

**PCN Title** ON Semiconductor color sensor CFA material change (Prosilica GT, GX, GE)  
 Prosilica GT1660C, GT1910C, GT2300C, GT4905C, GT4907C, GT6600C

**Affected Products** Prosilica GX1050, GX1660C, GX1910C, GX2300C, GX3300C  
 Prosilica GE680C, GE1050, GE1650C, GE1660C, GE1910C, GE2040C, GE4000C, GE4900C

**PCN Number** PCR-2015-11-06, PCRREVB-350, **PCN Issue date** 2017-February-10  
 PCRREVB-355

**Contact** [Inside Sales Team](#)

#### Change Type

- |   |  |
|---|--|
| <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"/> Discontinued                |
| <input type="checkbox"/> Optical Specification    | <input checked="" type="checkbox"/> Component Change |

#### Affected Products

**Prosilica GT1660C** cameras (base order code: 02-2617A) with KAI-02050 sensor  
**Prosilica GT1910C** cameras (base order code: 02-2619A) with KAI-02150 sensor  
**Prosilica GT2300C** cameras (base order code: 02-2621A) with KAI-04050 sensor  
**Prosilica GT3300C** cameras (base order code: 02-2623A) with KAI-08050 sensor  
**Prosilica GT4905C** cameras (base order code: 02-2635B or 02-2635D) with KAI-16050 sensor  
**Prosilica GT4907C** cameras (base order code: 02-2637B or 02-2637D) with KAI-16070 sensor  
**Prosilica GT6600C** cameras base order code: 02-2631B or 02-2631D) with KAI-29050 sensor

**Prosilica GX1050C** cameras (base order code: 02-2401B) with KAI-01050 sensor  
**Prosilica GX1660C** cameras (base order code: 02-2403B) with KAI-02050 sensor  
**Prosilica GX1910C** cameras (base order code: 02-2405A) with KAI-02150 sensor  
**Prosilica GX2300C** cameras (base order code: 02-2407A or 02-2407B) with KAI-04050 sensor  
**Prosilica GX3300C** cameras base order code: 02-2409B) with KAI-08050 sensor

**Prosilica GE680C** cameras (base order code: 02-2021A or 02-2021C) with KAI-0340 sensor  
**Prosilica GE1050C** cameras (base order code: 02-2071C) with KAI-01050 sensor  
**Prosilica GE1650C** cameras (base order code: 02-2076A or 02-2076C) with KAI-2020 sensor  
**Prosilica GE1660C** cameras (base order code: 02-2078A or 02-2078C) with KAI-02050 sensor  
**Prosilica GE1910C** cameras (base order code: 02-2083A or 02-2083C) with KAI-02150 sensor  
**Prosilica GE2040C** cameras (base order code: 02-2061A or 02-2061C) with KAI-04022 sensor  
**Prosilica GE4000C** cameras (base order code: 02-2091C) with KAI-11002 sensor  
**Prosilica GE4900C** cameras (base order code: 02-2096C) with KAI-16000 sensor

In addition, all other color model types that have been derived from Allied Vision's modular concept for Prosilica GT cameras are affected from this change, e.g.: 02-2617A-01 - Prosilica GT1910C color with CS-Mount instead of the default C-Mount.

#### Reason for Change

ON Semiconductor as the manufacturer of KAI-xxxxx sensors discontinued the majority of 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-xxxx color sensors integrated into the camera models listed above will be replaced by equivalent sensor with new CFA material. Consequently The sensor type changes from KAI-xxxx-C... to KAI-xxxx-F...; for example: KAI-1050-CBA-JD-BA changes to KAI-1050-FBA-JD-BA.

KAI-xxxx-F sensors with Gen 2 CFA material show small changes in the spectral characteristics. As a reference please find at the end of this document typical QE diagrams 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.

Our application note, "[White Balance for Allied Vision GigE Cameras](#)," gives more information on using this feature.

An application specific Color Correction Matrix, using the built-in color correction feature, can be helpful for a more exact color reproduction. 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 of some camera models will be available for the immediate future, they will be phased out over time. Please see the table below for cameras models that have already switched over to the Gen 2 CFA sensors.

**Customer action request**

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

Cameras with the Gen 1 CFA sensors sent back for RMA purposes may not be replaced with a Gen 1 CFA sensor if a sensor replacement is required. This will depend on the number of sensors Allied Vision has stock of a specific sensor model.

**Possible successor**

The item numbers for the affected Prosilica GT, GX, and GE cameras do not change.

The switch to sensors with new (Gen 2) CFA material has already been completed for some models, while the rest will happen once the existing stock of Gen 1 sensors is used up.

Please find on the following page a table with the status and shipping date from which a corresponding model type is equipped with the new (Gen 2) CFA sensor version.

**Table 1 - The status and shipping date of new CFA material sensor switch for each affected model**

Model Type	Item Number*	Status	Shipping Date
Prosilica GT1660C	02-2617A	Completed	March 2016
Prosilica GT1910C	02-2619A	Pending	t.b.d.
Prosilica GT2300C	02-2621A	Completed	March 2016
Prosilica GT3300C	02-2623A	Completed	January 2016
Prosilica GT4905C	02-2635B or 02-2635D	Pending	t.b.d.
Prosilica GT4907C	02-2637B or 02-2637D	Completed	February 2016
Prosilica GT6600C	02-2631B or 02-2631D	Completed	March 2016
Prosilica GX1050C	02-2401B	Pending	t.b.d.
Prosilica GX1660C	02-2403B	Completed	March 2016
Prosilica GX1910C	02-2405A	Pending	t.b.d.
Prosilica GX2300C	02-2407A or 02-2407B	Completed	March 2016
Prosilica GX3300C	02-2409B	Completed	January 2016
Prosilica GE680C	02-2021A or 02-2021C	Pending	t.b.d.
Prosilica GE1050C	02-2071C	Pending	t.b.d.
Prosilica GE1650C	02-2076A or 02-2076C	Pending	t.b.d.
Prosilica GE1660C	02-2078A or 02-2078C	Completed	March 2016
Prosilica GE1910C	02-2083A or 02-2083C	Pending	t.b.d.
Prosilica GE2040C	02-2061A or 02-2061C	Completed	October 2016
Prosilica GE4000C	02-2091C	Pending	t.b.d.
Prosilica GE4900C	02-2096C	Pending	t.b.d.

\* And derived models

The information provided in this PCN notification are subject to change without notice.  
 For the latest version of this document, please visit the Allied Vision [website](#).

**Support:**

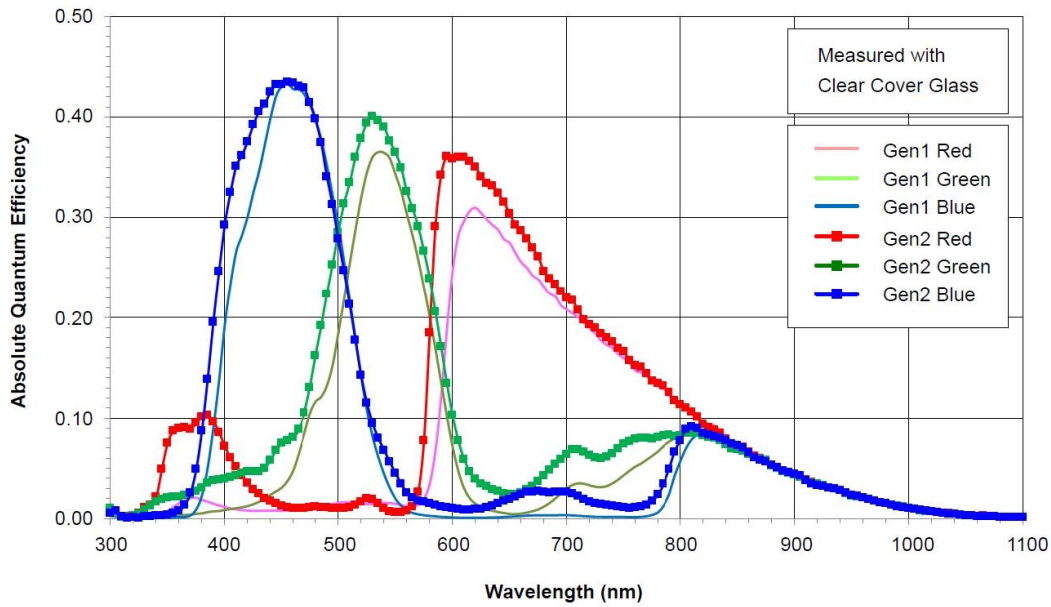
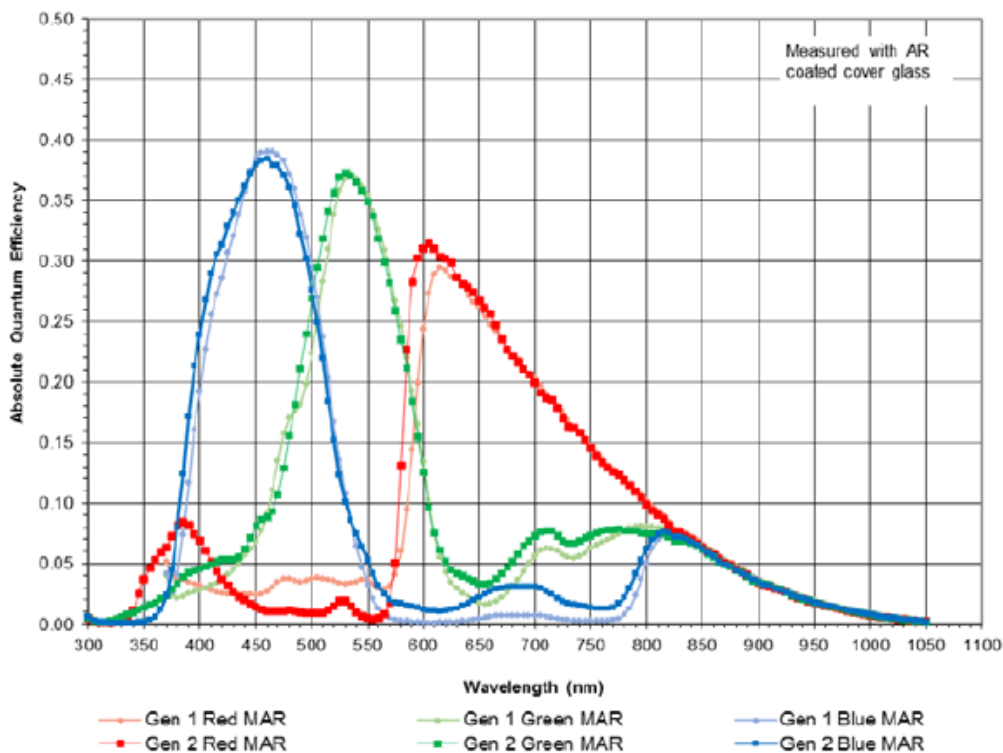
In case of technical questions please contact our [Support Team](#)

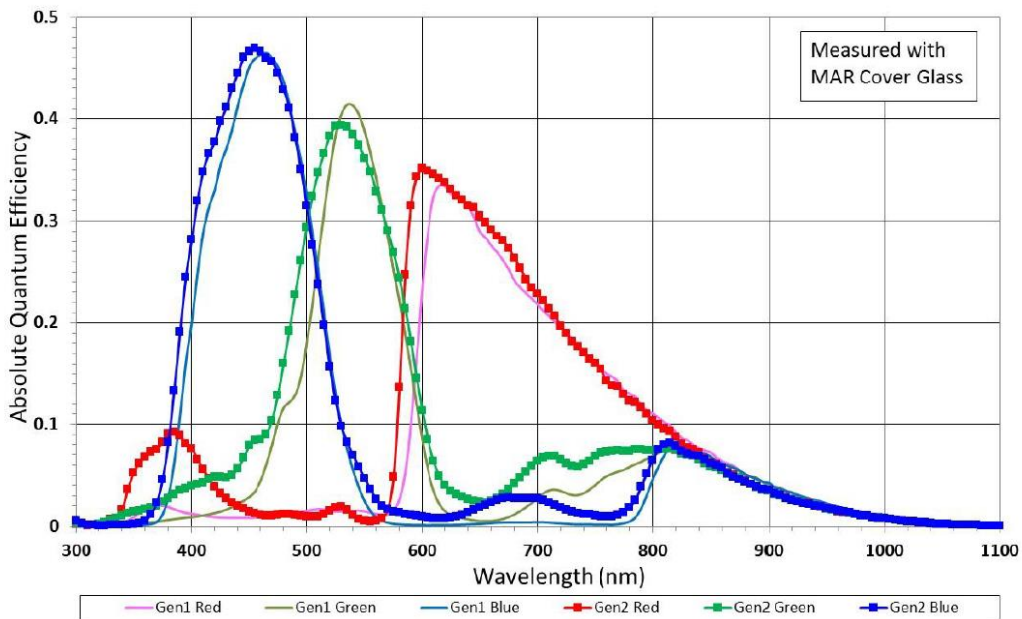
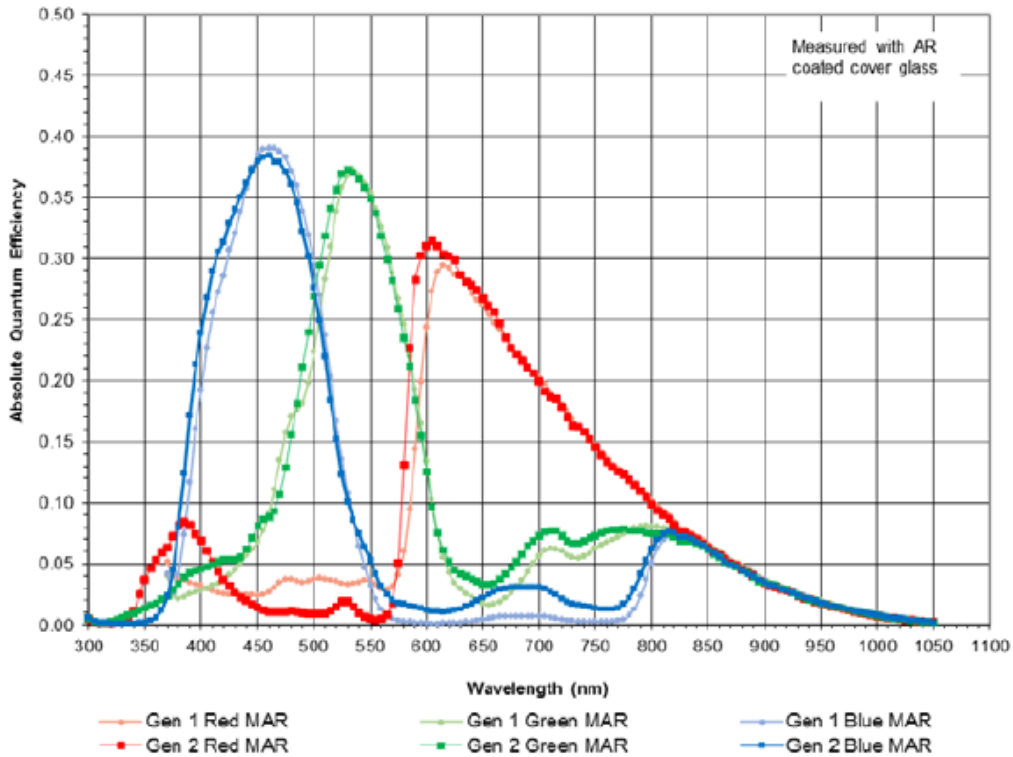
**General inquiries:**

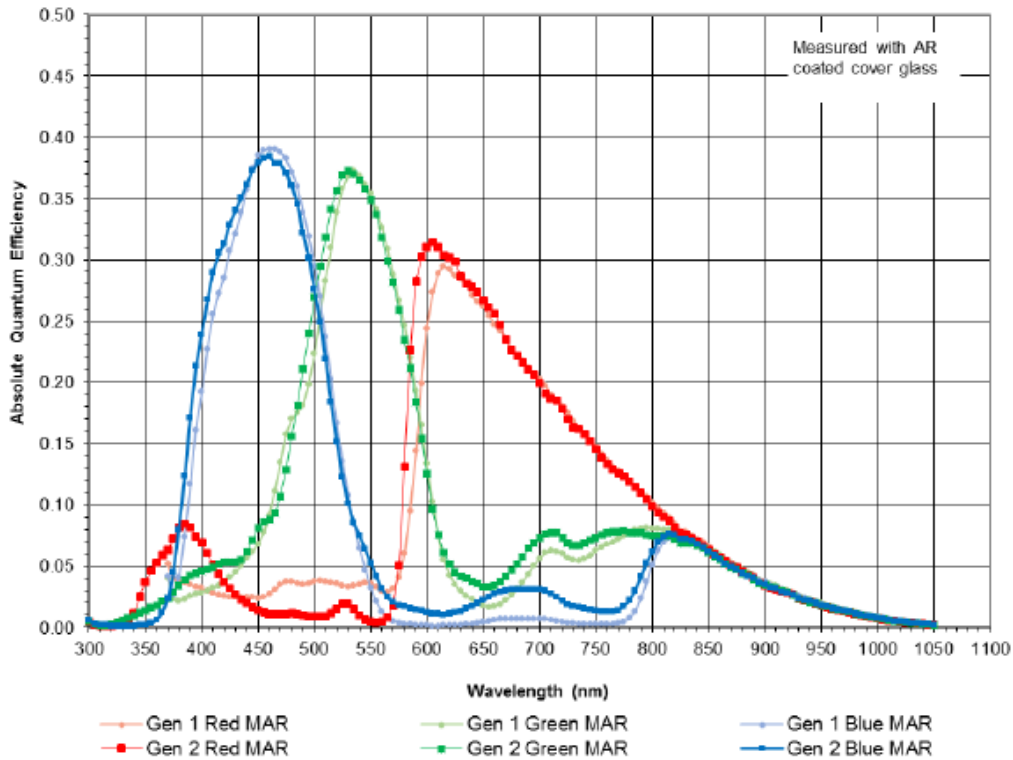
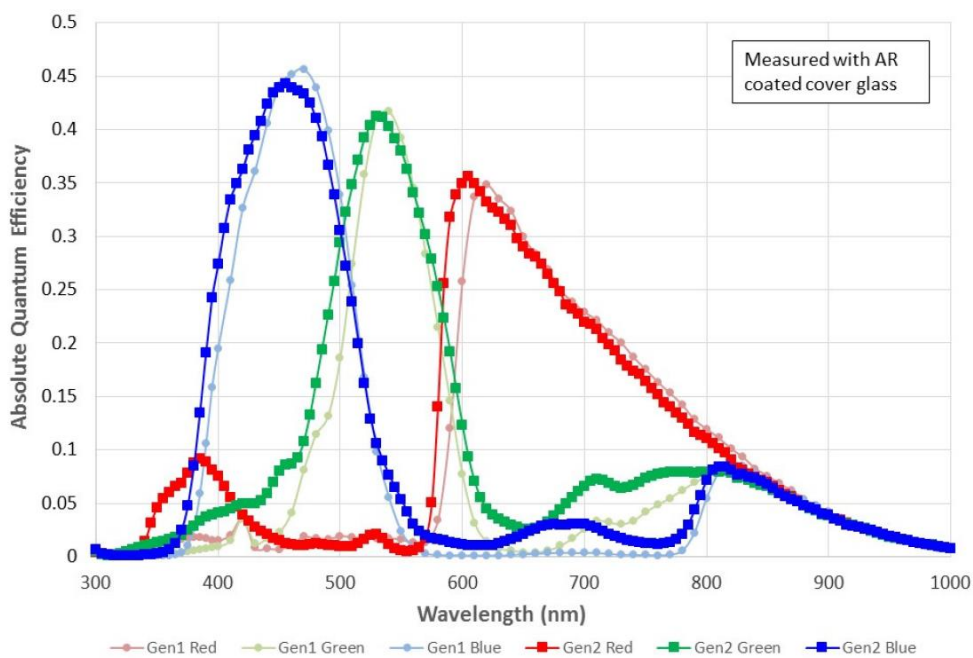
Please contact our [Inside Sales Team](#)

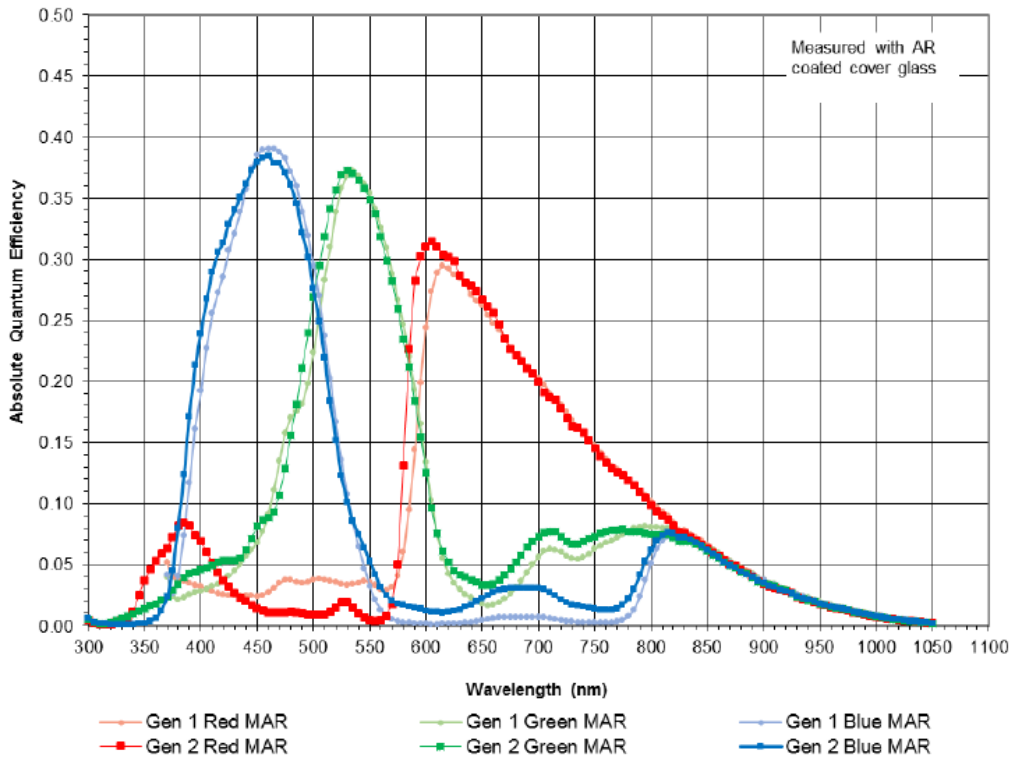
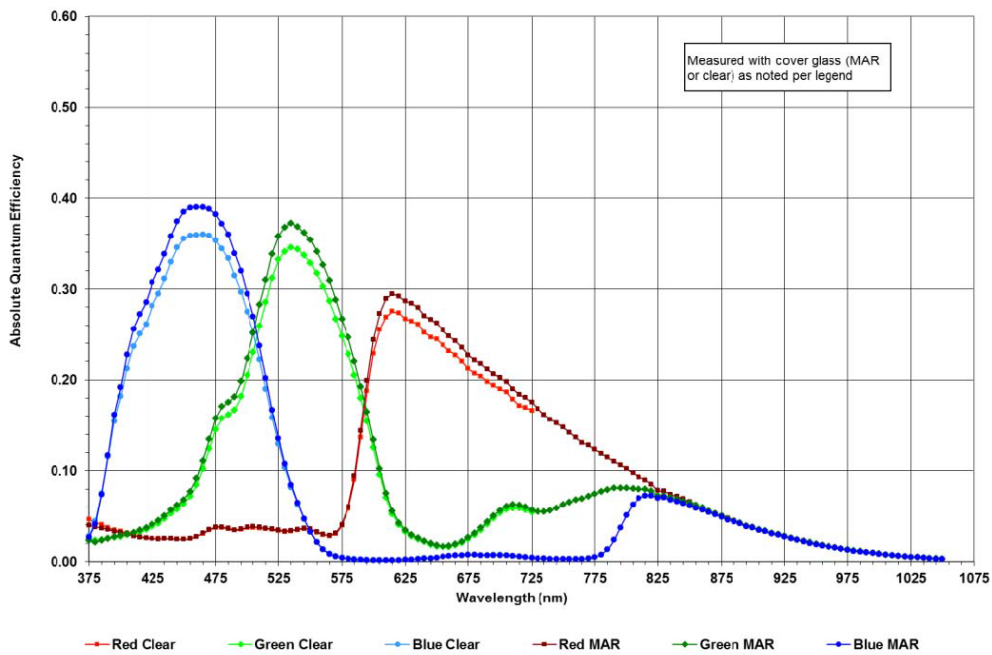
**Annex – Absolute QE comparison plots**

The following plots compare the absolute quantum efficiency curves for Gen 1 and Gen 2 CFA material sensors for each affected Allied Vision camera model. These plots are taken from the ON Semiconductor sensor data sheets.

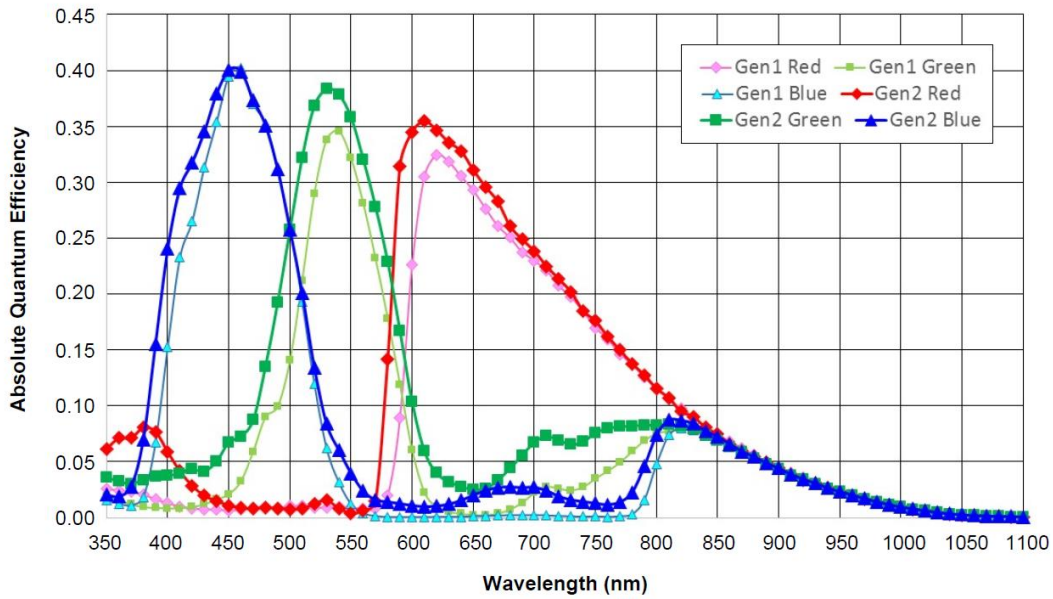
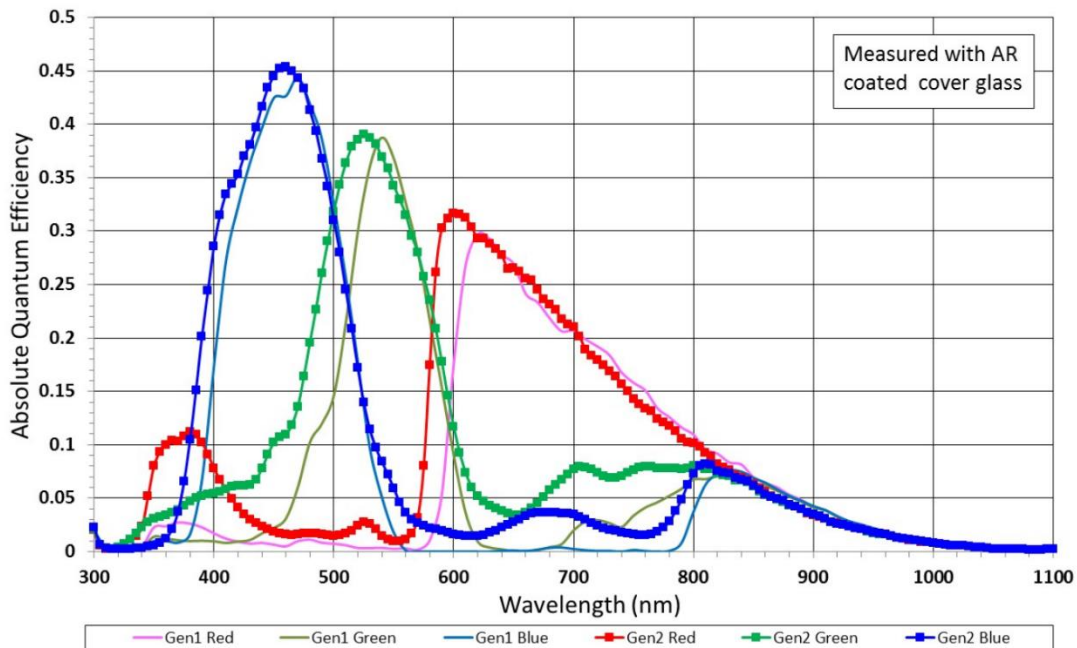
**KAI-0340 (Prosilica GE680C)**

**KAI-01050 (Prosilica GX1050C, GE1050C)**


**KAI-2020 (Prosilica GE1650)**

**KAI-02050 (Prosilica GT1660C, GX1660C, GE1660C)**


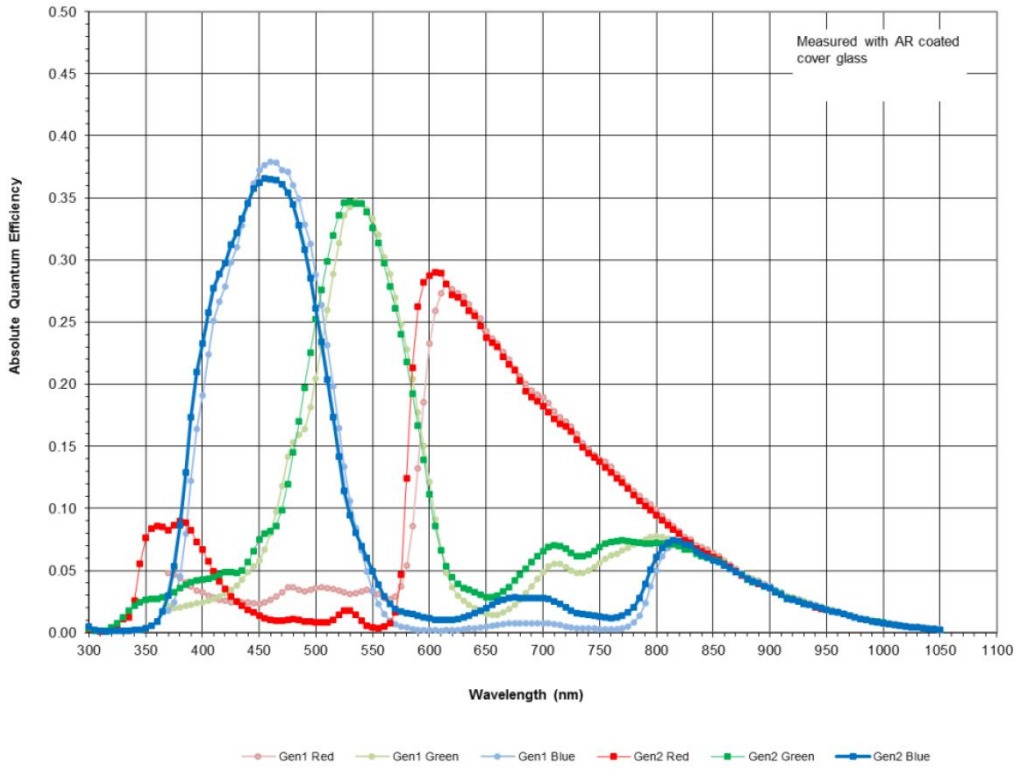
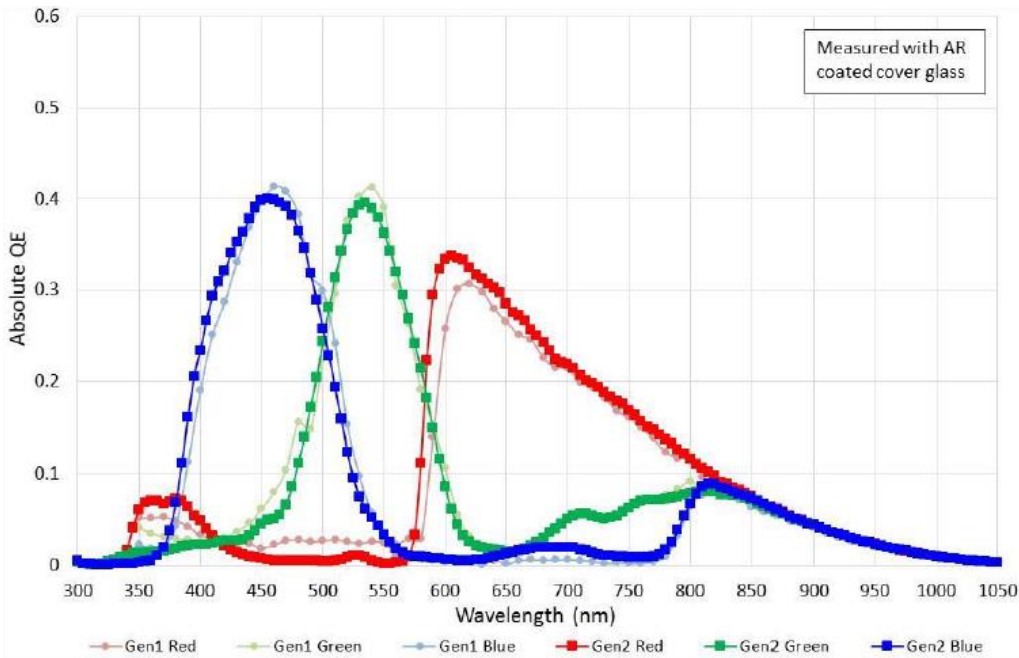
**KAI-02150 (Prosilica GT1910C, GX1910C, GE1910C)**

**KAI-04022 (Prosilica GE2040C)**


**KAI-04050 (Prosilica GT2300C, GX2300C)**

**KAI-08050 (Prosilica GT3300C, GX3300C)**




**KAI-11002 (Prosilica GE4000C)**

**KAI-16000 (Prosilica GE4900C)**




**KAI-16050 (Prosilica GT4905C)**

**KAI-16070 (Prosilica GT4907C)**


**KAI-29050 (Prosilica GT6600C, GX6600C)**
