equipment

- 1. Connect the Processor via the HUB or Switch to PC
- 2. Set the Server PC network parameters.
- 3. Install and run DVCrypt program
- 4. Click the "Processors" icon appear the "Processors" window
- 5. Click the + icon and follow the wizard's instructions to install the Processor.
- 6. If all is OK and Processor is found, it will appear in the window" Processors ".
- 7. Double click the left mouse button on the number of the processor will open the Settings window, where you must point the name of the channel fed to the Processor inputs and the frequency at which the Processor operates.
- 8. Repeat steps 1-6 for all of the Processors.

## Server PC network parameters settings.

#### Server PC requirements:

please check that following requirements are met:

- 1 CPU: 1 GHz or faster;
- 2 RAM: 1 GB or more;
- 3 HDD: at least 1 GB of free space;
- 4 LAN adapter and/or USB for modules interface;
- 5 Operating System: Windows XP, or Windows server 2003/2008.

#### Required PC setting:

The computer should be equipped with network adapter with installed TCP/IP. Network adapter properties:

Local Area Connection Properties	?
General Authentication Advanced	
Connect using:	
Intel 21140-Based PCI Fast Ethernet	<u>C</u> onfigure
This connection uses the following items:	
🗆 📮 QoS Packet Scheduler	
🗹 🐨 Network Monitor Driver	-
🗹 🐨 Internet Protocol (TCP/IP)	
•	
Install	Properties
Transmission Control Protocol/Internet Protoc wide area network protocol that provides con across diverse interconnected networks.	
Show icon in notification area when connec	ted
✓ Notify me when this connection has limited a	or no connectivity
	Cancel
<u>.</u>	

The computer IP address can be assigned statically or dynamically (DHCP). As example IP address is 192.168.1.3 (shown at the Figure below).

eneral	
	utomatically if your network supports to ask your network administrator for
C Obtain an IP address automat	ically
Use the following IP address:	
<u>I</u> P address:	192.168.1.3
S <u>u</u> bnet mask:	255 . 255 . 255 . 0
Default gateway:	
<ul> <li>Obtain DNS server address at</li> <li>Use the following DNS server</li> <li>Preferred DNS server:</li> <li>Alternate DNS server:</li> </ul>	
-	Advanced

Wiring diagram is as follows:



If you need to have the Server with the other Computer in the network, we recommended to use the other diagram, in order to provide reliable communication with the Processor and additional security:



## **DVCrypt SW operation**

#### Software installation

Simply run the included DVCrypt\_Install.exe installation file and follow the prompts.

#### Starting the Control Program

The Control Program is started from the Start menu. / All Programs / DVCrypt / Control Program

When you start the program will require to choose the type of connection:

Подключение	$\mathbf{X}$
🖲 Локально	
С К серверу	localhost
Порт	8100
	OK Cancel

Locally, if the program Server installed on the same computer, or to a server, if it is installed on another PC. Then it is necessary to enter the IP address and port of the PC on which you have installed the server.

After selecting the connection window will open system of administration "Login":

admin	Администратор
Coperator Congineer	Оператор Инженер
nfo info	Информация

The program uses a system of administration which is structured as follows:

There is a main user of the DVCrypt program – Administrator. All rights to use these functions (on / off) belong to the administrator.

Administrator is enters to the program as an "administrator" with personal password and appoints the other users. The administrator also can on / off some of the functions of the program DVCrypt, necessary for the user.

The number of users and their rights determined by the administrator.

All default passwords is empty.

DVCrypt program contains two main functional modules. DVCrypt Client and DVCrypt Server.

By clicking the Login button brings you to the DVCrypt Client main window:

D/3			DVBToo	olkit Client -	Modules	-	×
Main Vi		A!\@@^^	-				
- <b>5</b> 🛄	*** 1×1 🕹 🕾	● <b>-</b> ┣ @ @ ^		<u>.</u>			
Module	Settings	Status	# [S	Label	PIDs [DEC]		

The DVCrypt Server can by started from the taskbar.:

To open the DVCrypt Server log you can click left mouse button the Server Icon the Server Log Window appear.

To open the DVCrypt Server Settings click right moue button the Server Icon and Se

select Settings. In the Server setting	s need to enable communicati	ion with the Processor - Ethe	ernet:
	Settings About DVCrypt Server ver. 3.0 [Nov 11 2013] (c) 2003 - 2013, DVL License big the product of CD	Server settings Server port 8100 Module interface IV RS-485 COM3 I Ethernet	
	Licensed to DVLab (0001, 4AEC) Subscribers 100000 DVB settings Cyrillic encoding Win-1251 LCN descriptors E-Book Network time settings Integration Billing software integration mode	✓ Bind to network adapter         192.168.32.32         ✓         SMS notifications         Enable         Setup         Debug         ✓         Enable debug logging         Keep debug information (days)         Billing ▼         Send problem report	
If the Server has a communication recommended to network interface on	Interface language	OK Cancel	single network adapter for with the Processor, it is enable the option "The
		14	

About	Server settings	
DVCrypt	Server port 8100	
Server ver. 3.0 [Nov 11 2013] (c) 2003 - 2013, DVL	Module interface	
icense	Ethernet	
Licensed to DVLab (0001, 4AEC)	Bind to network adapter	
Subscribers 100000	192.168.32.32	
VB settings	SMS notifications	
Cyrillic encoding Win-1251	Enable Setup	
LCN descriptors E-Book	Debug	
Network time settings	Enable debug logging	
ntegration	Keep debug information (days) Billing	
Billing software integration mode	Send problem report	
nterface language		
Language English		
	OK Cancel	



#### NOTE!

New Device connected to the system will be searched, their MAC and IP addresses will be listed. Search can be repeated by pressing **Refresh** button. If there are a few Devices, it is difficult to determine the Device among others. In this case you can select the Device in the list and press **Blink** button. The selected Device will flash red LED (built in Ethernet connector) three times. Next step is entering IP address of selected Device.

Select the Processor (Module) and click next.

6) Next step is the IP address of the selected Processor setting.

Select any free IP address in the range of this local network (for example, we use addresses from 92.168.1.100 to 192.168.1.200) and enter it. Network mask and Default

IAC	IP	
20:BF:DB:00:2D:CF	192.168.32.54	Refresh
		Blink

gateway should be set only if the Device will work in other subnetworks for the new Device and add it to the system.

	Processor 8	BASI / DVB-S2(S) RF User's Manue	al
1	Add new module		X
	Change network settings of the mo You can leave current settings und	odule and click <next> to proceed. changed.</next>	
	IP address	<b>192</b> . 168 . 32 . 54	
	Network mask	255 . 255 . 255 . 0	
	Default gateway	0.0.0.0	
			10-
		< Назад Далее > Отмена	
The server w	ill set the IP address for the i	new processor and add it to the system:	
_			
4	Add new module		×
	Adding new module to the system	*:	-
	If this operation takes too much tim than the system can't communicate	e ∋ with new module.	
	You can click <cancel> to stop op</cancel>		
			-
The IP will be		< Назад Далее > Отмена	address and MAC shown in Devices
window		< Назад Далее > Отмена	in Control Software. It will
		evice IP address hereafter. To	change the Device IP
address it i	is necessary to delete th	e Device from the system and ac	ld it again.

new module		-
New module was successfully add	ed to the system.	
Click <finish> to continue.</finish>		
	< Назад Готово	Отмена
	(1133d) 101080	

After adding the Device it should be set. Double click on the Device number and it will appear **Converter setting** window,

#### Notes

If the distance between the Server and Devices is rather long and there are routers, and automatic search doesn't work - in this case it is necessary to do the following:

Connect the new Device to the local network or to the Server directly and set the IP address as described above. Not waiting that the system will find and add the Converter, interrupt the adding procedure.

Connect the new Converter to remote network. Run adding procedure and select the option "The module is not listed here. Enter IP address of the module directly"

Enter IP address of the Processor (Module).

AC	IP	Refresh
		Blink

Processor 8ASI / DVB-S2(S) RF User's Manual
Add new module Enter IP address of the module and click <next> to proceed.</next>
IP address 192 . 168 . 32 . 54
< Назад Далее > Отмена
The server will try to communicate with the Device and add it to the system:
Add new module       X         Adding new module to the system       If this operation takes too much time than the system can't communicate with new module.         You can click <cancel> to stop operation.         You can click <cancel> to stop operation.         Image: Cancel&gt; to stop operation.</cancel></cancel>
Attention!

All Devices are delivered set to the IP address **192.168.0.254** or **192.168.0.253**, **n**etwork mask **255.255.255.0**.

The Devices should have different IP addresses when you add them to the system. The delivery set includes **EthernetSetup.exe** utility which makes it possible to change Device IP address and network mask. The utility doesn't require installation. Before changing the IP address connect the Device to Ethernet hub/switch, connect to it also a PC having installed network board (network board IP address should be in the Device IP address range. For example, the Device IP address is 192.168.0.254, then network board IP address can be in 192.168.0.1.. 192.168.0.254 range, network mask 255.255.255.0). Then

20:BF:DB:00:00:1E 192:168.0.222 20:BF:DB:00:08:FB 192:168.0.191	Refresh
20:BF:DB:00:08:FB 192.168.0.191	Refresh
	Blink
	Ping
	Setup
	Passport

run **EthernetSetup.exe**, the program will find the Device.

Select the device and press **Setup** button

The **Network parameters** window will appear, where you can change the Device IP address and network mask. The procedure of assigning IP address should be performed for all Devices before adding them to the system. Pressing **Ping** button you can check connection between the PC and the Device. If you press **Blink** button, the selected Device will flash red LED (built in Ethernet connector) three times.

#### Attention!

It is not recommended to change the Device IP address after the Device has been already added to the system as it will cause connection failure. To re-establish connection it is necessary to repeat procedure of adding the Device to the system again.

After finishing the new Processor will added to the main window.



*Modulation* is selected by radio buttons "CAM". The modulation by default is CAM 64

Frequency tuning is set by slider "MHz" or you can type the Frequency in the accordingly window directly.

Note The the frequency of the 1st spectrum is a priority. From its value depends on the value of the other frequencies, so you need to set the frequency of the first spectrum the first and then set the frequency of the rest.

**Output power level** is set by slider :"Output Power".or you can type it *in the accordingly window directly.* in the range 0-9db

Caution. The Processor Settings can be loaded to device after you click the "Set your settings" only. This can be done both after the all settings is finished or each of setting -separately.



## **CAS** settings

To enable the conditional access system for the selected channels in the main window: double click the Processor number -

Программа Вид ?							
🗏 📥 🖪 💭 🖓	🔊 💠 🔷 😑 🗕 🤃 🖻 🗗 🛠 🔍 A 🖉 😰 🕞 🖉 🗗	0					
(онвертер	Настройки	Статус	N [Service ID] (LCN)	Название	Условный доступ	PIDы [HEX]	
lo: 09 4ASI.DK.CAS [100000] 192.168.32.123 20:BF:DB:00:26:09	DVB-5, FEC 2/3, SR: 27500 Ksymbol/s	OK -					
o: 10 ASI.CAS [100000]		ОК -	1 [0848] 2 [1240]	Euronews RBC-TV	Открытый Открытый	V: 0A80, A: 0A81, A V: 0A88, A: 0A8C, P	
92, 168, 32, 127 D:BF:DB:00: 13:B2			3 [1241] 4 [1242] 5 [1012]	Fashion TV CNL	Открытый Открытый	V: 0A8D, A: 0A8E, A V: 0A90, A: 0A91, P	CR: 0A90
	DVB-S2, 8PSK 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16	5 Misitys	5 [1243] 6 [1244] -	MIR Publika TV	Открытый Открытый	V: 0A92, A: 0A93, P V: 0A94, A: 0A95, P	

The Condition Access settings window will appear:

OK       10810       Extreme       Separatio (01-Coustance)       11/000, 41/01, 42/01, 40/01, 4		<mark>9 - 計園伊父②小騨 10 日</mark> 日の	Статус	N [Convice TD] () Ch()	Unanau	Условный доступ	PIDы [HEX]
mic. CK [1000]       -       2 (811)       95C/V       Sapan-6 (0) - Course-sili       V 003, A 000, AV         3 (812)       3 (812)       -       3 (812)       Sapan-6 (0) - Course-sili       V 003, A 000, AV         prime koncept etai       X       3 (812)       CL       Sapan-6 (0) - Course-sili       V 003, A 000, AV         prime koncept etai       X       Sapan-6 (0) - Course-sili       V 003, A 000, AV       X       X       X       X       X       X       X       Sapan-6 (0) - Course-sili       V 003, A 000, AV       X <t< th=""><th>nep   nact</th><th>201401</th><th>CTATYC</th><th>  N [Service ID] (LCN)</th><th>Пазвание</th><th>условный доступ</th><th>  PIDBI [HEX]</th></t<>	nep   nact	201401	CTATYC	N [Service ID] (LCN)	Пазвание	условный доступ	PIDBI [HEX]
mic. CK [1000]       -       2 (811)       95C/V       Sapan-6 (0) - Course-sili       V 003, A 000, AV         3 (812)       3 (812)       -       3 (812)       Sapan-6 (0) - Course-sili       V 003, A 000, AV         prime koncept etai       X       3 (812)       CL       Sapan-6 (0) - Course-sili       V 003, A 000, AV         prime koncept etai       X       Sapan-6 (0) - Course-sili       V 003, A 000, AV       X       X       X       X       X       X       X       Sapan-6 (0) - Course-sili       V 003, A 000, AV       X <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
32,333       3 (52,13)       9 (52,13)       Pathon TV       3 (50,12)       Pathon TV			OK				V: 0700, A: 0701, A: 0
pixed scalespit (pix         X              (00.1)             336pmini (00.1-Cuastenskii)             (00.1)			*				V: 0708, A: 070C, PCR
Space       MR       Space       Space       MR       Space       Space       MR       Space       Space <td>.32.188</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>V: 070D, A: 070E, A: 0</td>	.32.188						V: 070D, A: 070E, A: 0
Sole       MR       Sole       Sole       MR       Sole       Sole       MR       Sole       S	ройки конвертера		x				
Companie							
Organisi         Organisi         Organisi         Organisi         Organisi         Proprieti         V:003, A 023, AD           2 [124] Fabron TV         - 1 [046] Saccevic         - 1 [047]	алы	Конвертер					
Organization       10000       0001       2001 </td <td></td> <td>Koweenten</td> <td>10 8651 065 (100000)</td> <td></td> <td></td> <td></td> <td></td>		Koweenten	10 8651 065 (100000)				
Constrained       2 (basi)       Featern TV       Organisal       V 0702, 4078, 403, 44         2 (basi)       2 (basi)       0 (b)       Organisal       V 0702, 4078, 403, 44         2 (basi)       0 (b)       Organisal       V 0702, 4078, 403, 44         4 (basi)       0 (b)       Organisal       V 0702, 4078, 403, 44         5 (basi)       0 (b)       Organisal       V 0702, 4078, 403, 44         5 (basi)       0 (b)       Organisal       V 0702, 4078, 403, 44         5 (basi)       0 (b)       Organisal       V 0702, 4078, 403, 44         5 (basi)       0 (b)       Organisal       V 0702, 4078, 403, 44         6 (b)       0 (b)       Organisal       V 0702, 4078, 400, 400         5 (b)       0 (b)       Organisal       V 0702, 403, 44         6 (b)       0 (b)       0 (b)       0 (b)       0 (b)         6 (b)       0 (b)       0 (b)       0 (b)       0 (b)       0 (b)         6 (b)       0 (b)       0 (b)       0 (b)       0 (b)       0 (b)       0 (b)         1 (b)       0 (b)         2 (b)       0 (b)       0 (b)       0 (b)       0 (	🗄 🛗 Открытый	Konseprep					
2       [1200]BC:IV       2       [0001] IV       Other interference       1		Изменить					
3       1(24) Fation IV       4 (ba3)       MBa       Origonali       W03, M03, M03, M03, M03, M03, M03, M03, M	2. [1240] RBC-TV	Дополнителы	H0				
4. [1242] O.N.       * [00-3]       • Aukia TV       Origensia       * 10030         5. [1234] P.Alika TV       © Origensia       * 10030       O.N.       Origensia       * 10030         6. [1234] P.Alika TV       © Origensia       * 10030       O.N.       Origensia       * 10030       * 10030         6. [1234] P.Alika TV       © Origensia       * 10030       O.N.       Origensia       * 10030 <td></td> <td>Условный доступ</td> <td>X Hammann 1</td> <td></td> <td></td> <td></td> <td></td>		Условный доступ	X Hammann 1				
5. [1243]MIR <ul> <li>§0006644 gotty)</li> <li>© Ortgensik</li> <li>I (600)</li> <li< td=""><td></td><td></td><td>настроики сети</td><td></td><td></td><td></td><td></td></li<></ul>			настроики сети				
6. [124]Publika TV         © Dropensié         V 1002, 4003, 500           9. [124]Publika TV         © Dropensié         V 1002, 4003, 500           9. [124]Publika TV         © Dropensié         V 1002, 4003, 500           9. [124]Publika TV         Orgensié         V 1002, 4003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 500           9. [120]         Publica TV         Orgensié         V 1002, 4, 2003, 100           9. [120]         Publica TV		Условный доступ	Настройки телегира				
Miletiker         Histopskik (1A         3 (100)         Publicity         Orspansik         V:0014, 2003,		6.0					
Signal         Signal<	o. [rem]r obika rv	<ul> <li>Открытый</li> </ul>	Настройки ОТА				
S [100]         THT Bavo         Organisia         V:0003, A:003, A:00           B tropol naver c         0000		C 2000 00 0					
Image: Second		ОП-социальный	🔟 олнительные настройки				
S[1000]         0K         21161         MR         Organisit         1,055, 4:05, 100           C         Organisit         0.000, 4:0			-				
OK         1         Brown         Organis         V 084, 4 085, NO           0K         Cancel         0		and the second					
A [114]         Dit Dawn         Organisă         V.986, A. 980, P.O.           C Organisă         Dit Dawn         Organisă         V.986, A. 980, P.O.           C Organisă         Dit Dawn         Organisă         V.986, A. 980, P.O.           C Organisă         Dit Dawn         Organisă         V.986, A. 980, P.O.           C Organisă         Dit Dawn         Organisă         V.986, A. 980, P.O.           C Organisă         Dit Dawn         Organisă         V.996, A. 980, P.O.           D K         Cancel         Organisă         V.996, A. 980, P.O.           D K         Cancel         V.996, A. 980, P.O.         P.I.1         Organisă         V.996, A. 980, P.O.           S (10000)         -         1 (948)         Enroreiro         Organisă         V.996, A. 980, P.O.           S (10000)         -         2 (194)         RECTV         Organisă         V.988, A. 980, P.O.           S (12000)         -         2 (194)         RECTV         Organisă         V.988, A. 980, P.O.           S (12000)         -         2 (194)         RECTV         Organisă         V.988, A. 980, P.O.           S (1241)         Fashori TV         Organisă         V.988, A. 980, P.O.         Y.988, A. 980, P.O.           S (1241)		🔲 Второй пакет с 🛛 🛛 🖯 до 🖓 об об –					
Image: Second							
Image: Second		C Granmik					
OK         1[988]         Eurorension         Origonalistic         V. 1982, A. 1981, PO           OK         1[988]         Eurorension         Origonalistic         V. 1982, A. 1981, PO           S [10000]         -         2 [1282]         R. 1985, PO         V. 1982, A. 1981, PO           S [10000]         -         2 [1282]         Rice Provide         V. 1982, A. 1981, PO           S [10000]         -         2 [1281]         Origonalis         V. 1982, A. 1981, PO           S [10000]         -         2 [1281]         Factorens         Origonalis         V. 1982, A. 1981, PO           S [10000]         -         2 [1281]         Factorens         Origonalis         V. 1983, A. 1982, PO           S [10000]         -         2 [1281]         Factorens         Origonalis         V. 1983, A. 1982, PO           S [1272         -         3 [1241]         Factorens         Origonalis         V. 1988, A. 1982, PO           D (6-52, 875; 3/4, rs = 0.25, 58; 27000 Kymboljs, bitate; 60.16 MBit/s         5 [1245]         MR         Origonalis         V. 1988, A. 1983, PO		C. Chippinger					
S [123]         Cit         Ordensitie         V.0923, A. 2005-100           OK         Cancel         V.1923, A. 2017-100         V.1923, A. 2017-100           OK         Cancel         V.1923, A. 2017-100         V.1923, A. 2017-100           S [20000]         OK         Cancel         V.1923, A. 2017-100           S [20000]         OK         10949]         Euronews         Ordensitie           S [20000]         -         2 [1241]         RBC-TV         Ordensitie           S [20000]         -         2 [1242]         RBC-TV         Ordensitie           S [1242]         Otd.         Ordensitie         V:0483, A: 0482, PC           S [1241]         Factor TV         Ordensitie         V:0483, A: 0484, PC           D (6-52, 8753)4/, rs = 0.25, SR: 27000 Kymboljs, bitrate: 60.16 MBt/p         5 [1242]         VIL         Otd. <td></td> <td>С Закрытый ООТ - Социальный</td> <td>9</td> <td></td> <td></td> <td></td> <td></td>		С Закрытый ООТ - Социальный	9				
OK         Cancel         Concentration		In the second se	-				
OK         1 [945]         Eurorens         Organisit         V: 0480, A: 0831, A2           5 [00000]         -         2 [1243]         BBC-TV         Organisit         V: 0480, A: 0840, A2           5 [00000]         -         2 [1243]         BBC-TV         Organisit         V: 0480, A: 0840, A2           5 [120000]         -         2 [1243]         BBC-TV         Organisit         V: 0480, A: 0840, A2           5 [1201]         Fadrion TV         Organisit         V: 0480, A: 0481, A2         V: 0480, A: 0481, A2           20/6-52, 875X 3/4, rs = 0.25, 58; 27000 Kymboljs, bitrate; 60.156 MBit/s         5 [1243]         MR         Organisit         V: 0480, A: 0482, A2							
OK         1 [945]         Eurorens         Organisit         V: 0480, A: 0831, A2           5 [00000]         -         2 [1243]         BBC-TV         Organisit         V: 0480, A: 0840, A2           5 [00000]         -         2 [1243]         BBC-TV         Organisit         V: 0480, A: 0840, A2           5 [120000]         -         2 [1243]         BBC-TV         Organisit         V: 0480, A: 0840, A2           5 [1201]         Fadrion TV         Organisit         V: 0480, A: 0481, A2         V: 0480, A: 0481, A2           20/6-52, 875X 3/4, rs = 0.25, 58; 27000 Kymboljs, bitrate; 60.156 MBit/s         5 [1243]         MR         Organisit         V: 0480, A: 0482, A2		OK Care	28				
OK         1 [0948]         Euroneus         Organisii         V: 0A80, A: 0A81, A:           S [100000]         -         2 [1241]         R8C-TV         Organisii         V: 0A80, A: 0A82, A:           .20.127         -         3 [1241]         Fashion TV         Organisii         V: 0A80, A: 0A82, A:           B00:1582         -         3 [1241]         CNL         Organisii         V: 0A80, A: 0A82, PC           DV6-S2, 89X 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s         4 [1242]         MR         Organisii         V: 0A80, A: 0A83, PC							
OK         1 [0948]         Euroneus         Organisii         V: 0A80, A: 0A81, A:           S [100000]         -         2 [1241]         R8C-TV         Organisii         V: 0A80, A: 0A82, A:           .20.127         -         3 [1241]         Fashion TV         Organisii         V: 0A80, A: 0A82, A:           B00:1582         -         3 [1241]         CNL         Organisii         V: 0A80, A: 0A82, PC           DV6-S2, 89X 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s         4 [1242]         MR         Organisii         V: 0A80, A: 0A83, PC							
OK         1 [0949]         Euroneus         Organisii         V: 0A80, A: 0A81, A:           \$ [100000]         -         2 [1241]         R8C-TV         Organisii         V: 0A80, A: 0A81, A:           32.127         -         3 [1241]         Fachion TV         Organisii         V: 0A80, A: 0A81, A:           300:1352         0/4 5.2, 89X 3/4, ro = 0.25, 59: 27000 Ksymbol/s, bitate: 60.16 MBit/s         4 [1242]         Oll.         Organisii         V: 0A90, A: 0A81, AO							
OK         1 [0948]         Euroneus         Organisii         V: 0A80, A: 0A81, A:           S [100000]         -         2 [1241]         R8C-TV         Organisii         V: 0A80, A: 0A82, A:           .20.127         -         3 [1241]         Fashion TV         Organisii         V: 0A80, A: 0A82, A:           B00:1582         -         3 [1241]         CNL         Organisii         V: 0A80, A: 0A82, PC           DV6-S2, 89X 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s         4 [1242]         MR         Organisii         V: 0A80, A: 0A83, PC							
OK         1 [0948]         Euroneus         Organisii         V: 0A80, A: 0A81, A:           S [100000]         -         2 [1241]         R8C-TV         Organisii         V: 0A80, A: 0A82, A:           .20.127         -         3 [1241]         Fashion TV         Organisii         V: 0A80, A: 0A82, A:           B00:1582         -         3 [1241]         CNL         Organisii         V: 0A80, A: 0A82, PC           DV6-S2, 89X 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s         4 [1242]         MR         Organisii         V: 0A80, A: 0A83, PC							
OK         1 [0948]         Euroneus         Organisii         V: 0A80, A: 0A81, A:           S [100000]         -         2 [1241]         R8C-TV         Organisii         V: 0A80, A: 0A82, A:           .20.127         -         3 [1241]         Fashion TV         Organisii         V: 0A80, A: 0A82, A:           B00:1582         -         3 [1241]         CNL         Organisii         V: 0A80, A: 0A82, PC           DV6-S2, 89X 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s         4 [1242]         MR         Organisii         V: 0A80, A: 0A83, PC							
S [10000] - 2 [1240] RBC-TV Orspansii V: GABB, A: GABC, AC .32.127 - 3 [1241] Fashion TV Orspansii V: GABB, A: GABC, AC B:00:1582 - 4 [1242] ON Orspansii V: GABB, A: GAB, A:			OK Cancel				
S (10000) - 2 (1240) RBC-TV Orxpansii V: 0488, A: 048C, AC 32.127 - 3 (1241) Fashion TV Orxpansii V: 0480, A: 0485, A: 300:13582 - 014 Ont, Orxpansii V: 0480, A: 049, PO 018-S2, 89K 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s - 5 (1243) MR Orxpansii V: 0492, A: 0493, PO							
5 [10000] - 2 [1240] RBC-TV Orxpansii V: 0486, A: 048C, AC 32.127 - 3 [1241] Fashion TV Orxpansii V: 0480, A: 0482, A: 300:13582 - 014. Orxpansii V: 0480, A: 049, PO 016:52, 85K 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s (V: 0480, A: 049, PO 016:52, 85K 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBit/s (V: 0480, A: 049, PO							
32,127 <sup>*</sup> 150:1382 · · · · · · · · · · · · · · · · · · ·	c (recent)		OK				
3:00:13:52 4 [12:42] OL Oncernavi V: 04:90, A: 04:9, PO DI B: 52, SFSK 3(4, ro = 0.25, SFX : 27000 Ksymbol)s, bitrate: 60.16 MBit/s 5 [12:43] MIR Oncernavi V: 04:92, A: 04:93, PO							
DVB-52, 8PSK 3/4, ro = 0.25, SR: 27000 Ksymbol/s, bitrate: 60.16 MBIt/s 5 [1243] MIR Orrepunsiv V: 0.492, A: 0.493, PO							
		22 905K 2/4 co - 0 25 c0 22000 Keymbolds hitsets co + 6 +	MDH (n				
	UVD-	52, 6P3K 5/4, 10 = 0.25, 5K: 27000 KSymbolyS, bitrate: 60.16 P	noida	5 [1243] 6 [1244] -	Publika TV	Открытый Открытый	V: 0A92, A: 0A93, PCR V: 0A94, A: 0A95, PCR
						1	

## **IP Outputs Settings**

Click icon «IP» on the tool-bar

IP output configuration window appears where you must to set:

- 1. Protocol (RTP, UDP, RTP +)
- 2. Port
- 3. IP address the stream will be broadcast to,
- 4. IP Stream source. The Source can be input or output stream, scrambled or not scrambled, with stuffings or without stuffings.

Main View ?					
🔲 🚠 🔒 🔳 💭 🖓 🗛 🖪	🖉 ^ 📀 🗢 🖹 🖻 😤 🔷 🔶	🍺 🕞 🖉 🖶 🚺			
Module	Settings	Status	# [Service ID] (LCN)	Label	Conditional acces
			4 [2020]		0 11 1/004
No: 08 8ASI-RF1.IPIN.UPC.CAS [10000]	Freq: 274.000 MHz DVB-C, QAM 64, SR: 6875 Ksymbol/s	OK Idle	1 [0838] 2 [11C0] -	Moldova 1 Prime	Scrambled (001 - Scrambled (001 -
192.168.32.121	DVD-C, QAM 04, SK. 0875 KSYNDOI/S	Tue	3 [110]	TV7	Scrambled (001 -
20:BF:DB:01:21:89			4 [11C2]	RTR	Scrambled (001 -
lo: 09	Freg: 282.000 MHz	IP Output Control	1 [0841]	RTR	Free-to-air
ASI-RF2.IPIN.UPC.CAS [10000]	DVB-C, QAM 64, SR: 6875 Ksymbol/s		2 [1208]	CTC	Free-to-air
		Module 12	3 [1209] -	SET	Free-to-air
Vo: 10		Source Output RF1 💌	1.[0848]	TV1000	Free-to-air
					Free-to-air
		- Destination			
		Destination	4 [1242]		Pree-to-air
		IP 192 . 168 . 32 . 33			Free-to-air
				OKHOTA I RYBALKA	Free-to-air
		Port 1234 ToS (HEX) 00			Free-to-air
			8 [1246]	DRIVE	Free-to-air
		Protocol RTP 💌			Free-to-air
		No stuffings			Free-to-ar
No: 12	Freq: 474.000 MHz	Start Stop	1 [0858]	M6 Boutique la chai	Free-to-air
ASI-RF1.UPC.CAS [100]			2 [12C0]	Demain!	Free-to-air
92.168.32.54			3 [12C1]	CCTV9	Free-to-air
0:8F:DB:00:2D:CF	DVB-T, FEC 3/4, QAM 64, IFFT: 2k, Delta: 1,	18, b	4 [12C2]	RTR	Free-to-air
			5 [12C3] 6 [12C4] -	Vesti Aljazeera Intl	Free-to-air Free-to-air
			7 [12C5]	TELESUD	Free-to-air
lo: 13	Freg: 490.000 MHz	OK		TELESION	Treesto all
BASI-RF2.UPC.CAS [100]		Idle			
	DVB-T, FEC 3/4, QAM 64, IFFT: 2k, Delta: 1,	/8, b			
d			1		Þ
of the second			-		

After selecting the required parameters you should click "start" and close the window. It is possible to check (monitor) work of IP inputs using VLC player.



Select Media / Network and enter the necessary parameters. An example is given on Figure below.



### Warranty

Warranty period – 24 months from the selling date

The manufacturer does not take any responsibility for defects occurred at the customer's fault or trading company's during careless transportation, improper storage, technica service or usage, mechanical damages, violating the operation rules.

The software is delivered "as is" unless mentioned otherwise. The manufacturer does not bear responsibility for any consequences of using the software. The software can be used without any limitations. Additional information on the software interfaces can be sent upor request.

The manufacturer reserves a right to bring any changes to the product, software or description without notice. Please ask manufacturer for latest information and updates.

#### Dear customers!

We make improvements and/or changes in our products and we reserve the right to make changes without notice. Though every effort has been made to ensure that this document is current and accurate, more information may have become available subsequent to the production of this guide.

Our products are under continual improvement, so we would like to draw your attention to the fact that the old-model devices may not be supported by the most recent version of our software. It is caused by using in our equipment advanced technical solutions and new electronic components.

We are pleased to receive at info@dv-lab.com comments and remarks regarding our products and software. At the same address we are ready to provide further information about the products application and updated software.