

## XIP-3901-UC

### Release History

Release Version	Comprising:		Release Date	User Manual for this Release (Grass Valley Document #)
	Firmware Version	Software Version		
<a href="#">2.0.0</a>	2.0.0.392	2.0.0	2020-01-13	13-03065-010 Rev. AF
<a href="#">1.2.0</a>	1.2.0.327	1.2.0	2019-02-15	13-03065-010 Rev. AD
<a href="#">1.1.0</a>	1.1.0.313	1.1.0	2018-10-12	13-03065-010 Rev. AB
<a href="#">1.0.0</a>	1.0.0.232	1.0.0	2018-05-25	13-03065-010 Rev. AA

### WARNINGS

<a href="#">XIP3901UC-1352</a>	<p><b>Upgrade/Downgrade between 2.x.x and 1.x.x</b></p> <p>Each version has its settings. Consequently upgrading or downgrading between 2.x.x and 1.x.x might require ETH3 reconfiguration</p>
<a href="#">XIP3901UC-1010</a>	<p><b>Downgrade from XIP-3901-UC 1.1 to XIP-3901-UC 1.0 is impossible</b></p> <p>The moment the selected application supports the agile processing platform (XIP-3901-UC 1.1.0, XIP-3901-DC 1.0.0 ...), it is impossible to go back to XIP-3901-UC 1.0.0.</p>
<a href="#">XIP3901UC-1061</a>	<p><b>Output Timing lost on upgrade from XIP-3901-UC 1.0 to XIP-3901-UC 1.1 and up</b></p> <p>Output Timing settings will be lost after the upgrade. Follow these instructions before upgrading to XIP-3901-UC 1.1 and up:</p> <ol style="list-style-type: none"> <li>1. Take note of current output timing settings ("3G Vertical" and "3G Horizontal" sliders)</li> <li>2. Upgrade to XIP-3901-UC 1.1 and up</li> <li>3. Re-configure output timing settings manually</li> </ol>

<a href="#">XIP3901UC-1062</a>	<p><b>XIP-3901-UC 1.0 Presets, Profiles and Restore Point are not compatible with XIP-3901-UC 1.1</b></p> <p>Presets, Profiles and Restore Point saved with XIP-3901-UC 1.0 are not compatible with XIP-3901-UC 1.1 and up. Follow these instructions before upgrading to XIP-3901-UC 1.1 and up:</p> <ol style="list-style-type: none"> <li>1. Take note of current output timing settings ("3G Vertical" and "3G Horizontal" sliders)</li> <li>2. Upgrade to XIP-3901-UC 1.1 and up</li> <li>3. Re-configure output timing settings manually</li> <li>4. Re-save Presets, Profiles and Restore Point with the new XIP-3901-UC version</li> </ol>
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**NOTES:** The iControl compatibilities shown below are officially supported by Grass Valley. Earlier versions may also work, with bugs or limited features.

The reference number (Ref #) given for each feature or bug in these release notes refers to internal Grass Valley documentation.

## UPGRADE PACKAGE: 2.0.0

**Firmware version:** [2.0.0 \(CPU 2.0.0.392, FPGA 2.0.0.16\)](#)

**Release date:** [2020-01-13](#)

**iControl compatibility:** [7.51+](#)

**iControl Solo compatibility:** [7.51+](#)

**RCP-200 compatibility:** [N/A](#)

**Hardware compatibility:** [This upgrade package applies to all existing hardware assemblies.](#)

**Release type:** [Official release](#)

## ENHANCEMENTS & NEW FEATURES

Ref #	Description
<a href="#">XIP3901UC-1132</a>	<p><b>Additional HDR processing</b></p> <p>Here are the new features :</p> <ol style="list-style-type: none"> <li>1. Support of BBC LUTs</li> <li>2. Support of Custom LUTs</li> </ol>

	<p>3. Possibility to force a new VPID These new feature required XIP-3901-UDC-HDR option</p>
<a href="#">XIP3901UC-1153</a>	<p><b>Additional Video Test Pattern</b></p> <p>Possibility to enable HLG and PQ Test pattern on 3G, 12G and Quad Link 3G SDI outputs</p>
<a href="#">XIP3901UC-1345</a>	<p><b>Additional Network features</b></p> <p>Here are the new features:</p> <ol style="list-style-type: none"> <li>1. Support new bridged interface through the frame controller's Ethernet ports. This must not contain any of the frame controller's IP addresses</li> <li>2. Support DHCP</li> <li>3. Support LLDP</li> </ol>
<a href="#">XIP3901UC-1338</a>	<p><b>Additional settings and statuses on the local menu</b></p> <p>Here are the new features:</p> <ol style="list-style-type: none"> <li>1. Possibility to set ETH3 and FRM interface through local menu</li> <li>2. Possibility to display ETH3 and FRM interface statuses</li> </ol>
<a href="#">XIP3901UC-613</a>	<p><b>Improvement in video quality when up-converting to UHD-4K.</b></p> <p>Improved video quality when up-converting to UHD-4K with slightly sharper images.</p>

## BUG FIXES

Ref #	Description
<a href="#">XIP3901UC-1199</a>	<p><b>Improvement in video quality when up-converting to UHD-4K and HDR LUT enabled.</b></p> <p>In previous versions, some sources with high frequency content produced a high level of artifacts when up-converting to UHD-4K and HDR LUT enabled.</p>

## KNOWN BUGS & LIMITATIONS

Ref #	Description
<a href="#">XIP3901UC-1331</a>	<p><b>Custom LUT Limitations</b></p> <p>Custom LUTs are not managed by Factory, User Presets and Profiles. To delete Custom LUTs, you need to manually delete each of them.</p> <p>Furthermore, Custom LUTs Files are shared by all XIP-3901 applications: XIP-3901-UC, XIP-3901-DC, XIP-3901-FS, and so on.</p>
XIP3901UC-782	<p><b>In 3G minimum delay mode, the audio test tone is not present at the output.</b></p> <p>The test pattern's audio test tone is generated in the audio frame sync. While in 3G minimum delay mode, the audio frame sync is bypassed. Consequently, when the test pattern generator is enabled, there is no test tone at the output.</p>
XIP3901UC-783	<p><b>Metadata may not be processed properly.</b></p> <p>Incoming metadata is passed through to the output without any processing. This may result in a non-conforming conversion. E.g. CEA-708B packets during 4K to 1080i conversions.</p>
XIP3901UC-784	<p><b>Glitches occur in the active video of the test pattern when the input format changes.</b></p> <p>When the test pattern is enabled, there are glitches in the active video only (no TRS errors) when the input format is changed.</p>
XIP3901UC-785	<p><b>No error is reported for 3G-Level B DS sources.</b></p> <p>3G Level B Dual Stream input signals are not supported. They are erroneously identified as Dual Link. When this occurs, the error is not reported, and the output is invalid.</p>
XIP3901UC-796	<p><b>Potential problem with metadata packet placement during HD/3G-A to 3G-B operation or 3G-B to 3G-A operation.</b></p> <p><u>HD/3G-A to 3G-B/Quad Link 3G-B:</u></p>

	<p>Some incoming metadata packets, other than audio or any processed metadata, may pass through to the output and may end up on an incorrect line on link A and/or be placed on link B.</p> <p>This will occur only for HD/3G-A inputs.</p> <p><u>3G-B to 3G-A/Quad Link 3G-A:</u></p> <p>Some incoming metadata packets, other than audio or any processed metadata, may pass through to the output and may end up on an incorrect line.</p> <p>This will occur only for 3G-A/Quad Link 3G-A outputs.</p>
XIP3901UC-659	<p><b>SD-SDI video format is not reported.</b></p> <p>Although SD-SDI input signals are unsupported, the video format should be reported but is identified as "unknown format" instead.</p>
XIP3901UC-1012	<p><b>Application version is not updated in the local menu.</b></p> <p>Upgrading an application that is not in use will not update its application version in the local menu. The version in the local menu is updated at boot time.</p>

## UPGRADE PACKAGE: 1.2.0

**Firmware version:** [1.2.0 \(CPU 1.2.0.327, FPGA 1.1.0.70\)](#)

**Release date:** [2019-02-15](#)

**iControl compatibility:** [7.51+](#)

**iControl Solo compatibility:** [7.51+](#)

**RCP-200 compatibility:** [N/A](#)

**Hardware compatibility:** [This upgrade package applies to all existing hardware assemblies.](#)

**Release type:** [Official release](#)

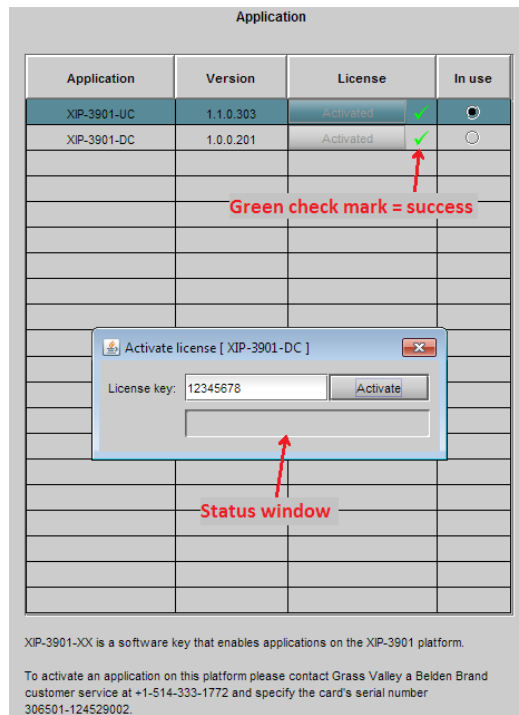
## ENHANCEMENTS & NEW FEATURES

Ref #	Description
<a href="#">XIP3901UC-1090</a>	<p><b>Wide HDR Ref White Range</b></p> <p>Support wide HDR Ref White range for :</p> <ul style="list-style-type: none"> <li>- SDR to HLG BT.2100</li> <li>- HLG BT.2100 to SDR</li> <li>- SDR to PQ BT.2100</li> <li>- PQ BT.2100 to SDR</li> </ul>
<a href="#">XIP3901UC-1089</a>	<p><b>Input &amp; Output Range</b></p> <p>Control Input Range for PQ BT.2100 to SDR and Output Range for SDR to PQ BT.2100</p>
<a href="#">XIP3901UC-1096</a>	<p><b>New Rear XIP-3901-3+DRP-H</b></p> <p>Support new XIP-3901 rear with HD BNC</p>

## BUG FIXES

Ref #	Description
XIP3901UC-1021	<p><b>Application Manager does not show success after activating a license.</b></p> <p>The Application Manager panel is used to activate or switch between applications. It shows all the applications on the platform, their respective versions, whether their license keys have been activated, and which one is currently in use. It is accessed by clicking the Application button in the iControl XIP-3901-UC control panel.</p> <p>To activate an application, click the Activate button in the License column. In the Activate license dialog box that appears, enter the license key and click Activate. If the key is valid, the status window under the key should become green to indicate success but does not. Yet successful activation of the license is confirmed with the green check mark that now appears in the License column. The dialog box can now be</p>

closed. See the following image:



**Application**

Application	Version	License	In use
XIP-3901-UC	1.1.0.303	Activated	<input checked="" type="checkbox"/>
XIP-3901-DC	1.0.0.201	Activated	<input checked="" type="checkbox"/>

Green check mark = success

Activate license [ XIP-3901-DC ]

License key: 12345678

Activate

Status window

XIP-3901-XX is a software key that enables applications on the XIP-3901 platform.

To activate an application on this platform please contact Grass Valley a Belden Brand customer service at +1-514-333-1772 and specify the card's serial number 306501-124529002.

## KNOWN BUGS & LIMITATIONS

Ref #	Description
XIP3901UC-782	<p><b>In 3G minimum delay mode, the audio test tone is not present at the output.</b></p> <p>The test pattern's audio test tone is generated in the audio frame sync. While in 3G minimum delay mode, the audio frame sync is bypassed. Consequently, when the test pattern generator is enabled, there is no test tone at the output.</p>
XIP3901UC-783	<p><b>Metadata may not be processed properly.</b></p> <p>Incoming metadata is passed through to the output without any processing. This may result in a non-conforming conversion. E.g. CEA-708B packets during 4K to 1080i conversions.</p>

XIP3901UC-784	<p><b>Glitches occur in the active video of the test pattern when the input format changes.</b></p> <p>When the test pattern is enabled, there are glitches in the active video only (no TRS errors) when the input format is changed.</p>
XIP3901UC-785	<p><b>No error is reported for 3G-Level B DS sources.</b></p> <p>3G Level B Dual Stream input signals are not supported. They are erroneously identified as Dual Link. When this occurs, the error is not reported, and the output is invalid.</p>
XIP3901UC-796	<p><b>Potential problem with metadata packet placement during HD/3G-A to 3G-B operation or 3G-B to 3G-A operation.</b></p> <p><u>HD/3G-A to 3G-B/Quad Link 3G-B:</u></p> <p>Some incoming metadata packets, other than audio or any processed metadata, may pass through to the output and may end up on an incorrect line on link A and/or be placed on link B.</p> <p>This will occur only for HD/3G-A inputs.</p> <p><u>3G-B to 3G-A/Quad Link 3G-A:</u></p> <p>Some incoming metadata packets, other than audio or any processed metadata, may pass through to the output and may end up on an incorrect line.</p> <p>This will occur only for 3G-A/Quad Link 3G-A outputs.</p>
XIP3901UC-659	<p><b>SD-SDI video format is not reported.</b></p> <p>Although SD-SDI input signals are unsupported, the video format should be reported but is identified as "unknown format" instead.</p>
XIP3901UC-1012	<p><b>Application version is not updated in the local menu.</b></p> <p>Upgrading an application that is not in use will not update its application version in the local menu. The version in the local menu is updated at boot time.</p>



## UPGRADE PACKAGE: 1.1.0

**Firmware version:** [1.1.0 \(CPU 1.1.0.313, FPGA 1.1.0.70\)](#)

**Release date:** [2018-10-12](#)

**iControl compatibility:** [7.50+](#)

**iControl Solo compatibility:** [7.50+](#)

**RCP-200 compatibility:** [N/A](#)

**Hardware compatibility:** [This upgrade package applies to all existing hardware assemblies.](#)

**Release type:** [Official release](#)

## ENHANCEMENTS & NEW FEATURES

Ref #	Description
XIP3901UC-605	<p><b>Introduction of the XIP-3901 agile processing platform.</b></p> <p>To meet customers' needs both now and in the future, the XIP-3901 uses a flexible "virtualized" hardware platform. Based on a powerful FPGA engine, the XIP-3901 can be reconfigured with software updates for different applications as requirements change.</p> <p>Using iControl, it is possible to activate or switch between applications such as XIP-3901-UC and XIP-3901-DC.</p>
XIP3901UC-604	<p><b>Addition of the video blackburst input as an external reference source.</b></p> <p>The card can now lock on an NTSC or PAL blackburst using the REF IN connector on the XIP-3901-3+DRP rear panel.</p>

## BUG FIXES

Ref #	Description
XIP3901UC-715	<b>Locking to a reference signal can take up to 10 seconds.</b>

When recovering a valid reference signal, the card was taking up to 10 seconds to lock. It is now reduced to a few seconds.

## KNOWN BUGS & LIMITATIONS

Ref #	Description
XIP3901UC-782	<p><b>In 3G minimum delay mode, the audio test tone is not present at the output.</b></p> <p>The test pattern's audio test tone is generated in the audio frame sync. While in 3G minimum delay mode, the audio frame sync is bypassed. Consequently, when the test pattern generator is enabled, there is no test tone at the output.</p>
XIP3901UC-783	<p><b>Metadata may not be processed properly.</b></p> <p>Incoming metadata is passed through to the output without any processing. This may result in a non-conforming conversion. E.g. CEA-708B packets during 4K to 1080i conversions.</p>
XIP3901UC-784	<p><b>Glitches occur in the active video of the test pattern when the input format changes.</b></p> <p>When the test pattern is enabled, there are glitches in the active video only (no TRS errors) when the input format is changed.</p>
XIP3901UC-785	<p><b>No error is reported for 3G-Level B DS sources.</b></p> <p>3G Level B Dual Stream input signals are not supported. They are erroneously identified as Dual Link. When this occurs, the error is not reported, and the output is invalid.</p>
XIP3901UC-796	<p><b>Potential problem with metadata packet placement during HD/3G-A to 3G-B operation or 3G-B to 3G-A operation.</b></p> <p><u>HD/3G-A to 3G-B/Quad Link 3G-B:</u></p> <p>Some incoming metadata packets, other than audio or any processed</p>

	<p>metadata, may pass through to the output and may end up on an incorrect line on link A and/or be placed on link B.</p> <p>This will occur only for HD/3G-A inputs.</p> <p><u>3G-B to 3G-A/Quad Link 3G-A:</u></p> <p>Some incoming metadata packets, other than audio or any processed metadata, may pass through to the output and may end up on an incorrect line.</p> <p>This will occur only for 3G-A/Quad Link 3G-A outputs.</p>
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XIP3901UC-1012	<p><b>Application version is not updated in the local menu.</b></p> <p>Upgrading an application that is not in use will not update its application version in the local menu. The version in the local menu is updated at boot time.</p>
XIP3901UC-1021	<p><b>Application Manager does not show success after activating a license.</b></p> <p>The Application Manager panel is used to activate or switch between applications. It shows all the applications on the platform, their respective versions, whether their license keys have been activated, and which one is currently in use. It is accessed by clicking the Application button in the iControl XIP-3901-UC control panel.</p> <p>To activate an application, click the Activate button in the License column. In the Activate license dialog box that appears, enter the license key and click Activate. If the key is valid, the status window under the key should become green to indicate success but does not. Yet successful activation of the license is confirmed with the green check mark that now appears in the License column. The dialog box can now be closed. See the following image:</p>



## UPGRADE PACKAGE: 1.0.0

**Firmware version:** [1.0.0 \(CPU 1.0.0.232, FPGA 1.0.0.57\)](#)

**Release date:** [2018-05-25](#)

**iControl compatibility:** [7.20+](#)

**iControl Solo compatibility:** [7.20+](#)

**RCP-200 compatibility:** [N/A](#)

**Hardware compatibility:** [This upgrade package applies to all existing hardware assemblies.](#)

**Release type:** [Official release](#)

## KNOWN BUGS & LIMITATIONS

Ref #	Description
<a href="#">XIP3901UC-715</a>	<p><b>Locking to a reference signal can take up to 10 seconds.</b></p> <p>When recovering a valid reference signal, the card was taking up to 10 seconds to lock. It is now reduced to a few seconds.</p>
<a href="#">XIP3901UC-782</a>	<p><b>In 3G minimum delay mode, the audio test tone is not present at the output.</b></p> <p>The test pattern's audio test tone is generated in the audio frame sync. While in 3G minimum delay mode, the audio frame sync is bypassed. Consequently, when the test pattern generator is enabled, there is no test tone at the output.</p>
<a href="#">XIP3901UC-783</a>	<p><b>Metadata may not be processed properly.</b></p> <p>Incoming metadata is passed through to the output without any processing. This may result in a non-conforming conversion. E.g. CEA-708B packets during 4K to 1080i conversions.</p>
<a href="#">XIP3901UC-784</a>	<p><b>Glitches occur in the active video of the test pattern when the input format changes.</b></p> <p>When the test pattern is enabled, there are glitches in the active video only (no TRS errors) when the input format is changed.</p>

<p><a href="#">XIP3901UC-785</a></p>	<p><b>No error is reported for 3G-Level B DS sources.</b></p> <p>3G Level B Dual Stream input signals are not supported. They are erroneously identified as Dual Link. When this occurs, the error is not reported and the output is invalid.</p>
<p><a href="#">XIP3901UC-796</a></p>	<p><b>Potential problem with metadata packet placement during HD/3G-A to 3G-B operation or 3G-B to 3G-A operation.</b></p> <p><u>HD/3G-A to 3G-B/Quad Link 3G-B:</u></p> <p>Some incoming metadata packets, other than audio or any processed metadata, may pass through to the output and may end up on an incorrect line on link A and/or be placed on link B.</p> <p>This will occur only for HD/3G-A inputs.</p> <p><u>3G-B to 3G-A/Quad Link 3G-A:</u></p> <p>Some incoming metadata packets, other than audio or any processed metadata, may pass through to the output and may end up on an incorrect line.</p> <p>This will occur only for 3G-A/Quad Link 3G-A outputs.</p>
<p><a href="#">XIP3901UC-659</a></p>	<p><b>SD-SDI video format is not reported.</b></p> <p>Although SD-SDI input signals are unsupported, the video format should be reported but is identified as "unknown format" instead.</p>