IPG-3901

High Density SDI/IP Gateway

Release Notes

M3036-9903-110

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Introducing IPG-3901 v1.1.0

The Densité IP Gateway (IPG-3901) plug-and-play modules seamlessly bridge hybrid SDI/IP production environments. As broadcasters migrate to IP-based transport, these space-saving, low-power cards are easily added to existing Densité signal processing platforms, converting real-time, uncompressed, baseband video using SMPTE 2022-6 protocol for distribution over 10 GigE networks, and vice versa.

The gateways support any mix of 3G/HD/SD-SDI production workflows over IP networks. With bidirectional I/O in combinations of 5 in/6 out or 6 in/5 out, the cards offer full redundancy in either unicast or multicast workflows to ensure uninterrupted service.

Based on the proven Densité modular framework of over 100 functional cards, the flexible, space-efficient IPG-3901 cards accommodate a gradual adoption of IP production elements into broadcasting workflows, while protecting operational methods and investment in installed equipment. With flexibility to configure up to 6 IPG-3901 modules per Densité 3 frame and with each IPG-3901 module carrying 11 HD or 6 3G gateways, the Densité 3 platform scales to a density of 66 HD or 36 3G gateways in a 3 RU frame. In the new Densité 3+ FR4 frame, up to12 IPG-3901 modules can be installed giving a density of 132 HD or 72 3G gateways in a 4 RU frame. This means space- and cost-efficient scaling – today and tomorrow.

The Densité IP Gateway can be controlled by the advanced GV Convergent SDN platform, offering unified control across COTS IP switches and SDI routing/processing infrastructures, as well as by the proven iControl systems.

This document lists cumulative changes to the IPG-3901 v1.1.0.

New Features

STAR-1288: System-wide Scan Rate moved to Reference tab

The System-wide Scan Rate panel, which used to be on the Gateway Config tab, is now displayed on the Reference tab. This new location is consistent with other card configuration options and allows easier problem diagnosis of external reference and URS issues.

STAR-983: Support for the IPG-3901-3+DRP rear connector panel

Support was added for the IPG-3901-3+DRP, which is the new rear connector panel used to install the IPG-3901 card in the new Densité 3+ FR1 and Densité 3+ FR4 frames.

STAR-950: SDI output locked to reference

Support was added to the IPG-3901 to allow genlocking of SDI outputs. The IPG-3901 can now lock its outputs to an external reference and/or URS. This functionality is configured using the new Reference tab in iControl.

When the SDI outputs are locked to a reference, output jitter is significantly reduced and conforms to or exceeds the SDI output timing jitter specification.

Please note that although SDI outputs can be locked to a common reference, the SDI outputs can not yet be phase aligned. This will be addressed in a future release.

Fixes

STAR-1194: IPG-3901 cards may lose their MAC address upon reboot

An issue was identified whereby IPG-3901 cards could lose their network MAC addresses if they lost power or were removed from their frame during a reboot. This was corrected so that the cards are more resilient to power loss during reboot and the MAC addresses are no longer lost.

Known Issues

STAR-959: We are missing Card alams and iControl/GSM alarms for the reference

The support of the card alarm and the iControl/GSM alarm is not supported for the support of the reference

STAR-918: Test pattern in 3G is not available

The test pattern is only available in SD and HD (720p and 1080i).

STAR-907: Potential bandwidth problem

When an IGMP v3 Source is specified for multicast and the IPG-3901 is using about 90% of its IP bandwidth (e.g. 6 x HD or 3 x 3G), changing the input IP address/port settings on any of the active gateways might cause an overloading of the switch. This results in a brief (approximately 5 seconds) interruption of all multicast traffic on the switch.

Workaround: To avoid the loss of all inputs, we recommend that you disable the gateway while its IP address or port is being changed.

STAR-888: Densité Upgrade Manager not supported

Upgrading the card through the Densité Upgrade Manager (DUM) is not supported. To upgrade the card, follow the instructions provided with the upgrade package.

STAR-803: SDI jitter may be outside specifications

In some situations, the SDI output jitter may be outside of the timing jitter specifications (10Hz). This may occur when the input streams have too much IP packet jitter or the Output on Error Mode is set to configurable color and activated. This issue can be resolved by ensuring the SDI output is locked to a reference.

STAR-720: Output on Error over Test Pattern

The Output on Error will be activated when the test pattern is enabled for a gateway and the global test pattern format doesn't match the format specified for that gateway.

Supported Devices and Software

IPG-3901 v1.1.0 is compatible with iControl and iControl Solo v7.10 and later.

Contact Us

For technical assistance, contact our international support center at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

An online form for e-mail contact is also available from the website.

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