

MPX-2ds/2d

Release Candidates

Notes

Version 1.02-rc16

24.03.2025



MPX-2ds/2d Release Candidates Notes

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MPX-2ds/2d Release Candidates Notes

Version 1.02-rc16

24.03.2025

Fixed Issues

- SAT tuner without function

Version 1.02-rc15 (retracted for 2ds)

21.03.2025

Fixed Issues

- Stereo decoder: Deemphasis setting is not correct after a device restart
- μ MPX: After a restart no μ MPX level in the backup stream (partially prevents backup switching)
- Changing the gain of a file input source is not applied to all instances

Known Issues

- SAT tuner without function (only MPX-2ds)

Version 1.02-rc14

25.02.2025

Changed functionality

- In case of limited screen width, the new hamburger menu is now more prominent. Additionally, the collapsed menu can be pinned to stay on the screen even in case of limited screen width.
- The PER (packet error/loss rate) for RTP inputs was formerly measured in an interval of 1/10 of the T1 time of the packet loss switch criteria time (where the default is 60s resulting in a default measurement interval of 6s). The measurement does now adapt to the type of incoming stream and its number of packets per second to allow for a resolution of the PER of 0.1% (meaning 1 of 1000 packets). To be able to measure that at least 1000 packets need to be the measurement interval which might result in the PER not updating very frequently.

Fixed Issues

- The silence mode available for elementary stream input sources was not working immediately after enabling it and after a reboot
- Prevent duplicate VLAN IDs on same interface
- RTCP sender report may get broken after some time (breaking automatic codec detection and transport of the global delay information in case of synchronous playout / SFN)
- Enhanced compatibility to some WAV files
- Decoder stops working with ancillary data decoding enabled after ancillary data is sent (if DTE output is configured; since 1.02-rc11)
- PTP for unicast configuration improved



MPX-2ds/2d Release Candidates Notes

Version 1.02-rc12

14.02.2025

New Functionality

- Added new buttons to the Overview page to reset the counters of all decoders or encoders
- Extended log now tracks NTP reference server changes
- μMPX: Switch criteria “Packet loss (PER)” can now also be evaluated for UDP

Changed functionality

- The menu of the web interface does now collapse to a hamburger menu in case screen width is limited
- Show Dual Streaming block on Overview even if FEC is enabled
- μMPX: If the stream is not actively decoded, all available information about the stream is still displayed

| Buffer | |
|--------|---|
| 0 | 0 |
| 200 | 0 |

-3.7 dBFS

| IP | | | | | |
|-------------|--------------|-----|-----------|----------|--------|
| Src address | 192.168.99.2 | | | | |
| Src port | 56682 | | | | |
| Bitrate | 908k | | | | |
| Packets/s | 104 | | | | |
| Jitter | -- | | | | |
| Missed | PER | MDI | Timed out | Max size | Buffer |
| -- | -- | -- | 0 | 1159 | -- |

| μMPX Standby | |
|--------------|-------------|
| Buffer | Signal lost |
| -- | -- |
| Missed | PER |
| 0 | 0.0 % |

Fixed Issues

- Buffer level alarm not working when uMPX is being decoded
- Alarm for “AES/EBU no signal” not working
- uMPX: Streams with very small data packets (less than 200bytes) not working
- RTP input source: when the input stream changes (e. g. due to an encoder restart), RTP reception might not resume, showing an input bitrate of 0, even if the new stream is received by the device
- Bunch of internal improvements and optimizations
- Security enhancements
- FLAC codec did not work in combination with SRT
- SRT in caller mode doesn't always connect reliable with the SRT listener
- Not currently active TS/Demux backup sources may show wrong ancillary data on Overview page in case a private PID is used as ancillary source
- When changing the ancillary data configuration the ancillary output doesn't work afterwards or the device may even crash
- xHE-AAC encoder: added parameters to control live loudness and DRC
- UDP ancillary input improved (might not work after reboot when DHCP is enabled)
- When changing a TS/Demux source and switching to the Overview page the device could crash with certain transponders
- Enhanced stability
- Check minimum SRT passphrase length
- “Jumping” level meters after decoder backup switching on Overview page
- Loading settings might not activate all input source settings



MPX-2ds/2d Release Candidates Notes

Version 1.02-rc11 (First version for MPX-2d)

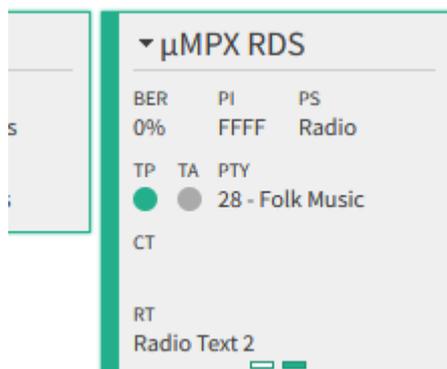
18.12.2024

Fixed Issues

- Live Listening: Switching sources / clicking on speakers does not work reliably
- Deleting a VLAN entry is only possible if other settings are also changed
- MPX decoder: fluctuation of the pilot frequency (greater than +-2Hz)
- TS/SRT decoding not possible
- Stereo decoder: Low stereo separation after a short 19kHz sync lost
- uMPX: Rare problem where the decoder could lose packets even though they were received

New / Changed Functionality

- μ MPX: If more than one μ MPX decoder is activated in a decoding chain, the MPX level is now also displayed for the inactive decoder. The prerequisite is that input data is available and the source (μ MPX encoder) supports this function.
- μ MPX RDS decoding if RDS signal is available



- RDS databridge is now also available for μ MPX codec
- μ MPX - Switch criteria: A triggered "No Input Data" criterion now leads to the "Silence detection" monitoring being suspended.
- μ MPX: If μ MPX generates a dropout message, these now counted on the overview page
- Status values of dual streaming with FEC are now displayed on the overview page

Version 1.02-rc10

12.11.2024

Fixed Issues

- Fixed possible crash on startup



MPX-2ds/2d Release Candidates Notes

Version 1.02-rc9

08.11.2024

New Functionality

- GPO: Add “Remote command” to GPO switch source select
- Scheduler: Enables the execution of various actions at defined times. Currently activating/deactivating a decoder source
- Last settings change: The time can be read out as a UNIX timestamp or date
This is also displayed on the Global page:

Settings Download Last settings change: 30.10.2024 06:03:32 (UTC)

Generate settings file:

- Input source “File” can be played only once if desired



- Started to add the possibility to get a counter history on the Overview page via a small icon next to the label. It's more or less a shortcut to the extended log, showing you only the entries for the counter of this input source. Currently it's added to the “Missed” and “Timed out” counter, others should follow.

| IP | | | | | |
|-------------|----------|-----------|-----------|----------|--------|
| Src address | Src port | Bitrate | Packets/s | Jitter | |
| | 0 | 0 | 0 | 0.0 ms | |
| Missed | PER | MDI | Timed out | Max size | Buffer |
| 0 | 0.0 % | 0.0:0.000 | 0 | 0 | 0 ms |

- The LCD screen will now show additionally a SAT status page with reception information:

| SAT STATUS | | | | | |
|---|---------|-------|---------|-----|---------|
| RF1 - DVB-S2 BPSK 22000 2/3, 1303.000 H | | | | | |
| RF STATE | Locked | C/N | 17.5 dB | BER | 0 |
| RF LEVEL | -38 dBm | EB/NO | 10.2 dB | FE | 274 kHz |
| RF2 - DVB-S QPSK 22000 Auto, 1788.000 U | | | | | |
| RF STATE | Tuning | C/N | 0.0 dB | BER | -- |
| RF LEVEL | -99 dBm | EB/NO | -- | FE | -- |

Improvements

- Decoder Main / Backup switching improved
- Ext. log can now be deleted via a button

Fixed Issues

- μMPX ancillary data decoding may drop some bytes
- Automatic codec detection for TS/Demux input sources may not signal correct AAC type
- Fixed possible application crash when loading settings or loading factory settings
- Fixed a problem on the Codec page, sometimes not allowing to switch between the “General” and the “Switch Criteria” tabs in the input source configuration dialogs



MPX-2ds/2d Release Candidates Notes

- Optional SAT tuner: Switch criteria C/N does not work
- Icecast client: https Icecast streams with credentials may have problems with authentication
- (Limited) support for Internet Explorer 11 was broken

Version 1.02-rc8

20.09.2024

Improvements

- General playout stability improvements

Fixed Issues

- Clearing the extended log did not work (the latest entries reappeared after a few seconds)
- In case of audio errors, the corresponding event log entry may show the wrong reason for the error
- An audio error may occur when an external clock switch happens
- Second stream in DualStreaming setup may show missed packets, although they weren't missed

Version 1.02-rc6

13.09.2024

Improvements

- Incorrect configuration of the decoder output type leads to audio errors (example: Audio Mode + μ MPX)
- More detailed log entries for possible audio errors

New Functionality

- New silence mode for elementary stream inputs: when enabled, empty packets will be inserted in case of missing stream input (like the "Generate Null samples" option for AES/EBU inputs, when no input is connected)
- Added the possibility to clear the extended log

Fixed Issues

- A change of the PCM multichannel offset of an elementary stream input was not taken into account (only after disabling/enabling the input source or rebooting the device)



MPX-2ds/2d Release Candidates Notes

Version 1.02-rc5

23.08.2024

Fixed Issues

- Finally fixed the root cause for FPGA underruns and “Restart Audio Buffer” errors

Version 1.02-rc4

20.08.2024

Fixed Issues

- Fixed the root cause for FPGA underruns and “Restart Audio Buffer” errors (in fact not totally – the probability was just reduced significantly)

Version 1.02-rc3

13.08.2024

Fixed Issues

- Fixed PCM clock synchronization (not getting a synchronization lock)
- Increased resilience of PCM decoding (hopefully avoiding often “Restart Audio Buffer” errors)

Version 1.02-rc2

07.08.2024

Fixed Issues

- Eliminated some more circumstances for FPGA underruns (reported in event log)

Version 1.02-rc1

02.08.2024

New Functionality

- Added optional TSL/SSL encryption for Live Listening (to support access via https)
- Added uptime values for RTP/SRT input streams as separate values readable via external APIs

Changed functionality

- Consolidated TCP/IP page to only have one “Save” button
- The event log page does now also refresh automatically when it is initially empty



MPX-2ds/2d Release Candidates Notes

Fixed Issues

- Fixed audio errors due to FPGA underruns (reported in event log) after a switch between main <-> backup sources has been done
- Enhanced compatibility to μ MPX with FEC from StereoTool and Omnia9
- Fixed audio errors in PCM 192 kHz mode in case of missed packets
- Fixed a crash in μ MPX decoding when SFN/SPN mode is used
- ProMPEG FEC decoder let main input stream fail, if one FEC port offset is set to 0
- Fix μ MPX Dualstreaming
- Dedicated status values for TS/SRT did not work at all
- Fix μ MPX decoding from TS in case of PES encapsulation (instead of MPE)