

MiniMux RTP Streaming

Demo Setup

Application note

The purpose of this document is to show you how to use the RTP MiniMux to stream a DVB multiplex from a tuner module to your PC and watch it with the VLC media player.

You need the follwing hardware / software:

- MiniMux RTP streamer
- NIM Module
- VLC media player (download for free from www.videolan.org)
- Terminal software (Hyperterm) to configure the MiniMux

You also need to know the following:

- an unused IP address for the MiniMux RTP streamer
- the IP address of your PC

Step 1: Hardware setup

- connect the NIM module to your MiniMux TS Port (TS_{in}1)
- connect the MiniMux's ethernet port (RJ45) to your network
- connect the MiniMux's serial port (10pin Header for RS232) to your PC
- connect the MiniMux to a power source



For detailed connector description see datasheet "2ch Multiplexer" on www.maintech.de

Step 2: Configuring the MiniMux

The MiniMux is configured via HyperTerminal. Start HyperTerminal, and choose a name for your new connection (e.g. MiniMux).

maintech MiniMux RTP Streaming **SR-Systems**

Choose the serial port of your computer (e.g. COM1). The properties of your port should be like these:

- Bits per second: 115200
- Data bits: 8
- Parity: none
- Stopbit: 1
- Flowcontrol: none

Your configuration mask should look similar to this:

Anachiuseindelungen	
Bits pro Sekunder 115200	
Duterbite: [1	
Patiti: Viere	
Stoppids 1	
Russianary Con	
Wedetexteler	
OK Abbrechen Deenstreen	

PSI Settings Refer & Settings rrent status: running tive inguts: 1 only 1 (24 DIB300) tuner locked 2: nout disable 1 setteral clock I Generator disabled H Link State: 100 MBit, full duplex P Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)) PSI Settings 1) Network Settings	
Network Settings I Prent status: running tive inputs: 1 only 1: (2x UDB3000) tuner locked 2: input disabled T external clock 1: external clock H tunk State: 100 HBit. full duplex P Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	1 Network Settings	
1 rrent status: running tive inputs: 1 only 1: (2x DIB3000) tuner locked 2: input disabled 1: external clock 1: external clock 1: external clock 1: external clock 1: external clock 2: output: streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	3) RTP Output Settings	
rrent status: running tive inputs: 1 only 1: [2x DIB30001 tuner locked 2: input disabled 1: external clock I Generator disabled H Link State: 100 MBit, full duplex P Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	1	
tive inputs: 1 only 1: [2x D183000] tener locked 2: input disabled 1: external clock 1: Generator disabled H Link State: 100 HBit, full duplex P Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	Current status: running	
1: [2x 0183000] tuner locked 2: inout disabled 1: external clock and the state of t	Active inputs: 1 only	
i external clashed I Generator disabled H Link State: 100 MBit, full duplex P Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	N1: [2x DIB3000] tuner locked	
I Generator disabled H Link State: 100 MBit, full duplex P Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	UT: external clock	
P Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	'SI Generator disabled TH Link State: 100 MBit Full duplow	
	TP Output: Streaming to 10.0.11.5 (00:1a:a0:c4:b1:e2)	
nimux Mainmenu	finimux Mainmenu	
show status) show status	
Port configuration	Port configuration D Jumor 1 Settings	
PSI Settings) PSI Settings	
Network Settings) Network Settings	

Configure the different settings:

- Port configuration: 0
- TS 1 Input Mode: Tuner
- TS 2 Input Mode: disabled
- Multiplex Mode: multiplex

Tuner 1 configuration:

• configure according to your signal source

PSI configuration:

• PSI generator not required => disable

Network configuration:

- IP Address: unused IP address in your network
- Subnet Mask: according to the IP address in your network (if unknown, check other devices in your network: all devices in one network have the same subnet mask)
- Gateway: 0.0.0.0 if PC and MiniMux are in the same network

RTP configuration:

- RTP Output: enabled
- SDP Announce: enabled
- Remote IP Address: IP address of your PC
- Remote UDP Port: 1234 (or other port number), remember!
- Local UDP Port: 1234
- RTP SSRC ID: 0000000







maintech MiniMux RTP Streaming **SR-Systems**

Step 3: checking the MiniMux's status

Go into Minimux Mainmenu (by pressing ,0') and choose "show status"

- Active inputs should be "1 only"
- IN 1 should read like "[2x <tuner type>] tuner locked"
- IN 2 should be "input disabled"
- PSI Generator should be disabled
- ETH Link State should read like "100 MBit, full duplex"
- The RTP Output should read like "Streaming to X.X.X.X (YY:YY:YY:YY:YY)" where X.X.X.X is the IP address of your PC and YY:YY:YY:YY:YY:YY is the MAC address of your PC



If you have different status messages, please see Troubleshooting for advice.

Step 4: opening the stream in VLC

Start VLC media player. Go into Media Menu => Open Network Stream Protocol should be "RTP"; Port should be your choosen port number (e.g. 1234). Play. Go into Playback Menu and choose "program"

🛓 VLC	media playe	r				
Medien	Wiedergabe	Audio	Video	Extras	Ansicht	Hilfe
💽 Da	tei öffnen			Ct	rl+O	- 00
📔 En	weitertes Datei-	Öffnen.		Ct	rl+Shift+(
🗀 Or	dner öffnen			Ct	rl+F	
💮 Me	dium öffnen			Ct	rl+D	-: //
👯 Ne	tzwerkstream ö	ffnen		Ct	rl+N	
🎫 Au	fnahmegerät öf	fnen		Ct	rl+C	
UF	L aus Zwischen	ablage ö	ffnen	Ct	rl+V	
Be	Benutzte Medien					•
Die	ensterkennung					•
Wi	edergabeliste in	Datei sp	peichern	Ct	rl+Y	
Ко	nvertieren/Spei	chern		Ct	rl+R	
((•)) St	eaming			Ct	rl+S	
🗙 Be	enden			Ct	rl+Q	

Troubleshooting

- Tuner status is "tuner not locked" => check tuner settings, check antenna, choose a program that is available on your site
- Tuner status is ",tuner error" => check tuner cable, check if tuner is connected at the right port
- ETH link state is "down" or "error" => check network cable, check switch
- RTP output status is "No ARP for X.X.X.X" => check IP addresses and network settings



Errata/corrections: 10.12.2009 v1.0 en

The information in this manual was compiled with high care and to our best knowledge; nevertheless there might be some errors left in this document. We do not take legal or any other responsibility for the correctness of any information.

This document is protected by copyright low. All rights, including copying, translation, microfilming as well as storage and processing in electronic systems are reserved.

We are happy to receive your comments and questions.

maintech GmbH Otto-Hahn-Straße 15 97204 Höchberg Germany Tel.: +49-(0)931-4070690 Fax: +49-(0)931-4070653 e-mail: info@maintech.de www.maintech.de