

## CPU-ETH3

(GVN-CPU-ETH3 / DENSITE 3+ CPU-ETH3-ADV)

### Release History

Upgrade Package	Comprising:		Release Date	User Manual for this release (Grass Valley document #)
	Firmware Version	Software Version		
<a href="#">1.3.3</a>	1.3.3.684	NA	2017-07-13	3007-99M00-101 6103-98M02-101
<a href="#">1.3.1</a>	1.3.1.675	NA	2017-03-07	3007-99M00-101 6103-98M02-101
<a href="#">1.3.0</a>	1.3.0.672	NA	2016-12-12	3007-99M00-101 6103-98M02-101
<a href="#">1.0.5</a>	1.0.5.594	NA	2016-07-19	3007-99M00-101 6103-98M02-101
<a href="#">1.0.4</a>	1.0.4.584	NA	2016-05-30	3007-99M00-101 6103-98M02-101
<a href="#">1.0.3</a>	1.0.3.530	NA	2016-02-19	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: 1.3.3

Firmware version: [1.3.3.684](#)

Release date: [2017-07-13](#)

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
<a href="#">CPU3-949</a>	Added PTP statuses to « Reference Information » web page.

## KNOWN BUGS & LIMITATIONS

Ref #	Description
CPU3-917	<b>CPU-ETH3 assembly 3034-0100-503 cannot be downgraded below v1.3.0</b> Following message will be displayed during downgrade: "Cannot downgrade below version 1.3.0"
<a href="#">CPU3-62</a>	<b>DHCP client not implemented</b>
<a href="#">CPU3-510</a>	<b>Broken compatibility with RCP-10x0</b> The control Panel RCP-1010, RCP-1020, RCP-1030 and RCP-1040 are incompatible with the new Densite controller (CPU-ETH3).
<a href="#">CPU3-515</a>	<b>Broken compatibility with SSP-3801</b> The SSP-3801 is incompatible with the new Densite controller (CPU-ETH3).  VERSIONS AFFECTED: versions earlier than 1.6.0 WORKAROUND: Get a firmware update on SSP-3801.

## UPGRADE PACKAGE: 1.3.1

Firmware version: [1.3.1.675](#)

Release date: [2017-03-07](#)

iControl compatibility: [7.10+](#)

iControl Solo compatibility: [7.10+](#)

RCP-200 compatibility: [NA](#)

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

## BUGS FIXED IN THIS RELEASE

Ref #	Description
<a href="#">CPU3-893</a>	Saving restore point from card edge menu fails and causes a card reset in a GV Node chassis.

## KNOWN BUGS & LIMITATIONS

Ref #	Description
CPU3-917	<b>CPU-ETH3 assembly 3034-0100-503 cannot be downgraded below v1.3.0</b> Following message will be displayed during downgrade: "Cannot downgrade below version 1.3.0"
<a href="#">CPU3-62</a>	<b>DHCP client not implemented</b>
<a href="#">CPU3-510</a>	<b>Broken compatibility with RCP-10x0</b> The control Panel RCP-1010, RCP-1020, RCP-1030 and RCP-1040 are incompatible with the new Densite controller (CPU-ETH3).
<a href="#">CPU3-515</a>	<b>Broken compatibility with SSP-3801</b> The SSP-3801 is incompatible with the new Densite controller (CPU-ETH3).  VERSIONS AFFECTED: versions earlier than 1.6.0 WORKAROUND: Get a firmware update on SSP-3801.

## UPGRADE PACKAGE: 1.3.0

Firmware version: [1.3.0.672](#)

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
<a href="#">CPU3-824</a>	Network link redundancy option can now be activated through the LCD menu
<a href="#">CPU3-830</a>	<p><b>The controller now allows 10 free client connections</b></p> <p>By default, there are N software clients that can connect to the controller. If additional clients want a connection, they need to specifically request it. Thus the first N clients get a “free” connection. The number N has now been changed to 10.</p>
<a href="#">CPU3-41</a>	<p><b>Changing Network settings does NOT trigger an automatic reboot</b></p> <p>In previous releases, the controller would reboot automatically after changing Network settings.</p>
<a href="#">CPU3-833</a>	Addition of statuses in web page for 2 <sup>nd</sup> REF and LTC inputs
<a href="#">CPU3-760</a>	<p><b>Report SFP info</b></p> <p>This is done in the web page and the local LCD menu.</p> <p>LIMITATION: not reported in iControl.</p>

## BUGS FIXED IN THIS RELEASE

Ref #	Description
<a href="#">CPU3-734</a>	Sometimes at power-up, the network interfaces are down

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## KNOWN BUGS & LIMITATIONS

Ref #	Description
<a href="#">CPU3-62</a>	DHCP client not implemented
<a href="#">CPU3-510</a>	<b>Broken compatibility with RCP-10x0</b> The control Panel RCP-1010, RCP-1020, RCP-1030 and RCP-1040 are incompatible with the new Densite controller (CPU-ETH3).
<a href="#">CPU3-515</a>	<b>Broken compatibility with SSP-3801</b> The SSP-3801 is incompatible with the new Densite controller (CPU-ETH3).  VERSIONS AFFECTED: versions earlier than 1.6.0 WORKAROUND: Get a firmware update on SSP-3801.

## UPGRADE PACKAGE: 1.0.5

Firmware version: [1.0.5.594](#)

Release date: [2016-07-19](#)

iControl compatibility: [7.10+](#)

iControl Solo compatibility: [7.10+](#)

RCP-200 compatibility: [NA](#)

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

## BUGS FIXED IN THIS RELEASE

Ref #	Description
<a href="#">CPU3-511</a>	<p><b>Broken compatibility with KMV-3911 and KMV-3901</b></p> <p><b>NOTE:</b> Fixed with update of KMV to version 8.00.</p> <p>These cards are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames. The problem occurs only when the cards are inserted in slots 21 to 24 of the FR4 frame. In these cases, they are not displaying on the LCD screen once the attention button is pressed.</p> <p>VERSIONS AFFECTED: for both, version 7.91 and lower</p>
<a href="#">CPU3-516</a>	<p><b>Broken compatibility with Kaleido-Modular-X series (KMX)</b></p> <p><b>NOTE:</b> Fixed with update of KMX to version 8.00.</p> <p>The KMX Multiviewer cards are incompatible with the new Densite controller (CPU-ETH3).</p> <p>VERSIONS AFFECTED:</p> <ul style="list-style-type: none"> <li>The KMX-3901-IN cards (all flavors) running KXS version below 8.00 are not compatible.</li> <li>The KMX-3901-OUT card is NOT affected.</li> </ul>
<a href="#">CPU3-676</a>	<p><b>"Reference Information" web page returns cryptic error message (ACK 4272)</b></p> <p>This issue can happen if the card is currently being upgraded or if it is stuck in its bootloader (failed upgrade). The message displayed in the "Reference Information" web page is :</p> <p><b>ERROR: failed to received ACK 4272</b></p>
<a href="#">CPU3-699</a>	<p><b>Cannot control a KMX-4911 using the NP0016 protocol</b></p> <p>Using the network port of the frame controller, the KMX-4911 cards should be controllable via the NP0016 protocol (routing protocol)</p>

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<a href="#">CPU3-718</a>	Sometimes after a power cycle of the frame, cards are not accessible through the LCD screen
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## KNOWN BUGS & LIMITATIONS

Ref #	Description
<a href="#">CPU3-62</a>	DHCP client not implemented
<a href="#">CPU3-510</a>	<b>Broken compatibility with RCP-10x0</b> The control Panel RCP-1010, RCP-1020, RCP-1030 and RCP-1040 are incompatible with the new Densite controller (CPU-ETH3).
<a href="#">CPU3-515</a>	<b>Broken compatibility with SSP-3801</b> The SSP-3801 is incompatible with the new Densite controller (CPU-ETH3).  VERSIONS AFFECTED: versions earlier than 1.6.0 WORKAROUND: Get a firmware update on SSP-3801.

## UPGRADE PACKAGE: 1.0.4

Firmware version: [1.0.4.584](#)

Release date: [2016-05-30](#)

iControl compatibility: [7.20+](#)

iControl Solo compatibility: [7.20+](#)

RCP-200 compatibility: [NA](#)

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

## ENHANCEMENTS & NEW FEATURES

Ref #	Description
<a href="#">CPU3-339</a>	<b>Implement basic SNMP agent</b> This is the same feature as for the Densite 3 frame.
<a href="#">CPU3-64</a>	<b>Implement network link redundancy option</b> This is the same feature as for the Densite 3 frame.
<a href="#">CPU3-577</a>	<b>The "Connections" web page has an improved status description</b> As described in the "Help" section of that web page, a new yellow widget was added to more accurately represent the status of Densite connections. The yellow status tells the user that certain types of data (either RAW or non-solicited) are not transferred because the maximum number of legacy connections has been reached. A legacy connection from a Densite client (eg. iControl) is a connection that does NOT specifically ask for those particular type of data (RAW and/or non-solicited).
<a href="#">CPU3-499</a>	<b>Changed default IP addresses (for manufacturing purposes)</b> ETH1 = 192.168.3.3 ETH2 = 192.168.4.3
<a href="#">CPU3-63</a>	<b>Implementation of the HOME screen on the LCD display</b> The HOME screen of the LCD gives an overall status of the frame. This includes an overall status of each card in the frame. The menu of a particular card can be accessed by touching its associated button in the HOME screen.
<a href="#">CPU3-401</a>	<b>In GV Node frames, implement volatile backup of Router board routing</b> The crosspoint configuration of the IFM board (Internal Fabric Module) is mirrored in the volatile memory of the controller (CPU-ETH3). So replacing the IFM board with a new one while the CPU-ETH3 is still powered would copy the crosspoint configuration to the new IFM board.



**WARNING:** if the CPU-ETH3 is powered down during the process, the backup/restoration operation will fail.

## BUGS FIXED IN THIS RELEASE

Ref #	Description
<a href="#">CPU3-589</a>	<p><b>Clicking on the "CTRL EXECUTION" card edge menu item locks up the card and reboot</b></p> <p>Once the user accesses this menu item, the card immediately locks up. It then eventually reboots without the user's confirmation to do so.</p>

## KNOWN BUGS & LIMITATIONS

Ref #	Description
<a href="#">CPU3-693</a>	<p><b>The card may boot with the wrong version of software</b></p> <p>The card has two partitions that it can boot from: the active partition and the fallback partition. The card is supposed to run on the fallback partition ONLY in cases where something goes horribly wrong during an upgrade and/or power-up.</p> <p>But in some cases the card will boot with the fallback partition for no good reason. When coming out of production, both partitions are identical so the problem is masked and can only be apparent after a software upgrade.</p> <p>WORKAROUND: reboot the card until the proper partition is selected.</p>
<a href="#">CPU3-62</a>	<b>DHCP client not implemented</b>
<a href="#">CPU3-695</a>	<p><b>Ethernet redundancy option activation/deactivation</b></p> <p>If the Ethernet redundancy activation is disabled, the actual key code disappears from the entry field. If the user disables the function he may not have the key code handy to re-enter it.</p>
<a href="#">CPU3-510</a>	<p><b>Broken compatibility with RCP-10x0</b></p> <p>The control Panel RCP-1010, RCP-1020, RCP-1030 and RCP-1040 are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.</p>
<a href="#">CPU3-515</a>	<b>Broken compatibility with SSP-3801</b>

	<p>The SSP-3801 is incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.</p> <p>VERSIONS AFFECTED: versions earlier than 1.6.0</p> <p>WORKAROUND:</p> <ul style="list-style-type: none"> <li>Get a firmware update on SSP-3801.</li> </ul>
<a href="#">CPU3-516</a>	<p><b>Broken compatibility with Kaleido-Modular-X series (KMX)</b></p> <p>The KMX Multiviewer cards are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.</p> <p>VERSIONS AFFECTED:</p> <ul style="list-style-type: none"> <li>The KMX-3901-IN cards (all flavors) running KXS version below 8.00 are not compatible.</li> <li>The KMX-3901-OUT card is NOT affected.</li> </ul> <p>WORKAROUND:</p> <ul style="list-style-type: none"> <li>Upgrade to KXS 8.00 or newer.</li> </ul>
<a href="#">CPU3-511</a>	<p><b>Broken compatibility with KMV-3911 and KMV-3901</b></p> <p>These cards are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames. The problem occurs only when the cards are inserted in slots 21 to 24 of the FR4 frame. In these cases, they are not displaying on the LCD screen once the attention button is pressed.</p> <p>VERSIONS AFFECTED: for both, version 7.91 and lower</p> <p>WORKAROUND:</p> <ul style="list-style-type: none"> <li>Upgrade firmware of those cards.</li> </ul>

## UPGRADE PACKAGE: 1.0.3

Firmware version: [1.0.3.530](#)

Release date: [2016-02-19](#)

iControl compatibility: [7.20+](#)

iControl Solo compatibility: [7.20+](#)

RCP-200 compatibility: [NA](#)

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

## ENHANCEMENTS & NEW FEATURES

Ref #	Description
<a href="#">CPU3-251</a>	Alpha support of GV Node frame

## BUGS FIXED IN THIS RELEASE

Ref #	Description
<a href="#">CPU3-543</a>	<b>A card 5 slots down from a card being initialized no longer communicates with CPU-ETH3</b> If a card is re-initialized by simply re-inserting the card or other means, it may prohibit another card, 5 slots down in the frame, to communicate with the CPU-ETH3.
<a href="#">CPU3-526</a>	<b>Minimize access to SD card</b> Minimize wear of SD card.
<a href="#">CPU3-518</a>	<b>Detect and correct SD card corruption on power-up</b> Make fsck run non-interactively at boot time when errors are detected on the file system.
<a href="#">CPU3-527</a>	<b>Detect when file system is remounted read-only because of file system corruption</b> Detect if the file system (/config and /data) gets remounted as read-only when a corruption occurs. When detecting the file system is now read-only, notify user as follows: <ul style="list-style-type: none"> <li>• Set LED red</li> <li>• Write event to Log</li> <li>• Display in local LCD menu (in status)</li> </ul>

<a href="#">CPU3-551</a>	<b>Use md5 to detect file corruptions on the SD card during upgrade</b> Use md5 check to make sure the files in the new file system are not corrupted before switching partition.
<a href="#">CPU3-297</a>	<b>Low-level bootloader (u-boot) updated to meet hardware specifications</b>

## KNOWN BUGS & LIMITATIONS

Ref #	Description
<a href="#">CPU3-63</a>	<b>Home screen : all board status summary</b> Missing status of all cards' LED on the LCD display.  WORKAROUND: Open the frame door to see the card status.
<a href="#">CPU3-64</a>	<b>Optional full network link redundancy using channel bonding</b> The network link will not automatically switch over the secondary physical port in case of failure of the primary port.
<a href="#">CPU3-339</a>	<b>SNMP agent not implemented</b>
<a href="#">CPU3-62</a>	<b>DHCP client not implemented</b>
<a href="#">CPU3-510</a>	<b>Broken compatibility with RCP-10x0</b> The control Panel RCP-1010, RCP-1020, RCP-1030 and RCP-1040 are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.
<a href="#">CPU3-515</a>	<b>Broken compatibility with SSP-3801</b> The SSP-3801 is incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.  VERSIONS AFFECTED: versions earlier than 1.6.0  WORKAROUND: <ul style="list-style-type: none"> <li>Get a firmware update on SSP-3801.</li> </ul>
<a href="#">CPU3-516</a>	<b>Broken compatibility with Kaleido-Modular-X series (KMX)</b> The KMX Multiviewer cards are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.

	<p><b>VERSIONS AFFECTED:</b></p> <ul style="list-style-type: none"> <li>The KMX-3901-IN cards (all flavors) running KXS version below 8.00 are not compatible.</li> <li>The KMX-3901-OUT card is NOT affected.</li> </ul> <p><b>WORKAROUND:</b></p> <ul style="list-style-type: none"> <li>Upgrade to KXS 8.00 or newer.</li> </ul>
<a href="#">CPU3-511</a>	<p><b>Broken compatibility with KMV-3911 and KMV-3901</b></p> <p>These cards are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames. The problem occurs only when the cards are inserted in slots 21 to 24 of the FR4 frame. In these cases, they are not displaying on the LCD screen once the attention button is pressed.</p> <p><b>VERSIONS AFFECTED:</b> for both, version 7.91 and lower</p> <p><b>WORKAROUND:</b></p> <ul style="list-style-type: none"> <li>Upgrade firmware of those cards.</li> </ul>
<a href="#">CPU3-589</a>	<p><b>Clicking on the "CTRL EXECUTION" card edge menu item locks up the card and reboot</b></p> <p>Once the user accesses this menu item, the card immediately locks up. It then eventually reboots without the user's confirmation to do so.</p>

## UPGRADE PACKAGE: 1.0.2

Firmware version: [1.0.2.512](#)

Release date: [2015-12-22](#)

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
<a href="#">CPU3-67</a>	<b>Initial PUBLIC release of the “basic” CPU-ETH3 for the FR4 frame</b> This is the first official version available for production of the “basic” CPU-ETH3.

## KNOWN BUGS & LIMITATIONS

Ref #	Description
<a href="#">CPU3-63</a>	<b>Home screen : all board status summary</b> Missing status of all cards' LED on the LCD display.  WORKAROUND: Open the frame door to see the card status.
<a href="#">CPU3-64</a>	<b>Optional full network link redundancy using channel bonding</b> The network link will not automatically switch over the secondary physical port in case of failure of the primary port.
<a href="#">CPU3-339</a>	<b>SNMP agent not implemented</b>
<a href="#">CPU3-62</a>	<b>DHCP client not implemented</b>
<a href="#">CPU3-510</a>	<b>Broken compatibility with RCP-10x0</b> The control Panel RCP-1010, RCP-1020, RCP-1030 and RCP-1040 are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.

<a href="#">CPU3-515</a>	<p><b>Broken compatibility with SSP-3801</b></p> <p>The SSP-3801 is incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.</p> <p>VERSIONS AFFECTED: versions earlier than 1.6.0</p> <p>WORKAROUND:</p> <ul style="list-style-type: none"> <li>• Get a firmware update on SSP-3801.</li> </ul>
<a href="#">CPU3-516</a>	<p><b>Broken compatibility with Kaleido-Modular-X series (KMX)</b></p> <p>The KMX Multiviewer cards are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames.</p> <p>VERSIONS AFFECTED:</p> <ul style="list-style-type: none"> <li>• The KMX-3901-IN cards (all flavors) running KXS version below 8.00 are not compatible.</li> <li>• The KMX-3901-OUT card is NOT affected.</li> </ul> <p>WORKAROUND:</p> <ul style="list-style-type: none"> <li>• Upgrade to KXS 8.00 or newer.</li> </ul>
<a href="#">CPU3-511</a>	<p><b>Broken compatibility with KMV-3911 and KMV-3901</b></p> <p>These cards are incompatible with the new Densite controller (CPU-ETH3) found in the FR4 and the GV Node frames. The problem occurs only when the cards are inserted in slots 21 to 24 of the FR4 frame. In these cases, they are not displaying on the LCD screen once the attention button is pressed.</p> <p>VERSIONS AFFECTED: for both, version 7.91 and lower</p> <p>WORKAROUND:</p> <ul style="list-style-type: none"> <li>• Upgrade firmware of those cards.</li> </ul>