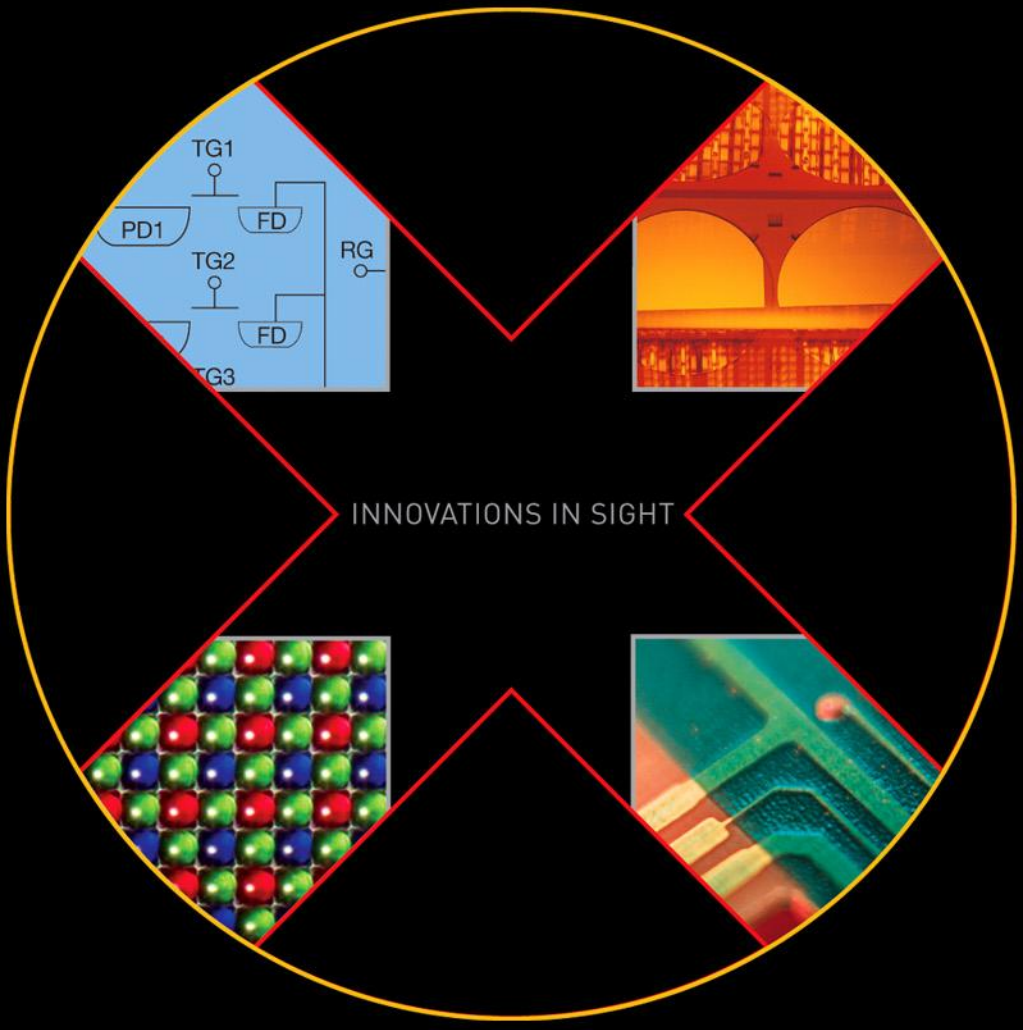
APPLICATION NOTE

Revision 6.0 MTD/PS-0892

September 16, 2011



KODAK IMAGE SENSOR NAMING CONVENTION

Kodak
Image Sensor Solutions

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Image Sensor Solutions

INTRODUCTION

KODAK Image Sensor products are named using an eight-part convention that uniquely identifies the specifics of the part, as summarized in Figure 1.

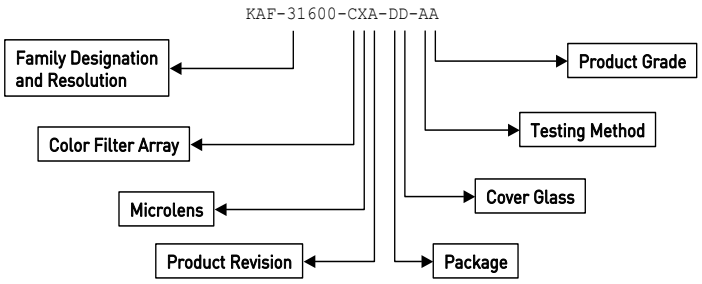

Figure 1: Naming Convention for KODAK Image Sensor products.

Each component of this naming convention is described and detailed below.

FAMILY DESIGNATION AND RESOLUTION

The first three letters of the product name identify the overall technology associated with the part, according to the following table:

Designation	Description
KAF	Full Frame CCD
KAI	Interline CCD
KLI	Linear CCD
KSC	Support Chip
KAC	CMOS
KAT	TDI CCD

A five-digit number follows this family designation. The first three digits indicate the total resolution of the sensor, measured in units of 100,000 pixels – a sensor with 31.6 million pixels would be identified as 316xx. The last two digits are used to uniquely identify products that share a common total resolution – while the KAF-16001 and KAF-16002 both have 16.0 million pixels, they are different products (as indicated by the 01 and 02 designations in the product names).

While this first section of the product name – consisting of the family designation and resolution – is often used to identify a family of products based on a common sensor base, this description is not sufficient to uniquely identify a particular version of this sensor for ordering purposes.

The full product name, using each of the product codes defined in this document, should be used to ensure that the specific type or version of this part is properly ordered.

COLOR FILTER ARRAY

Used to identify the color filter array (if any) used on the product. Note that not all options are available for every sensor – please refer to individual product data sheets for a full listing of the CFA options available for a given product.

Designation	Description
A	No CFA (Monochrome)
B	Pigment, Bayer CMY
C	Pigment, Bayer RGB
D	Pigment, Linear RGB
E	3G Stagger
F	Reserved
G	Striped RGRB
H	RB Checkerboard
J	Hybrid Dichroic
L	RGB and Mono
M	Mono with RB surround
N	Pigment, Bayer RGB, shorter red wavelength
P	KODAK TRUESENSE CFA pattern A
X	Special

MICROLENS

Used to identify the microlens (if any) used on the product. Note that not all options are available for every sensor – please refer to individual product data sheets for a full listing of the microlens options available for a given product.

Designation	Description
A	No microlenses
B	Telecentric microlenses
C	Cylindrical microlenses
X	Special

PRODUCT REVISION

Used to identify the silicon or process revision of the part. "A" corresponds to the first revision, "B" to the second revision, etc.

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PACKAGE

Used to identify the package used on the product. Note that not all options are available for every sensor – please refer to individual product data sheets for a full listing of the package options available for a given product.

Designation	Description
A	Wafer form (no package)
B	Die form (no package)
C	Cerdip, Sidebrazed pins
D	Cerdip, Sidebrazed pins, CuW
E	Cerdip, leadframe
F	CLCC
G	PLCC
H	Plastic DIP
J	PGA
K	PGA, CuW base
L	QFP
M	CSP
N	Bare Die, reconstituted wafer
P	Polyimide substrate
Q	Aluminum Nitride substrate
R	pLLP
X	Special

COVER GLASS

Used to identify the cover glass used on the product. Note that not all options are available for every sensor – please refer to individual product data sheets for a full listing of the cover glass options available for a given product.

Designation	Description
A	No Glass
B	Clear, no coatings
C	Clear, AR coated 1 side
D	Clear, AR coated 2 sides
E	Clear, AR coated side 1, IR coated side 2
F	Quartz, no coatings
G	Plastic, no coatings
H	IR absorbing, AR coated, 2 sides
J	Clear, AR coated 2 sides, with light shield
K	Quartz, AR coated 2 sides
P	Clear, no coatings (taped)
Q	Clear, AR coated 1 side (taped)
R	Clear, AR coated 2 sides (taped)
S	Quartz, no coatings (taped)
X	Special

TESTING METHOD

Used to identify the testing method used for the product. Note that not all options are available for every sensor – please refer to individual product data sheets for a full listing of the testing options available for a given product.

Designation	Description
A	Standard
B	Standard with defect map
C	Non-standard
D	Non-standard with defect map
E	Low temperature
F	Low temperature with defect map
G	Customer specific
H	Standard with Special Visual
X	Special

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PRODUCT GRADE

Used to identify the level of cosmetic defects in the product. For parts available in more than one grade, numbers are used to signify differing levels of cosmetic defects, with Grade 0 denoting the highest grade (fewest cosmetic defects). Parts available in a single grade only are denoted as Standard. Additional product grades are available for evaluation purposes, as defined in the table below.

Note that not all options are available for every sensor – please refer to individual product data sheets for a full listing of the product grade options available for a given product.

Designation	Description
0	Highest grade (fewest cosmetic defects)
1	Cosmetic specs relaxed relative to Grade 0
2	Cosmetic specs relaxed relative to Grade 1
3	Cosmetic specs relaxed relative to Grade 2
A	Standard Grade. Used when only one grade is available for a given product.
C	Commercial Grade. Meets all specification criteria, but have not been fully qualified. Intended for evaluation purposes only and have NO warranty. Quantities are strictly limited and sold only "as available".
E	Engineering Grade. Electrically functional and meet most, but not necessarily all, product performance specifications, however there are no limitations on the number of or size of cosmetic defects (points, clusters, columns, glass defects, etc.) allowed. Intended for evaluation purposes only and have NO warranty. Quantities are strictly limited and sold only "as available".
T	Test Sample. Closely resembles the performance of the final product, however may not meet any of the specification criteria. Intended for evaluation purposes only and have NO warranty. Quantities are strictly limited and offered only "as available".
M	Mechanical Sample. Meets all physical dimensions and tolerances and likely does not image. Intended for evaluation purposes only and have NO warranty. Quantities are strictly limited and offered only "as available".
X	Special

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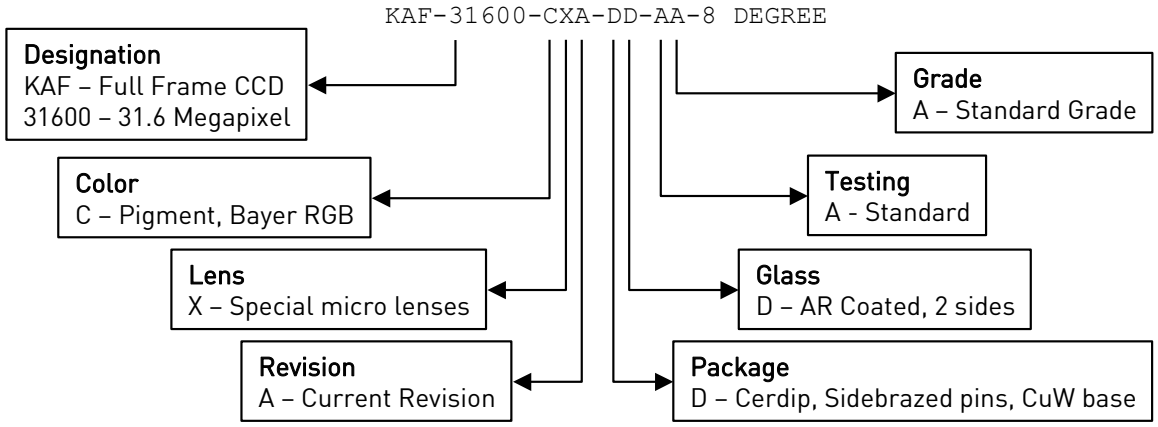
COMMENTS

In addition to the commonly used configurations described above, several components of this naming convention also allow for custom, or "special" configurations, denoted by use of the code "X". When used, this special configuration is defined in a comment field that follows the part name listed above. If this code is not used in the product name, the comment field is left blank. See the examples below for more information.

EXAMPLES

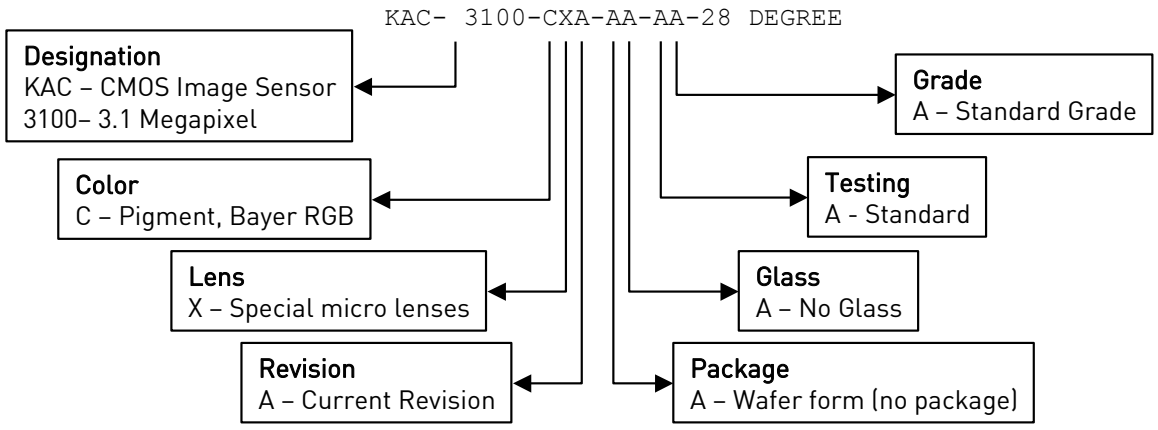
KAF-31600-CXA-DD-AA-8 DEGREE

Note that the comment "8 Degree" defines the special microlens configuration indicated by the use of the code "X"



KAC- 3100-CXA-AA-AA-28 DEGREE

Note that the comment "28 Degree" defines the special microlens configuration indicated by the use of the code "X".



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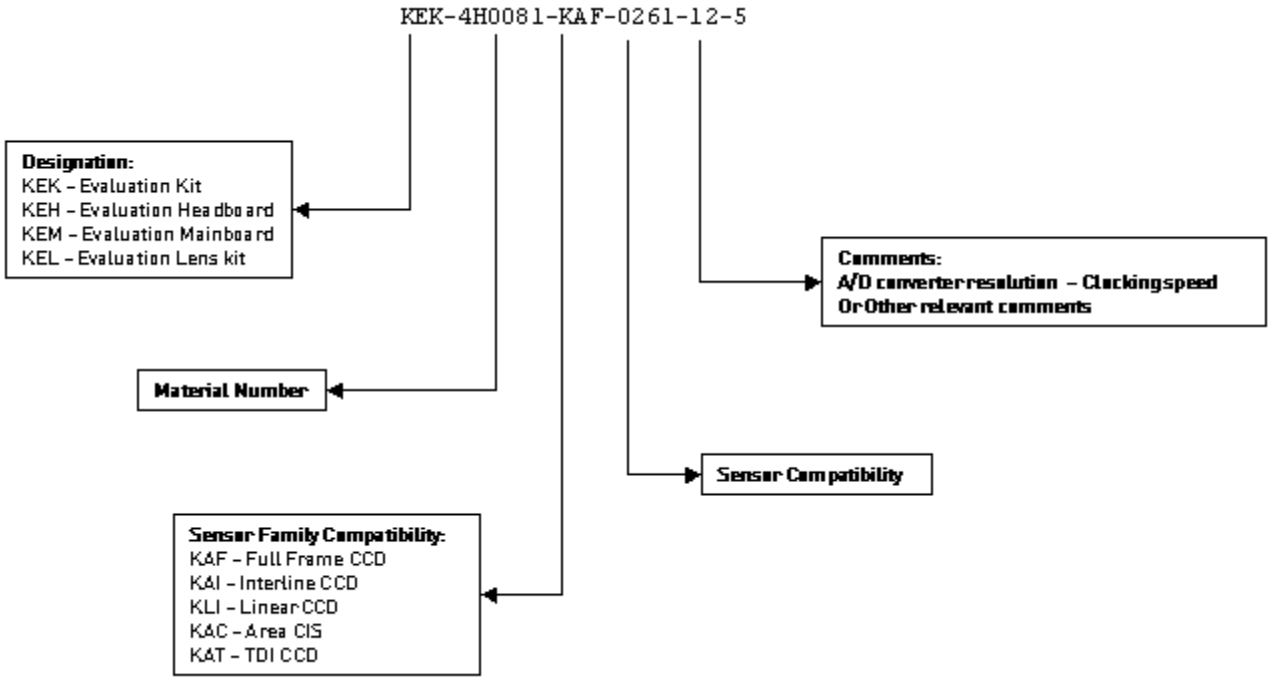
EVALUATION BOARD & CDU PRODUCT NAMING CONVENTION



REVISION CHANGES

Revision Number	Description of Changes
1.0	Initial release
2.0	Added Packaging Designation R- pLLP
3.0	Renumbered document to MTD/PS-0892 to align with the references in ISS Device Performance Specifications. Added another letter option, 'N', defined as: 'Pigment, Bayer RGB, shorter red wavelength' in the Color Options in the naming convention. Added Evaluation Board & CDU Product Naming Convention.
4.0	Added a new variable to the Color Filter Array table; letter 'P' to designate "TRUESENSE CFA Pattern
5.0	Changed item 'Q' to read '1 side'
6.0	Updated Product Grade table descriptions

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