

FLIR NEUTRINO LC RELEASE NOTIFICATION

Release Date: 06/01/2020

Release Versions: Neutrino LC Release 1.2 is a general-purpose software release. Release 1.2 consists of the following versions:

Software v2.1.24181

SDK v2.1.24181

Neutrino App v1.2.8

Change Summary

The following new features have been included in Release 1.2 software, relative to Release 1.1 software:

- **Spatial Filter (DBMF)** The purpose of the spatial filter is to reduce fixed pattern noise and defective pixels by identifying and replacing anomalous pixels in run-time operation. The spatial filter replaces both the spatial pattern noise reduction (SPNR) and dynamic defect replacement (DDR) algorithms in prior releases.
- **Pixel Binning (BIN)** - The pixel binning module is intended to increase signal to noise ratio, but the algorithm comes with a trade of reducing effective resolution. The factory default is disabled.
- **Linear AGC Modes** – Auto Bright, Auto Linear, and Manual AGC modes have been included to supplement the existing histogram equalization AGC modes.
- **Invert/Revert Bad Pixel Handling** – The bad pixel replacement inverts/reverts the bad pixel map depending on the user defined state. Previous releases required special calibration steps for invert/revert mode.
- **Image Valid Flag** – This new status flag can be queried query via CCI or telemetry to determine if cooldown has been reached and the camera is in the imaging state.
- **Programmable Pixel Clock** – the pixel clock (cmos_pclk) is now user programmable with the factory default at 27.0MHz. In previous releases, setting the averager to enabled automatically updated the pixel clock to 13.5MHz, but this must be done manually with the new user parameter.

See document number 102-2020-40 Neutrino LC Engineering Datasheet rev300 for further details of each feature.

The following issues have been resolved in Release 1.2 software, relative to Release 1.1 software:

- Win10 USB video compatibility issue prevented USB video connection after uninstalling/re-installing USB port hardware, a workaround is no longer required.
- Frozen frames were output for three frames after the FFC in progress flag went low, now imagery and FFC status flag are in alignment.
- Two APIs were required to switch NUC tables, now only bosonSetTableNumber() is required.

Issue Summary

The following issues remain in Release 1.2:

- Reboot via software command (bosonReboot()) at cold temperature causes the camera to not return with comm/video. The recommended work-around is to perform hardware power cycles at cold temperature.
- FFC in progress status precedes frozen video by one frame for FFCs.

Field Upgrade

Release 1.2 software is field upgradeable. To upgrade software on older units with Release 1.0 (v2.0.17820) or Release 1.1 (v2.1.20626) software: open the Neutrino LC App, select "Port" in the drop down to connect, once connected go to the "Diagnostic Tools" tab -> "Diagnostic Control" pane -> "Upload Camera SW" button, a pop-up file browser will appear, browse to the directory of the Release 1.2 software, select the software file (fpld file type), select "Open", select "OK" when the confirmation pop-up appears.

102-2020-43, Neutrino LC Release Notification, Release 1.2

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