



<b>Title of Change:</b>	KAE-04471 Datasheet Updates	
<b>Effective date:</b>	8 January 2018	
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <John.Frenett@onsemi.com>	
<b>Type of notification:</b>	This Product Bulletin is for notification purposes only. ON Semiconductor will proceed with implementation of this change upon publication of this Product Bulletin.	
<b>Change category:</b>	<input type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Other: <u>Datasheet</u>	
<b>Change Sub-Category(s):</b>	<input checked="" type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Other: _____	
<b>Sites Affected:</b>	ON Semiconductor Sites: ON Rochester, New York	External Foundry/Subcon Sites: None

**Description and Purpose:**

This Product Bulletin announces the following changes

- 1) A number of pins in Table 3 (PIN DESCRIPTION) were mapped to incorrect labels and descriptions due to an incomplete edit of a preliminary revision. The correct mapping is as follows:

Pin Number	Label	Description
B19	RG23b	Amplifier 2 and 3 reset, quadrant b
A18	H2Lb	HCCD last gate, outputs 1,2 and 3, quadrant b
C19	H2SW2b	HCCD output 2 selector, quadrant b
C18	H2SW3b	HCCD output 3 selector, quadrant b
B18	GND	Ground
A19	VOUT2b	Video output 2, quadrant b
F24	V2B	VCCD bottom phase 2
F23	ESD	
D21	V1T	VCCD top phase 1
D22	V2T	VCCD top phase 2
D23	V3T	VCCD top phase 3
E23	V4T	VCCD top phase 4
E4	GND	Ground
F21	VOUT1d	Amplifier 1 output, quadrant d
F22	VDD1d	Amplifier 1 supply, quadrant d
F6	VDD2c	Amplifier 2 supply, quadrant c
F7	VOUT2c	Video output 2, quadrant c
E18	GND	Ground
D8	H2SW3c	HCCD output 3 selector, quadrant c
D7	H2SW2c	HCCD output 2 selector, quadrant c
F8	H2Lc	HCCD last gate, outputs 1,2 and 3, quadrant c
E7	RG23c	Amplifier 2 and 3 reset, quadrant c



- 2) Explicit reference is now provided for no-connect pins in Table 3 (PIN DESCRIPTION).

Pin Number	Label	Description
E1	N/C	No connect
F1	N/C	No connect
D2	N/C	No connect
D1	N/C	No connect
C24	N/C	No connect
A26	N/C	No connect
B26	N/C	No connect
C26	N/C	No connect
D26	N/C	No connect
E26	N/C	No connect
F26	N/C	No connect

- 3) Updated Table 3 (PIN DESCRIPTION) with missing row.

Pin Number	Label	Description
F3	ESD	

- 4) Added Figure 4 (Monochrome and Color Quantum Efficiency).
- 5) Added Figure 5 (Angled Response for Monochrome Device).
- 6) Added Figure 6 (Vertical Angled Response for Color Device).
- 7) Added Figure 7 (Horizontal Angled Response for Color Device).
- 8) Added Figure 8 (Frame Rates vs. Clock Frequency).
- 9) Table 9 (DC BIAS OPERATING CONDITIONS): The second of two original notes has been rewritten; a third note has been added.
- 10) Table 12 (ELECTRONIC SHUTTER PULSE): All rows have been eliminated, save for one. The single remaining row, dedicated to pin SUB, presents new values for **Low** and **High** electronic shutter voltages.
- 11) Table 13, previously labelled DC BIAS OPERATING CONDITIONS, is now labelled DEVICE IDENTIFICATION.
- 12) Relabeled Figure 33 (Completed Assembly 1).
- 13) Relabeled Figure 34 (Completed Assembly 2).
- 14) Relabeled Figure 35 (Completed Assembly 3).
- 15) The Table 7 (ABSOLUTE MAXIMUM RATINGS) value for Operating Temperature Minimum has been corrected to read -30 deg C (had been -70 deg C).
- 16) In Table 13 (DEVICE IDENTIFICATION VALUES), item Device Identification's MIN, NOM, and MAX have been corrected to 63,000 (was 8,000), 70,000 (was 10,000), and 84,000 (was 12,000), respectively.

#### List of Affected Standard Parts:

KAE-04471-ABA-JP-FA  
 KAE-04471-ABA-JP-EE  
 KAE-04471-FBA-JP-FA  
 KAE-04471-FBA-JP-EE  
 KAE-04471-ABA-SP-FA  
 KAE-04471-ABA-SP-EE  
 KAE-04471-ABA-SD-FA  
 KAE-04471-ABA-SD-EE  
 KAE-04471-FBA-SP-FA  
 KAE-04471-FBA-SP-EE  
 KAE-04471-FBA-SD-FA  
 KAE-04471-FBA-SD-EE



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## Appendix A: Changed Products

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Product	Customer Part Number
KAE-04471-ABA-JP-FA	
KAE-04471-FBA-JP-FA	