



Release Note

Exstreamer V8.3 I

Firmware name:	Exstreamer V8.3 I																					
Released:	22. Dec. 2009																					
Package name:	exstreamer_kit_vb830_20091216.zip																					
Version overview:	<table border="1"> <thead> <tr> <th>File name</th> <th>Version Date</th> </tr> </thead> <tbody> <tr> <td>exstreamer_digital.rom</td> <td>VB8.3 I_20091222</td> </tr> <tr> <td>exstreamer_cifs.rom</td> <td>VB8.3 I_20091222</td> </tr> <tr> <td>xt05.bin</td> <td>V00.03_20050317</td> </tr> <tr> <td>sg.bin</td> <td>V07.03_20091105</td> </tr> <tr> <td>sonicip.cob</td> <td>V01.04_20070625</td> </tr> <tr> <td>exstreamerapp.cob</td> <td>V02.14_20091110</td> </tr> <tr> <td>esnd.rom</td> <td>V00.04_20090806</td> </tr> <tr> <td>bclio.bin</td> <td>V01.11_20091217</td> </tr> <tr> <td>UNIFULL.SPB</td> <td>V99.14_20091015</td> </tr> </tbody> </table>	File name	Version Date	exstreamer_digital.rom	VB8.3 I_20091222	exstreamer_cifs.rom	VB8.3 I_20091222	xt05.bin	V00.03_20050317	sg.bin	V07.03_20091105	sonicip.cob	V01.04_20070625	exstreamerapp.cob	V02.14_20091110	esnd.rom	V00.04_20090806	bclio.bin	V01.11_20091217	UNIFULL.SPB	V99.14_20091015	
File name	Version Date																					
exstreamer_digital.rom	VB8.3 I_20091222																					
exstreamer_cifs.rom	VB8.3 I_20091222																					
xt05.bin	V00.03_20050317																					
sg.bin	V07.03_20091105																					
sonicip.cob	V01.04_20070625																					
exstreamerapp.cob	V02.14_20091110																					
esnd.rom	V00.04_20090806																					
bclio.bin	V01.11_20091217																					
UNIFULL.SPB	V99.14_20091015																					

© 2009 Barix AG, all rights reserved. All information is subject to change without notice. All mentioned trademarks belong to their respective owners and are used for reference only.

I Hardware Compatibility

This firmware is intended to run on the following devices:

- Exstreamer 100, 110, 200, 1000
- IPAM 100, 200, 300

Note: The firmware can run on any other Barix audio devices (e.g. Annunicom, Exstreamer Digital), however the functionality is not guaranteed.

2 New Features

The following new features have been implemented in the Exstreamer V8.31 (since version 8.24):

- #62.01 Level meter for home page
- #62.03 Binary discovery added
- #62.04 Use of Parameter, Priority Message Minimum Volume by Romplay.
- #62.06 New command, PLAYPLAYLIST
- #62.08 Additional RTP audio formats supported as defined in section 5.
- #67.01 Multicast. Send IGMP report after default IGMP message query timeout.
Explanation: Some network switches are capable of only IGMP snooping and can not sent IGMP query messages. Our IGMP module sends an igmp report at the beginning and on reception of an IGMP query message. So if there is no IGMP router in the network, no further report is sent and the switch assume that there is no active group after a timeout and stops forwarding IGMP traffic.
- New structure to the software kit which includes a new format for the serial upload.

3 Bugs Fixed In This Version

The following bugs have been fixed in the Exstreamer V8.31 (since version 8.24):

- Exstreamer I000 LEDs were inverted
- Minor changes to WEB UI html help files
- #12.46 RTS function (AVR) only works with RTP and HTTP
- #24.51 Sync discovery only supports about 18 partners
- #047.16/51.04 Incorrect checksum in IGMP packet
- #047.19 Ex I10 resets if DHCP responds too quickly. Other HW not affected.
- #62.02 Exstreamer I10 marked with AAC+ compatible label. Noise heard when playing mp3 files. Issue remains when starting to play streams but this is not so disturbing (see Known Bugs below).
- #62.10 Exstreamer I000 no cgi-, tcp- or udp-commands possible,
- #62.11 RTP header extension is not recognised
- #62.13 Wrong Song date format in WEB UI.
- #62.14 SonicIP last digit is clipped,
- #62.15 C=x=l does not turn on Syslog watch
- #62.16 c=60/c=61 not working
- #62.18 In Mode 4 only the first incoming stream is played
- #62.19 restart after "Pause" does not work properly
- #62.23 "Balance" in the setup works on wrong channel
- #62.26 RTS does not change in Activate AVR mode
- #62.28 Noise on RTP on stop/start. Noise on start eliminated, stop still present.

- #62.30 RTP Mode 4 receiver. Start does not work (after stop)
- #62.32 TCP stopped after awhile requiring a reboot to recover. This was as a result of a valid change (#66.04) in the TCP stack which was not handled correctly by the Instreamer. The Exstreamer has been modified to prevent the behaviour. The full explanation is quite technical. Further information can be provided by Barix if required.
- #66.01 ICMP answers do NOT use ARP resolution
- #66.04 TCP reassembly is inefficient. Note: #62.32
- #66.07 WEB server sometimes rejects the connection
- #66.08 TCP. Receiver window $\leq 10B$ ignored by sender.
- #66.09 TCP. TCP Window shrink of the receiver causes arithmetic overflow on the sender.
- #67.05 Bootloader monitor W/w command not recognized. Note: The new Bootloader is loaded only if the serial rescue is used.
- #67.07 Binary Discovery should not use arp resolve
- #76.01 Incorrect file search in flash. e.g. file "hello world" confused with file "hello".

4 Known Bugs

- #12.47 & #62.02 Exstreamer I10 marked with AAC+ compatible label. Some Noise heard when a stream starts. This problem was eliminated for playing mp3 files.
- #024.54 TCP receive port.. If "tcp streaming port" set to 0, RTP streaming stops.
- #062.28 Noise on RTP on stop/start. Noise on start eliminated, stop still present.
- #062.29 c=17 fast forward doesn't work, sounds slower.
- #062.33 Priority Message Minimum Volume doesn't work with TCP Priority Streaming where the interrupted stream is from a Zserver, Web server or another TCP stream.
- #062.37 WEB Cob creation for Linux & MAC - the required bpkg program is missing. This can be obtained on request from Barix support for Linux and MAC OS 10.5.
- #062.38 Vu meter only shows 8 different values.
- #062.39 Volume gain display incorrect. (-6dB is louder than -0db).
- #67.08 Binary Discovery responds to port 30718 (instead of source port).
- WEB error 503 sometimes seen. This is usually due to a lack of buffer resources in the device so may be unavoidable. Work around is to refresh the WEB page.

5 Major Modifications

5.1 Update Kit

The batch names `ipamres*` and `rescue` have been changed to `serial*` and `legacy*`.

The `_readme.lst` file has been changed so that the first part contains version information specific to the Exstreamer. The rest of the file contains general serial and WEB update instructions.

The linux and mac folders are now combined and the same serial update commands used for both. But please note that the `load_mac` binary included only works under MAC OS 10.5. For other OS the binary can be created from the source provided in the package.

WEB Cob creation for Linux & MAC is not supported in the package but the required program `bpkg` can be obtained on request from Barix support for Linux and MAC OS 10.5.

5.2 Audio formats

The following uncompressed audio formats are now fully supported in RTP streams. The number refers to the payload type held in the RTP header :

Standard RTP Formats

RTP Payload type MPEG I/II audio	14
Mu law 8kHz	0
A law 8kHz	8
PCM 16bit, MSB first, signed, 44.1kHz stereo	10

Dynamic payload types defined by Barix

PCM 16bit, BE, mono, 8kHz	96
uLaw 8bit, mono, 24kHz	97
ALaw 8bit, mono, 24kHz	98
PCM 16bit, BE, mono, 24kHz	99
PCM 16bit, BE, stereo, 48kHz	103

For successful operation of the PCM formats please adjust the RTP Threshold for at least 100msecs:

PCM 24kHz mono,	4,800 bytes
PCM 44.1kHz stereo,	17,640 bytes
PCM 48kHz stereo,	19200 bytes

6 References

	Document
[1]	Exstreamer Technical Documentation <u>V8.31</u>

7 Legal Information

© 2009 Barix AG, Zurich, Switzerland.

All rights reserved.

All information is subject to change without notice.

All mentioned trademarks belong to their respective owners and are used for reference only.

Barix and Exstreamer are trademarks of Barix AG, Switzerland and are registered in certain countries.

For information about our devices and the latest version of this manual please visit www.barix.com.

Barix AG
Seefeldstrasse 303
8008 Zurich
SWITZERLAND

T +41 43 433 22 11
F +41 44 274 28 49

www.barix.com
sales@barix.com
support@barix.com