# ETH3-REF

# **Release History**

Upgrade	Comprising:		Release Date	User Manual for this release (Grass Valley
Package	Firmware Version Software V	Software Version		document #)
<u>2.0.0</u>	2.0.0	2.0.0	2017-08-07	3007-99M00-103
				6103-98M02-103
<u>1.0.7</u>	1.3.0.528	1.0.7	2016-12-12	3007-99M00-102
				6103-98M02-102
<u>1.0.6</u>	1.0.4.522	1.0.6	2016-06-15	3007-99M00-102
				6103-98M02-102
<u>1.0.3</u>	1.0.3.501	1.0.3	2016-01-11	3007-99M00-101
				6103-98M02-101

**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: 2.0.0.555 Release date: 2017-08-07 iControl compatibility: 7.10+ iControl Solo compatibility: 7.10+ RCP-200 compatibility: NA Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

#### ENHANCEMENTS & NEW FEATURES

Ref #	Description
<u>CPU3REF-</u> <u>143</u>	Implement SMPTE-2059-1 (based on IEEE-1588) Available only in GV Node and Advanced frame controller.
<u>CPU3REF-</u> <u>144</u>	Implement SMPTE-2059-2 (based on IEEE-1588) Available only in GV Node and Advanced frame controller. The TLV messages are not supported.

#### **BUGS FIXED IN THIS RELEASE**

Ref #	Description
<u>DSERV-</u> <u>1750</u>	<ul> <li>"Option" tab is missing in the iControl Frame Reference panel</li> <li>The iControl Frame Reference panel does not have an Option tab. This tab is used to activate various options.</li> <li>WORKAROUND: License key can be entered in the frame's local LCD menu. Press SEL when ACTIVATE NOW is displayed.</li> </ul>
<u>CPU3-866</u>	iControl panel does not reflect valid LTC status The UI only displays the LTC1 input validity.

Ref #	Description
	N/A

# **UPGRADE PACKAGE: 1.0.7**

Firmware version: 1.3.0.528 Release date: 2016-12-12 iControl compatibility: 7.10+ iControl Solo compatibility: 7.10+ RCP-200 compatibility: NA Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

#### **ENHANCEMENTS & NEW FEATURES**

Ref #	Description
<u>CPU3-91</u>	Implement 2nd REF input Available only in GV Node and Advanced frame controller.
<u>CPU3-90</u>	Implement 2nd LTC input Available only in GV Node and Advanced frame controller.

#### **BUGS FIXED IN THIS RELEASE**

Ref #	Description
<u>CPU3-514</u>	<b>URS not cleanly disabled when Reference option is disabled</b> When the Reference option is disabled, the URS signal distributed in the frame is still active but does not contain synchronization information. The cards will not lock onto the signal but some (mostly audio- only cards like the DAP-1781) still report it as being present in their iControl panel.
<u>CPU3-472</u>	<b>Time Code Logging may skip or repeat the Time Code frame count</b> When Time Code Logging is enabled, there may be frames skipped or repeated in the Densite messages sent to the loggers like the General Status Manager (GSM). Fortunately, they ignore the frame count. The problem is amplified when multiple cards are streaming (thumbnails, H264) in the same frame. The Time Code sent in the URS signal is not affected.

Ref #	Description
<u>DSERV-</u> <u>1750</u>	<ul> <li>"Option" tab is missing in the iControl Frame Reference panel</li> <li>The iControl Frame Reference panel does not have an Option tab. This tab is used to activate various options.</li> <li>WORKAROUND: License key can be entered in the frame's local LCD menu. Press SEL when ACTIVATE NOW is displayed.</li> </ul>
<u>CPU3-866</u>	<b>iControl panel does not reflect valid LTC status</b> The UI only displays the LTC1 input validity.

# **UPGRADE PACKAGE: 1.0.6**

Firmware version: 1.0.4.522 Release date: 2016-06-15 iControl compatibility: 7.10+ iControl Solo compatibility: 7.10+ RCP-200 compatibility: NA Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

#### **ENHANCEMENTS & NEW FEATURES**

Ref #	Description
<u>CPU3-460</u>	Support of tri-level reference inputs

#### **BUGS FIXED IN THIS RELEASE**

Ref #	Description
<u>CPU-686</u>	<ul> <li>Upgrade of the ETH3-REF can hang and then fail (rarely)</li> <li>NOTE: This fix can only be applied at the factory.</li> <li>The upgrade of the ETH3-REF ("Frame Reference") with the iControl Densite Upgrade Manager (DUM) can fail.</li> <li>SYMPTOMS:</li> <li>The upgrade process initiates but hangs (usually at 0.0%) and ultimately times out and fails. At this point, the card is ignoring communications from certain software clients connected to the frame. If one of those software is iControl, its Navigator windows will permanently show the ETH3-REF as "Slot 25 : Empty". The ETH3-REF looks broken but, in fact, it is not.</li> <li>WORKAROUND: <ul> <li>Power cycle the card</li> <li>Refrain from touching the front LCD touchscreen</li> <li>On the "Status &gt; Connections" web page of the frame, make sure to have less than 4 connections. If it is not the case, you may have to remove KMX cards from the frame and reboot again.</li> <li>Restart the upgrade</li> </ul> </li> </ul>
<u>CPU3-675</u>	Upgrade of the ETH3-REF can render it unusable (very rarely) NOTE: This fix can only be applied at the factory. The upgrade of the ETH3-REF ("Frame Reference") with the iControl Densite Upgrade Manager (DUM)

	can fail and brick it (make it unusable).	
	SYMPTOMS: The upgrade process initiates but hangs and becomes unresponsive. Power cycling the card does NOT solve the problem. The card needs to be sent to repair at the factory.	
<u>CPU3-474</u>	Audio synchronization in URS not aligned	
	Linear Time Code (LTC) pass-through function drops time code packets	
<u>CPU3-444</u>	If the Linear Time Code (LTC) signal at the LTC input "LTC IN" is asynchronous with respect to the reference signal at the REF input "REF IN", the time code pass-through mode should be activated. This ensures that the incoming time code data is sent in the intra-frame Universal Reference Signal (URS) exactly when received instead of at the beginning of the REF input's frame. This function is buggy, thus time code packets are dropped.	
	Presently, this function can only be activated using the frame's local LCD menu: TIME CODE > PROCESSING MODE > PASS-THROUGH.	
	The "No Time Code" alarm can be activated when "Time Code source" is set to OFF	
<u>CPU3-669</u>	The "No Time Code" alarm can be activated even though the "Time Code source" is set to OFF and no Time Code signal is detected. This causes the chosen Alarm Level (LED color) to be set.	

Ref #	Description
<u>CPU3-472</u>	<b>Time Code Logging may skip or repeat the Time Code frame count</b> When Time Code Logging is enabled, there may be frames skipped or repeated in the Densite messages sent to the loggers like the General Status Manager (GSM). Fortunately, they ignore the frame count. The problem is amplified when multiple cards are streaming (thumbnails, H264) in the same frame. The Time Code sent in the URS signal is not affected.
<u>CPU3-514</u>	<b>URS not cleanly disabled when Reference option is disabled</b> When the Reference option is disabled, the URS signal distributed in the frame is still active but does not contain synchronization information. The cards will not lock onto the signal but some (mostly audio- only cards like the DAP-1781) still report it as being present in their iControl panel.
<u>DSERV-</u> <u>1750</u>	<ul> <li>"Option" tab is missing in the iControl Frame Reference panel</li> <li>The iControl Frame Reference panel does not have an Option tab to enter the Reference Activation key used to enable the URS signal.</li> <li>WORKAROUND: License key can be entered in the frame's local LCD menu. Press SEL when ACTIVATE NOW is displayed.</li> </ul>

# **UPGRADE PACKAGE: 1.0.3**

Firmware version: 1.0.3.501 Release date: 2016-01-11 iControl compatibility: 7.10+ iControl Solo compatibility: 7.10+ RCP-200 compatibility: NA Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

#### **ENHANCEMENTS & NEW FEATURES**

Ref #	Description
<u>CPU3-67</u>	Initial PUBLIC release of the "basic" CPU-ETH3 for the FR4 frame This is the first official version available for production of the "basic" CPU-ETH3.

#### **BUGS FIXED IN THIS RELEASE**

Ref #	Description

Ref #	Description
<u>CPU3-675</u>	Upgrade of the ETH3-REF can render it unusable (very rarely)
	The upgrade of the ETH3-REF ("Frame Reference") with the iControl Densite Upgrade Manager (DUM) can fail and brick it (make it unusable).
	SYMPTOMS: The upgrade process initiates but hangs and becomes unresponsive. Power cycling the card does NOT solve the problem. The card needs to be sent to repair at the factory.
<u>CPU-686</u>	Upgrade of the ETH3-REF can hang and then fail (rarely)
	The upgrade of the ETH3-REF ("Frame Reference") with the iControl Densite Upgrade Manager (DUM) can fail.

	SYMPTOMS: The upgrade process initiates but hangs (usually at 0.0%) and ultimately times out and fails. At this point, the card is ignoring communications from certain software clients connected to the frame. If one of those software is iControl, its Navigator windows will permanently show the ETH3-REF as "Slot 25 : Empty". The ETH3-REF looks broken but, in fact, it is not.
	<ul> <li>WORKAROUND: <ul> <li>Power cycle the card</li> <li>Refrain from touching the front LCD touchscreen</li> <li>On the "Status &gt; Connections" web page of the frame, make sure to have less than 4 connections. If it is not the case, you may have to remove KMX cards from the frame and reboot again.</li> <li>Restart the upgrade</li> </ul> </li> </ul>
<u>CPU3-460</u>	Support of tri-level reference inputs not implemented
	Time Code Logging may skip or repeat the Time Code frame count
<u>CPU3-472</u>	When Time Code Logging is enabled, there may be frames skipped or repeated in the Densite messages sent to the loggers like the General Status Manager (GSM). Fortunately, they ignore the frame count. The problem is amplified when multiple cards are streaming (thumbnails, H264) in the same frame. The Time Code sent in the URS signal is not affected.
	URS not cleanly disabled when Reference option is disabled
<u>CPU3-514</u>	When the Reference option is disabled, the URS signal distributed in the frame is still active but does not contain synchronization information. The cards will not lock onto the signal but some (mostly audio-only cards like the DAP-1781) still report it as being present in their iControl panel.
	"Option" tab is missing in the iControl Frame Reference panel
<u>DSERV-</u> <u>1750</u>	The iControl Frame Reference panel does not have an Option tab to enter the Reference Activation key used to enable the URS signal.
1750	WORKAROUND: License key can be entered in the frame's local LCD menu. Press SEL when ACTIVATE NOW is displayed.
	Linear Time Code (LTC) pass-through function drops time code packets
<u>CPU3-444</u>	If the Linear Time Code (LTC) signal at the LTC input "LTC IN" is asynchronous with respect to the reference signal at the REF input "REF IN", the time code pass-through mode should be activated. This ensures that the incoming time code data is sent in the intra-frame Universal Reference Signal (URS) exactly when received instead of at the beginning of the REF input's frame. This function is buggy, thus time code packets are dropped.
	Presently, this function can only be activated using the frame's local LCD menu: TIME CODE > PROCESSING MODE > PASS-THROUGH.
<u>CPU3-474</u>	Audio synchronization in URS not aligned
	The "No Time Code" alarm can be activated when "Time Code source" is set to OFF
<u>CPU3-669</u>	The "No Time Code" alarm can be activated even though the "Time Code source" is set to OFF and no Time Code signal is detected. This causes the chosen Alarm Level (LED color) to be set.