



MFC-OG3-N

Frame Controller with Networking

Software version 3.03a
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Version 3.03a released 2020-08-05

This release is for the MFC-OG3-N only.

Improved card fault reporting

This release adds textual fault reporting to the Card Fault (SMPTE_STATUS OID 0x0201) parameter. If the parameter from the card reports an alarm table constraint the text and warning/error level from that constraint is used to report the error on the frame door.

This means that the 'Notify on Card Fault' option can now generate an error, or a warning.

NOTE: When a constraint is present, alarms with a level of SEVERITY_OK are not shown on the frame door, only SEVERITY_WARN and SEVERITY_ERROR. When a constraint is not present any non-zero value is an error.

Version 3.03 released 2020-03-09

This release is for the MFC-OG3-N only.

Improved alarm handling

- Fixes some issues with alarms not reporting on front door LED and LCD.
- Added alarm when frame and power supply do not match.
- Fixed bug where maximum power threshold was incorrectly calculated.
- Fixed bug where status of power supply was not properly reported when removed from frame.

Version 3.02 released 2019-07-16

This release is for the MFC-OG3-N only.



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Improved alarm handling

- Alarms generated by the PSU now appear in the 'PSUx Status' field, and no longer appear in the Frame Status field. The PSU alarms are also masked by the renamed 'Notify on PSUx Fault' option.
- Added PSU Fan RPM status field to DashBoard and increased the alarm level from 14,000RPM to 15,000RPM.
- Added more debug printing in the console for power supply troubleshooting.

Version 3.01 released 2019-05-14

This release is for the MFC-OG3-N only.

Removal of DashBoard Lite Applet

The Dashboard applet available on the frame has been removed for security considerations.

Version 3.00a released 2018-05-08

This release is for the MFC-OG3-N only.

Feature Enhancements

This release adds support for several new features.

New OGX High Power Frame

This release supports the new OGX frame and new power supplies.

Frame Glow (OGX Frame only)

The OGX frame features an LED that can be customised by the user. The LED can be configured to a solid color, to reflect the frame status, or it can be disabled. The user can also make the LED flash to help locate the frame.



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Security Features

Users now have the ability to disable network services in order to make the MFC more secure. Users can disable SSH access, SLP announcements, SNMP, and block upgrades.

New Parameter: Frame Power Capability

A new reserved OID has been added (0xFE0F) to advertise the frame's power capabilities to cards installed in the system. openGear card developers should refer to the openGear development guide for details.

Known Issues

After removing and replacing the LED bar when servicing the air filter, the LED will not turn on until the fan door is opened and closed.

Resolved Issues

61077 – SNMP v1 Traps

SNMP v1 trap messages now correctly report the agent-addr field.

Version 2.92 released 2016-03-17

This release adds the ability to configure the link speed between the MFC Ethernet switch and the card slots.

Known Issues

The Port Status may erroneously report Link Up when it is not configured for the proper speed.

Version 2.91 released 2015-08-19

This is a consolidated release the family of MFC-xxx-N controllers. It includes several corrections for the MFC-OG3-N and MFC-8322-N. All of these fixes, including previous ones from v2.7x and v2.8x, have been back-ported to the older MFC-8320-N and MFC-8310-N controllers.



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The most significant corrections include: 39332 (Loss of DashBoard communication), 39360 (Devices in tree view cannot be opened), 25807 (Loss of NTP is not reported), and 38382 (DataSafe failing with 1024 or more OIDs). For details on these fixes, please see the descriptions under version 2.7x and 2.8x below.

Feature enhancements

Fan speed reporting

There has been a change to fan speed reporting via reserved OID 0xFF0D. Card developers should refer to the openGear development guide for details. This functionality was added for MFC-OG3-N and MFC-8322-N and is now also present on the MFC-8320-N and MFC-8310-N controllers.

Resolved issues

46583 – DataSafe upload failure for specific file sizes

When uploading a previously saved configuration (.OGD file), there is a 1 in 256 chance that DataSafe file upload may fail, so the card will not be restored to the saved settings. This was caused by a miscalculation of the number of packets to be exchanged. This issue has been corrected for all MFC controllers.

47937 – Audio alarm may not function on MFC-OG3-N

The audio alarm could intermittently become disabled even when the jumper was correctly positioned to enable the alarm. This issue affected the MFC-OG3-N controller only, and has been corrected.

48981 – Holding alarm mute button does not clear DataSafe

The user manual explains that when a DataSafe mismatch error occurs, the condition can be cleared either by clicking the **Update** button in DashBoard, or by holding the Alarm Mute button for 5 seconds. On the DFR-OG3 frame (eg. MFC-OG3-N and MFC-8322-N controllers) the alarm mute button on the front door did not work as described. This has been corrected in v2.91 software.

49047 – SNMP access to IpAddress is endian-swapped

On the MFC-OG3-N controller, the SNMP agent returned incorrect values for parameters encoded as IpAddress data types. This has been corrected for get and set operations on individual and array parameters.



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Known issues

DBLite web applet

The DashBoard-Lite web applet may not run on modern systems with Java 7. Various security warnings occur, and often prevent the app from running. Note that DB-Lite app has not been updated in some time, and has fallen far behind DashBoard in terms of feature set. The DB-Lite applet may be removed in future versions.

Version 2.88 released 2014-02-26

This release improves gigabit switch performance and corrects several other minor bugs. There are no new features added.

Corrections since v2.87

39456 – Gigabit switch performance

The gigabit switch was found to forward packets unnecessarily, resulting in poor performance, particularly under stress-test. The configuration of the gigabit switch has been corrected.

39619 – Gigabit switch reset sequence

A logic error in the gigabit switch initialization has been corrected. This issue could prevent the switch from being initialized during soft-reboot of the MFC-OG3-N.

39470 – LCD behavior in DHCP mode

When using DHCP, prior to obtaining an IP address, the LCD would show 255.255.255.255, rather than 0.0.0.0 as documented in the manual. This has been corrected.

Known issues

Unchanged from previous release.

Version 2.87 released 2013-12-11

This release corrects several issues found during testing. There are no new features added.



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Corrections since v2.86

39269 – OK/Alarm LED not behaving correctly

The OK/Alarm LED did not behave as documented in the manual. This has been corrected, it now works as in the MFC-8322-N.

39332 – Loss of DashBoard communication

A race condition in the processing of messages from DashBoard has been identified and corrected.

39360 – Devices in tree view cannot be opened

A condition in which devices appear in the DashBoard tree view, but cannot be opened, has been corrected.

39362 – Momentary communication interruptions

If the NTP server is left unconfigured (eg. 0.0.0.0), then MFC communication to DashBoard is interrupted for three seconds out of every ten seconds. This has been corrected.

Known issues

Unchanged from previous release.

Version 2.86 released 2013-12-09

Initial release of the MFC-OG3-N network control card for the OG3-FR frame.

Features

The MFC-OG3-N is functionally equivalent to the MFC-8322-N controller.

DashBoard support

The MFC-OG3-N bridges traffic between the CAN bus and Ethernet, allowing the use of the DashBoard Control System. This enables control and monitoring of devices in the frame.



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User Rights Management

The MFC-OG3-N supports User Rights Management (URM) through DashBoard, making it possible to limit access to devices in the frame. By default, a two-user scheme (Administrator and User) is offered.

Gigabit Ethernet

The MFC-OG3-N offers gigabit ethernet to all 20 slots in the OG3-FR frame. Link status for each slot can be monitored through DashBoard.

DataSafe

DataSafe monitors card parameters for each slot, and restores the parameters if a card is hot-swapped with an identical card. This feature is disabled by default, but can be enabled on a per-slot basis using on the DataSafe tab in the MFC Device View.

Configuration save and restore

Card configuration parameters can be stored to a file, and can be restored from files to one or more active cards. It is also possible to copy configuration between cards.

Slot renaming

Cards can be renamed at will, using the Setup tab in the MFC Device View.

Optional SNMP monitoring and control

The MFC-OG3-N offers optional SNMP (v1 and v2c) monitoring and control of devices in the frame.

Corrections since v2.78

The following issues, present on MFC-8322-N, have been corrected in the MFC-OG3-N.

25807 – Loss of NTP is not reported

The MFC controller now correctly reports its Network Time Protocol (NTP) status to other devices in the frame. Previously, if the controller managed to synchronize, but then lost connection to NTP, it would continue to report successful lock status.



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Known issues

The MFC-OG3-N is based on the earlier MFC-8322-N and MFC-83x0-N controllers, and inherits many of the known issues from those products.

Software upgrades

Normal procedure

The MFC controller is upgraded through the DashBoard Control System, in the same manner as other openGear® devices. To obtain the most recent software upgrade package, please contact Ross Video Technical Support.

1. In DashBoard, double click on the frame to open its Device page.
2. Click the Upload button at the bottom of the Device page.
3. Browse to the upgrade file (MFC-OG3-vX_YY.bin).
4. Click the Finish button to begin the upgrade.
5. When the upload is finished, DashBoard will prompt to reboot the card.
6. After the MFC-OG3-N controller has rebooted, the upgrade is completed.

Upgrade via web browser

Upgrades can be performed using a web browser. This is intended as a diagnostic tool in case of problems with the normal DashBoard upgrade procedure. This method should only be used when so advised by Ross Technical Support.

Using a web browser, go to `http://IPADDR/cgi-bin/upgrade`, where IPADDR is the current IP address of the MFC controller. Use the normal upgrade file MFC-OG3-vX_YY.bin.

Recovery via micro-SD card

Should the MFC-OG3-N fail to boot (eg. the status LED remains red), it is possible to recover by using a micro-SD card. Note that Ross Video does not supply the micro-SD card.

Obtain a micro-SD card, and ensure that it is formatted with FAT filesystem. Contact Ross Video Technical support to obtain a recovery image (MFC-OG3-vX_YY-recovery.zip). Unzip the recovery image on to the micro-SD card—this will produce four files on the micro-SD card.



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Insert the micro-SD card into the MFC-OG3-N socket. Press the Alarm Mute button while turning on the power to the frame. The MFC-OG3-N will boot from the SD card, and normal LED behavior be observed.

Once the card is running, perform a standard software upgrade via DashBoard, as described above. Once this upgrade is complete, power down the MFC-OG3-N and remove the micro-SD card.