

## FlexLine Firmware Changelog

Version <b>2.2.171</b> since vers. <b>2.2.170</b>	Date: 07.02.2023 Engineer: Martin Comina
<ul style="list-style-type: none"> <li>Bugfix for wrong behaviour when display is turned off</li> </ul>	
Version <b>2.2.170</b> since vers. <b>2.2.160</b>	Date: 20.12.2022 Engineer: Martin Comina
<ul style="list-style-type: none"> <li>Bugfix for stable local out</li> <li>UDP destination port numbers are hardcoded in VHDL</li> <li>Implemented option to use serial interface for external buttons</li> </ul>	
Version <b>2.2.160</b> since vers. <b>2.2.150</b>	Date: 05.12.2022 Engineer: Martin Comina
<ul style="list-style-type: none"> <li>Correctly set LVDS specific pins on remote but not on local (otherwise VGA issues)</li> </ul>	
Version <b>2.2.150</b> since vers. <b>2.2.140</b>	Date: 09.11.2022 Engineer: Martin Comina
<ul style="list-style-type: none"> <li>Correctly check video and USB address of connected remotes in backbridging</li> </ul>	
Version <b>2.2.140</b> since vers. <b>2.2.130</b>	Date: 07.11.2022 Engineer: Lev Maleev
<ul style="list-style-type: none"> <li>Eliminated fibre link failures upon powerup</li> </ul>	
Version <b>2.2.130</b> since vers. <b>2.2.120</b>	Date: 21.10.2022 Engineer: Martin Comina
<ul style="list-style-type: none"> <li>Broadband reduction setting does not get reset after rebooting</li> </ul>	
Version <b>2.2.120</b> since vers. <b>2.2.110</b>	Date: 18.10.2022 Engineer: Martin Comina
<ul style="list-style-type: none"> <li>EasyLine swaps backbridge correctly if primary link goes down</li> <li>Check if EasyLine bridge has partner: corrected for both links</li> </ul>	
Version <b>2.2.110</b> since vers. <b>2.2.100</b>	Date: 11.10.2022 Engineer: Lev Maleev
<ul style="list-style-type: none"> <li>Bugfix for local video output</li> <li>USB: Support for Steffensen multimedia keyboard</li> </ul>	
Version <b>2.2.100</b> since vers. <b>2.2.80</b>	Date: 23.09.2022 Engineer: Martin Comina
<ul style="list-style-type: none"> <li>Implemented scenarios list in switching list menu</li> <li>Implemented favourite scenarios with shortcuts</li> <li>Video timer for debugging gets reset correctly</li> <li>Reworked communication between remotes in MGS (inform request instead of setting)</li> <li>Share shortcuts for favourites and scenarios in MGS</li> <li>Implemented check for SFP validity</li> </ul>	

Version **2.2.80**

Date: 13.09.2022

since vers. **2.2.70**

Engineer: Martin Comina

- USB on local: sending release keys event upon USB partner change
- USB fix for Focusrite Scarlett 2i2 device
- Removed ORF specific version

Version **2.2.70**

Date: 08.09.2022

since vers. **2.2.60**

Engineer: Dietmar Pfurtscheller

- Fix for stable local out (inverted vclk) and fix for GECMA Flin24 and FLIN26 showing Flin14 and FLIN16

Version: **2.2.60**

Date: 08.09.2022

since vers. **2.2.50**

Engineer: Martin Comina

- Correctly initialize video cloning after rebooting

Version: **2.2.50**

Date: 05.09.2022

since vers. **2.2.40**

Engineer: Martin Comina

- Runtime in diagnosis menu visible for fibre devices
- Austin Hughes touchpad uses correct mouse interface in emulation mode
- Adjusted IGMP leave-report according to protocol

Version: **2.2.40**

Date: 28.07.2022

since vers. **2.2.20**

Engineer: Manuel Eitzenberger

- Runtime of Local Units now visible in OSD
- Local ID now displayed correctly
- Video cloning now saved in general settings

Version: **2.2.20**

Date: 08.07.2022

since vers. **2.2.0**

Engineer: Manuel Eitzenberger

- Backbridge mode can now be disabled in the OSD

Version: **2.2.10**

Date: 28.06.2022

since vers. **2.2.0**

Engineer: Martin Comina

- Austin Hughes touchpad works
- Send USB status in status message to display in SWM frontend
- LVDS remote is stable

Version: **2.2.0**

Date: 24.06.2022

since vers. **2.1.130**

Engineer: Martin Comina

- Changed MAC address to valid IHSE MAC address
- Correctly swap USB, analogue audio, and RS232 on dual devices
- Local out stays on after disconnecting from remote
- IHSE keyboard works
- Freeze last image does not show broken image after restart
- Reset devices from hub correctly if hub gets disconnected

Version: **2.1.130**

Date: 15.06.2022

since vers. **2.1.120**

Engineer: Dietmar Pfurtscheller

- Fix for stability on local out on HW version 1.1: Slew rate on IT6801 reduced and change clock delay

Version: **2.1.120**

Date: 13.06.2022

since vers. **2.1.112**

Engineer: Martin Comina

- Send current video state in settings status
- Bugfix: USB communication from KVM-TEC remote to IHSE local
- Check of SFP RX power to recognize link failure

Version: **2.1.112**

Date: 07.06.2022

since vers. **2.1.111**

Engineer: Martin Comina

- Added a 15 seconds timer for initializing video on raspberry in Gateway

Version: **2.1.111**

Date: 07.06.2022

since vers. **2.1.110**

Engineer: Martin Comina

- Gateway raspberry sends video correctly

Version: **2.1.110**

Date: 02.06.2022

since vers. **2.1.100**

Engineer: Martin Comina

- Display correct LED status of link
- Correctly set ID on remote
- Gateway shows video correctly after reboot

Version: **2.1.100**

Date: 23.05.2022

since vers. **2.1.90**

Engineer: Martin Comina

- Fixed private connection via switching list

Version: **2.1.90**

Date: 19.05.2022

since vers. **2.1.80**

Engineer: Martin Comina

- Pre cache IP and MAC only if packet has correct IP header
- If router address is set but no MAC address -> send ARP request

Version: **2.1.80**

Date: 18.05.2022

since vers. **2.1.70**

Engineer: Lev Maleev

- Changed TX arbiter for better USB stability
- USB on remote: no SOF sync in low speed

Version: **2.1.70**

Date: 13.05.2022

since vers. **2.1.60**

Engineer: Martin Comina

- Check ARP entries every 60 seconds for their validity
- If DHCP only mode and no received switching manager address -> send discover again

Version: **2.1.60**

Date: 10.05.2022

since vers. **2.1.50**

Engineer: Martin Comina

- Correctly check ARP entries for possible duplicate MAC address

Version: **2.1.50**

Date: 02.05.2022

since vers. **2.1.40**

Engineer: Martin Comina

- Fixed wrong order in "Power Save Mode" menu
- Fixed wrong length of login name and password
- Added support of special characters
- Update partner name in OSD correctly

- Improved USB behaviour if device is unknown/unsupported
- Added DHCP only setting
- Correctly disable second channel Lantiq on SmartFlex single

Version: <b>2.1.40</b>	Date:	22.04.2022
since vers. <b>2.1.30</b>	Engineer:	Dietmar Pfurtscheller

- Bugfix for G&D USB communication

Version: <b>2.1.30</b>	Date:	21.04.2022
since vers. <b>2.1.20</b>	Engineer:	Martin Comina

- Correctly reset switching manager on remote unit if no status has been received for 20 seconds

Version: <b>2.1.20</b>	Date:	30.03.2022
since vers. <b>2.1.10</b>	Engineer:	Martin Comina

- Clear block polling if only one monitor is connected to remote in frontbridge
- Clear old partner name in OSD bar
- Rename devices in Easy Manager
- Send status of USB flex as connected if USB channel is enabled

Version: <b>2.1.10</b>	Date:	25.03.2022
since vers. <b>2.1.0</b>	Engineer:	Martin Comina

- Correctly park mouse in MGS
- Only check both links if device is redundant
- Correctly integrate all channels in enum
- Correctly disable EasyManager if switching to PTP
- Clear block polling when hitting edge in frontbridge

Version: <b>2.1.0</b>	Date:	11.03.2022
since vers. <b>2.0.20</b>	Engineer:	Martin Comina

- 24 MHz clock output on FPGA and Synthesizer has no 24 MHz

Version: <b>2.0.20</b>	Date:	11.03.2022
since vers. <b>2.0.10</b>	Engineer:	Martin Comina

- Updated every EDID even if single device (to prevent possible endless loop)
- Unlock features only on remote

Version: <b>2.0.10</b>	Date:	10.03.2022
since vers. <b>2.0.0</b>	Engineer:	Martin Comina

- Send EDID mode in settings status
- Get monitor name correctly
- Set key suppress on USB master of MGS if OSD is open
- Save GS correctly

Version: <b>2.0.0</b>	Date:	25.02.2022
since vers. <b>1.6.80</b>	Engineer:	Martin Comina

- FROM HERE ONLY COMPATIBLE WITH SWM 3.1.0.0 UPWARDS
- Changed status message format according to communication protocol 1.26

Version: <b>1.7.12</b>	Date:	07.03.2022
since vers. <b>1.7.11</b>	Engineer:	Martin Comina

- Integrated changes from versions 1.6.70 and 1.6.80

Version: **1.7.11**  
since vers. **1.7.10**

Date: 03.03.2022  
Engineer: Martin Comina

- If updating don't search for EasyLine Manager if timeout happens

Version: **1.7.10**  
since vers. **1.7.0**

Date: 03.02.2022  
Engineer: Martin Comina

- Integrated changes from version 1.6.60
- Improved bridging behaviour
- EasyLine send discovers only when bridging is off, and extender is not in PTP mode
- Increased timer while updating
- When leaving update window in OSD enable USB again

Version: **1.7.0**  
since vers. **1.6.50**

Date: 26.01.2022  
Engineer: Martin Comina

- Integrated EasyLine Code

Version: **1.6.80**  
since vers. **1.6.70**

Date: 25.02.2022  
Engineer: Martin Comina

- Implemented SWM health status
- Implemented SWM licensing
- Correctly update the saved firmware version
- Improved the video timings check
- Added settings status
- Fixed process of setting the serial number

Version: **1.6.70**  
since vers. **1.6.60**

Date: 07.02.2022  
Engineer: Martin Comina

- Set LEDs on keyboard correctly for every remote in MGS
- Integrated block polling for USB stick communication again
- Increased timer when updating with USB stick
- When leaving update window enabling USB again

Version: **1.6.60**  
since vers. **1.6.50**

Date: 01.02.2022  
Engineer: Martin Comina

- Fixed the USB update feature
- While checking the status of the main hub don't block polling (keybounce fix)
- Bugfix: if keyboard is pulled out before trying to access LEDs resulted in an endless loop
- Removed block polling
- USB low speed keyboard and mouse data from remote will not be forwarded to CPU
- If primary link fails disconnect PTP to reset partner address and state

Version: **1.6.50**  
since vers. **1.6.49**

Date: 25.01.2022  
Engineer: Martin Comina

- Fixed runtime of cable test in diagnosis menu
- Set the LEDs on keyboard (num lock etc.) correctly

Version: **1.6.49**  
since vers. **1.6.48**

Date: 25.01.2022  
Engineer: Martin Comina

- Added offset when displaying an itemlist in OSD that does not start at the top
- Added FIX EDID for resolution 1600x1200 and 1720x1440

Version: **1.6.48**  
since vers. **1.6.47**

Date: 21.01.2022  
Engineer: Martin Comina

- Fixed the polling process in debug runtime menu
- Clear OSD after entering status menu
- Show partner extender in PTP mode
- Display partner with orange bar in switching list
- Display the VGA parameter menu only if the connected local supports it
- Reboot if TX link is hanging
- Clear all channels after both links went down

Version: **1.6.47**  
since vers. **1.6.46**

Date: 18.01.2022  
Engineer: Martin Comina

- Integrated changes of version 1.6.45
- Added recovery from illegal state in TX arbiter

Version: **1.6.46**  
since vers. **1.6.44**

Date: 17.01.2022  
Engineer: Martin Comina

- Improved SFP diagnostic
- Reworked debug link menu to show every address of remote as well as of connected local
- Reset CPU TX link correctly if hanging
- Multicast task runs in PTP mode
- Added Lantiq debug information
- Improved reset of Lantiq by adding a 2ms timer

Version: **1.6.45**  
since vers. **1.6.44**

Date: 14.01.2022  
Engineer: Lev Maleev

- USB: added support for cascading and Motorola microphone and speakers

Version: **1.6.44**  
since vers. **1.6.43**

Date: 11.01.2022  
Engineer: Martin Comina

- Display user status only if logged in
- Fixed wrong reset of Lantiq

Version: **1.6.43**  
since vers. **1.6.42**

Date: 11.01.2022  
Engineer: Martin Comina

- Orphaned Keyboard and mouse fix implemented
- Added RTS setting for OSD status, request OSD status of remote in MGS
- Added mouse suppression after 5 seconds of inactivity
- Show the correct cursor position in OSD if hotkey is pressed
- Added additional diagnostic statistics
- Restart Autonegotiation if fibre link is lost

Version: **1.6.42**  
since vers. **1.6.41**

Date: 14.12.2021  
Engineer: Martin Comina

- Improved check for duplicate IP address in ARP cache
- Bugfix for packet ID 0 messages while updating
- Serdes PCS reset implemented

Version: <b>1.6.41</b>	Date:	03.12.2021
since vers. <b>1.6.39</b>	Engineer:	Dietmar Pfurtscheller

- Filtered unwanted USB traffic from other local units in the group in VHDL and C
- Reverted URI.c

Version: <b>1.6.39</b>	Date:	01.12.2021
since vers. <b>1.6.38</b>	Engineer:	Dietmar Pfurtscheller

- up to 5 external USB hubs are supported

Version: <b>1.6.38</b>	Date:	01.12.2021
since vers. <b>1.6.37</b>	Engineer:	Martin Comina

- Reverted the changes from versions 1.6.35 - 1.6.37
- Reimplemented keyboard error detection with following uri\_reset
- reworked and Adjusted Link Error mechanism repair

Version: <b>1.6.37</b>	Date:	30.11.2021
since vers. <b>1.6.36</b>	Engineer:	Martin Comina

- Revert to previous Portexpander because of lost LEDs

Version: <b>1.6.36</b>	Date:	30.11.2021
since vers. <b>1.6.35</b>	Engineer:	Martin Comina

- uri.c URI\_s\_CHECK\_STATUS again if no response from HUB to be verified with Medigenic Kbd

Version: <b>1.6.35</b>	Date:	30.11.2021
since vers. <b>1.6.34</b>	Engineer:	Martin Comina

- USB low speed mode: recovery/re-init of keyboard and mouse in case of failures
- I2C I/O expander: reduced bus clock to 100kHz
- enlarged video line buffer

Version: <b>1.6.34</b>	Date:	25.11.2021
since vers. <b>1.6.33</b>	Engineer:	Martin Comina

- If device gets lost/disconnects -> initialize specific port again

Version: <b>1.6.33</b>	Date:	25.11.2021
since vers. <b>1.6.23</b>	Engineer:	Martin Comina

- Reverted the USB changes from version 1.6.22
- Delete entry from ARP cache if we get a new IP address
- Fixed error in uri.c
- Added debug message in addump
- Don't close OSD when entering monitor in MGS
- Adjusted switching list menu
- Fixed false Partner in OSD

Version: <b>1.6.23</b>	Date:	19.11.2021
since vers. <b>1.6.22</b>	Engineer:	Martin Comina

- Bugfix: Version 1.6.22 was working incorrectly because of licensing issues

Version: **1.6.22**  
since vers. **1.6.21**

Date: 16.11.2021  
Engineer: Martin Comina

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- Bugfix: Detect USB keyboard error and reset on error as well as disconnect of keyboard/mouse

Version: **1.6.21**  
since vers. **1.6.20**

Date: 08.11.2021  
Engineer: Martin Comina

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- Bugfix: Extenders did not answer every setting -> changed settings according to documentation

Version: **1.6.20**  
since vers. **1.6.15**

Date: 04.11.2021  
Engineer: Dietmar Pfurtscheller

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- Feature: Tastenprellen filter implemented again in C code

Version: **1.6.15**  
since vers. **1.6.5**

Date: 20.10.2021  
Engineer: Michael Fuchs

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- Feature: IP-Routing implemented