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

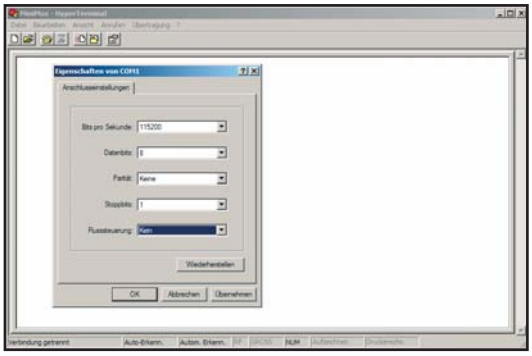
For detailed connector description see datasheet "2ch Multiplexer" on www.maintech.de

Step 2: Configuring the MiniMux

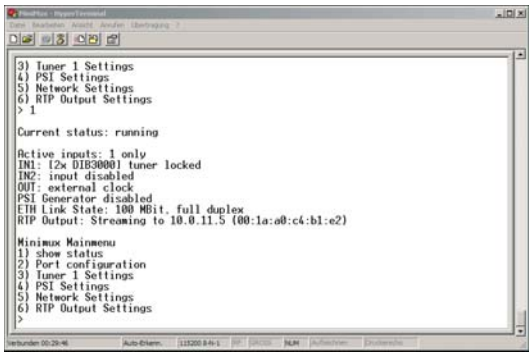
The MiniMux is configured via HyperTerminal. Start HyperTerminal, and choose a name for your new connection (e.g. MiniMux).

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

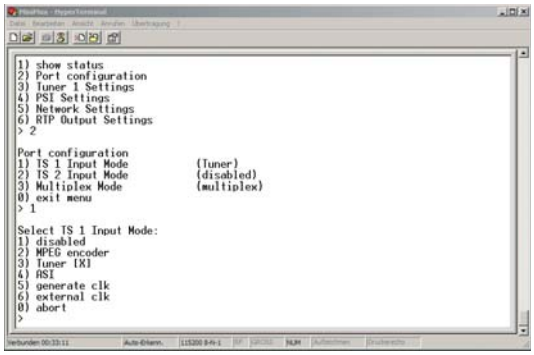


Your configuration mask should look similar to this:



Configure the different settings:

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

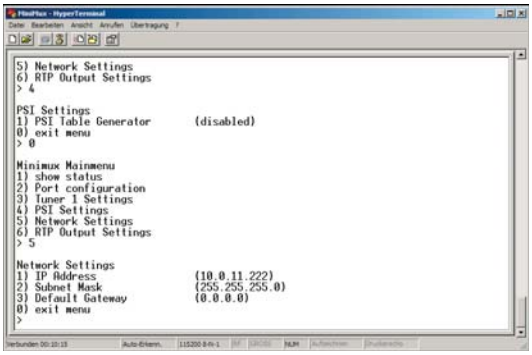


Tuner 1 configuration:

- configure according to your signal source

PSI configuration:

- PSI generator not required => disable

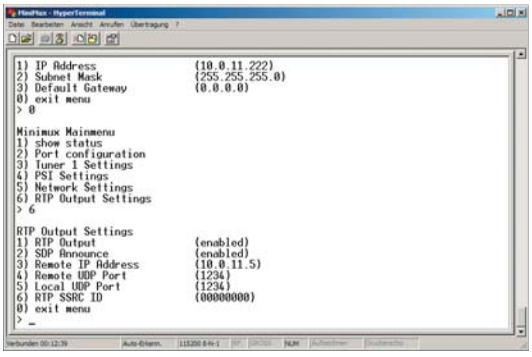


Network configuration:

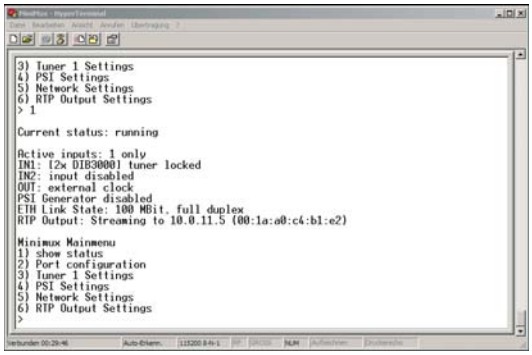
- IP Address: unused IP address in your network
- Subnet Mask: according to the IP address in your network (if unknown, check other devices in your network: all devices in one network have the same subnet mask)
- Gateway: 0.0.0.0 if PC and MiniMux are in the same network

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: 00000000



Step 3: checking the MiniMux's status

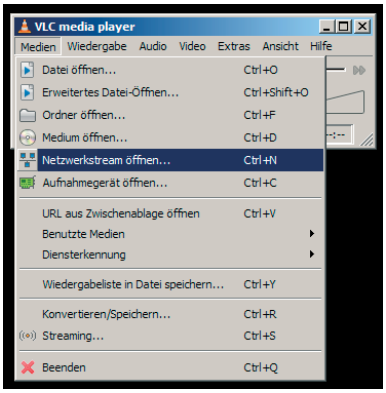


Go into Minimux Mainmenu (by pressing ‚0') and choose „show status"

- 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: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"

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

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