

Affected Products Pike F-032C, Pike F-100C, Pike F-421C, Pike F-1100C, Pike F-1600C

PCN Title ON Semiconductor color sensors CFA material change Pike

PCN No. PCR-2015-11-06 **PCN Issue date** 2017-January-11

Contact <https://www.alliedvision.com/en/meta-header/contact-us.html>

Type of change

- | | |
|---|--|
| <input type="checkbox"/> Regulatory / Compliance | <input type="checkbox"/> Firmware Specification |
| <input type="checkbox"/> Mechanical Specification | <input type="checkbox"/> Accessories Specification |
| <input type="checkbox"/> Electrical Specification | <input type="checkbox"/> DISC (Discontinued) |
| <input type="checkbox"/> Optical Specification | <input checked="" type="checkbox"/> Component Change |

Affected item(s) / item number(s)

Pike F-032C (fiber) cameras (base order code: E0000845 / E0000885) with KAI-0340

Pike F-100C (fiber) cameras (base order code: E0000870 / E0000887) with KAI-1020

Pike F-421C (fiber) cameras (base order code: E0000883 / E0000893) with KAI-04022

Pike F-1100C (fiber) cameras (base order code: E0001291 / E0001306) with KAI-11002

Pike F-1600C (fiber) cameras (base order code: E0001293 / E0001308) with KAI-16000

In addition, all other color model types that have been derived from Allied Vision's modular concept for Pike cameras are affected by this change.

Reason for change

ON Semiconductor as the manufacturer of KAI-XXXXX sensors discontinued most their color sensors which use Gen 1 Color Filter Array (CFA) materials. New Gen 2 CFA materials have been adopted by ON Semiconductor for these sensors to ensure their continued availability.

Change description

KAI-xxxxx color sensors integrated into the above-named camera models will be replaced by equivalent sensor with new CFA material. Consequently, the part number changes from KAI-XXXXX-C... to KAI-XXXXX-F...; for example: KAI-1020-CBA-FD-BA changes to KAI-1020-FBA-FD-BA.

KAI-XXXXX-F sensors with Gen 2 CFA material show small changes in the spectral characteristics. See the QE plots for each sensor showing the differences between Gen 1 and Gen 2 CFA materials.

Tests in our lab have shown that the differences between sensors with CFA Gen 1 and Gen 2 materials can be roughly balanced by using the WhiteBalance feature. For more exact color reproduction, an application specific Color Correction Matrix, using the build in Color correction feature can be helpful. A 100% exact reproduction of Gen 1 color is likely not possible.

End of life schedule

Customers are encouraged to convert to products using the new (Gen 2) CFA materials as soon as possible. While products using the current (Gen 1) CFA materials will be available for the immediate future, they will be phased out over time.

Customer action request

Please verify the potential influence of the CFA material change in your camera application.

Possible successor

The order codes for the affected Pike cameras do not change.

The switch to sensors with Gen 2 CFA material will be conducted step by step, beginning in January 2017.

Please note:

Pike F-210C cameras have already been discontinued. The corresponding Product Change Notification can be found [here](#).

The information provided in this PCN is subject to change without notice.

For the latest version of this document, please visit the Allied Vision [website](#).

Support:

support@alliedvision.com

General inquiries:

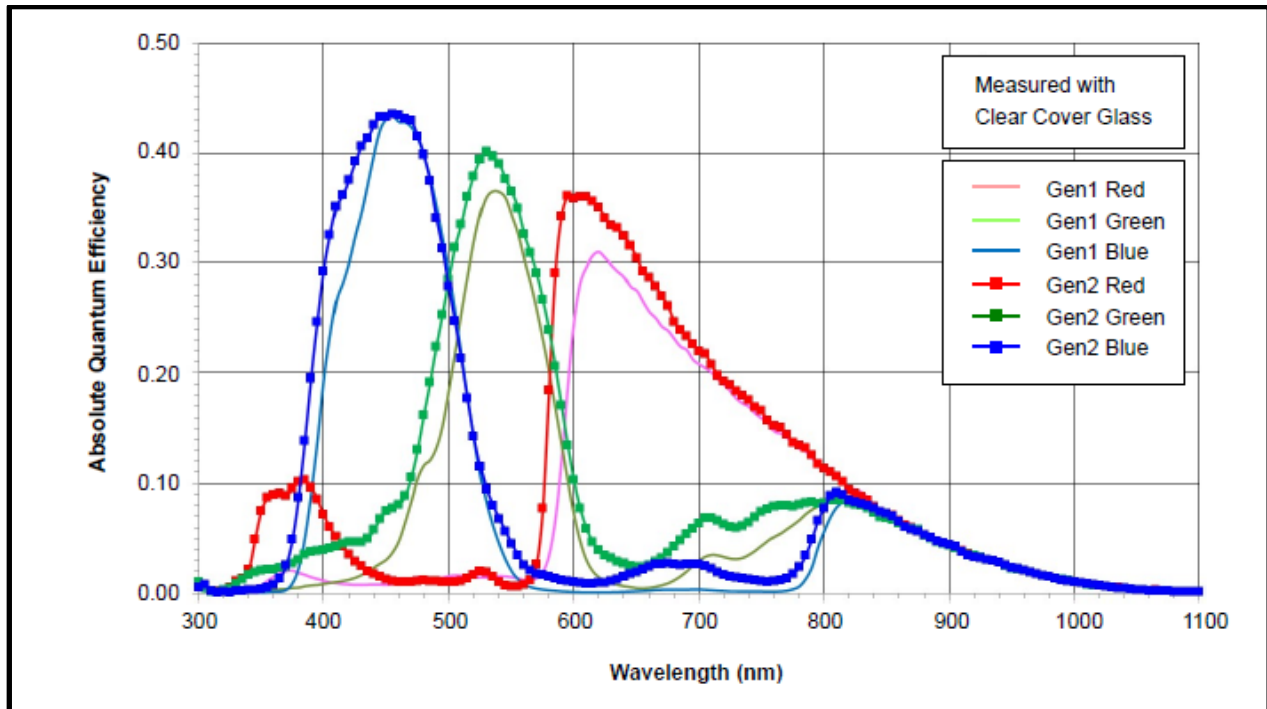
Please use our [contact form](#)

Annex – Supplementary Information

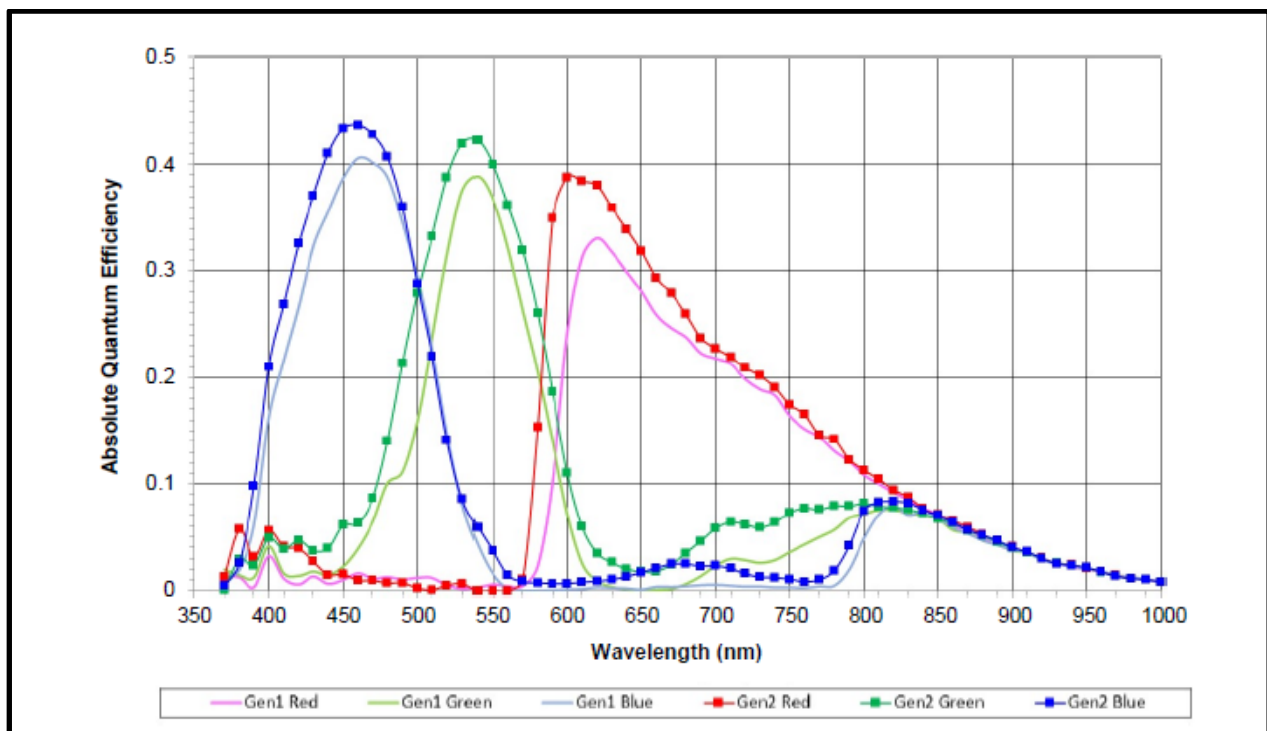
The following plots compare the absolute quantum efficiency curves for Gen 1 and Gen 2 CFA materials for each affected Allied Vision camera model.

Note: The plots are taken from ON Semiconductor's sensor data sheets.

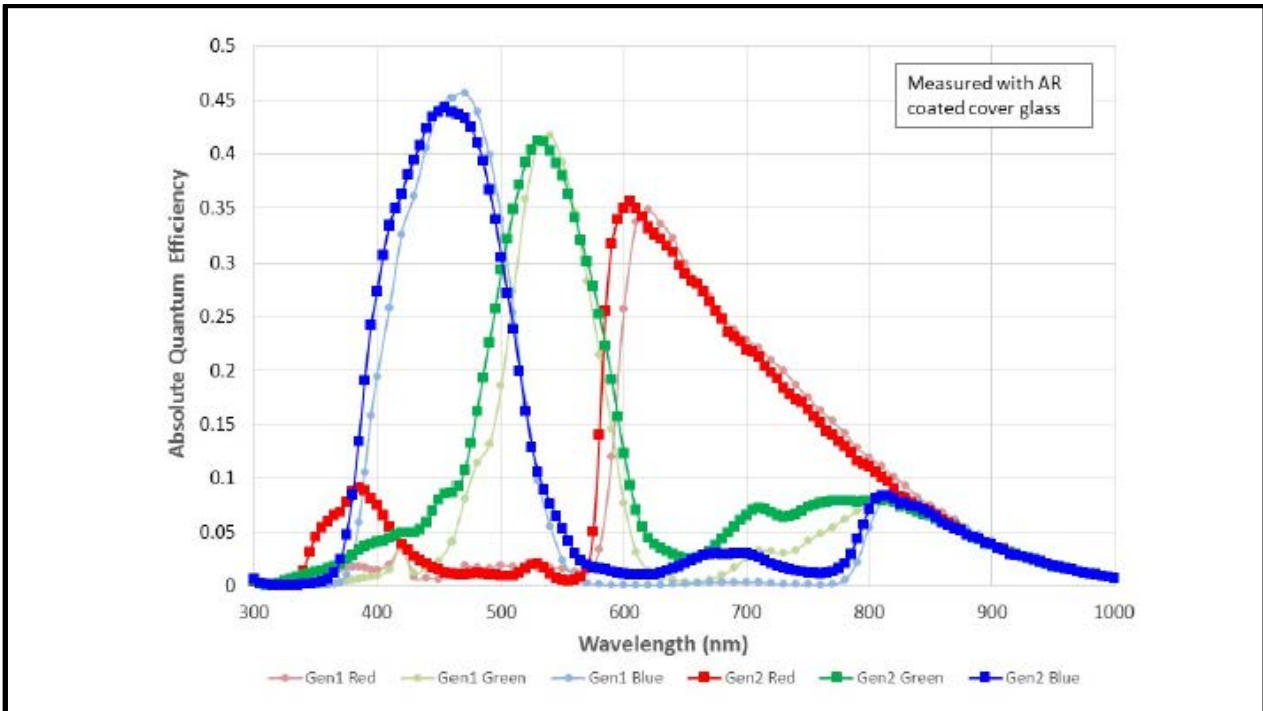
Pike F-032C – KAI-0340



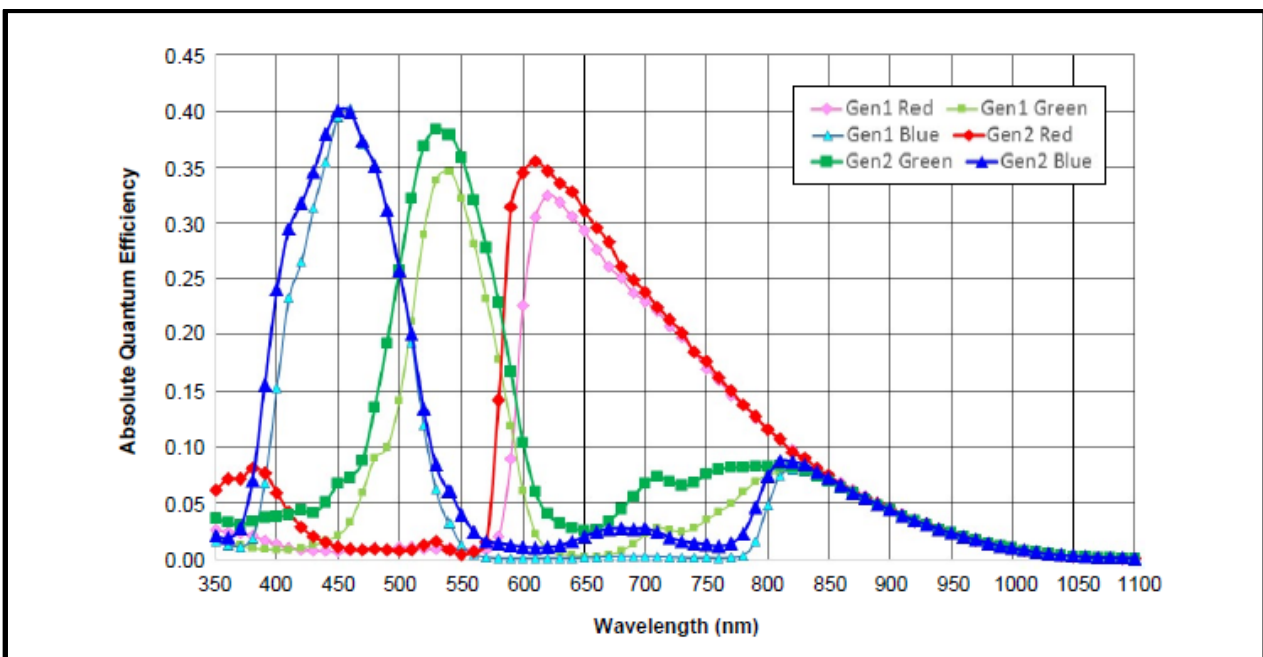
Pike F-100C – KAI-1020



Pike F-421C – KAI-04022



Pike F-1100C – KAI-11002



Pike F-1600C – KAI-16000

