

Title of Change:	AR0521 Datasheet Update
Effective date:	17 December 2018
Contact information:	Contact your local ON Semiconductor Sales Office or <Sonya.Yip@onsemi.com>
Type of notification:	This Product Bulletin is for notification purposes only. ON Semiconductor will proceed with implementation of this change upon publication of this Product Bulletin.
Change Category:	<input type="checkbox"/> Wafer Fab <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Other <u>Documentation</u>

Change Sub-Category(s):

<input type="checkbox"/> Manufacturing Site Addition	<input type="checkbox"/> Material Change	<input checked="" type="checkbox"/> Datasheet/Product Doc change
<input type="checkbox"/> Manufacturing Site Transfer	<input type="checkbox"/> Product specific change	<input type="checkbox"/> Shipping/Packaging/Marking
<input type="checkbox"/> Manufacturing Process Change	<input type="checkbox"/> Other: _____	

Sites Affected:	ON Semiconductor Sites: None	External Foundry/Subcon Sites: None
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Description and Purpose:
 AR0521 Datasheet was updated with new information. These changes do not affect form, fit, or function of the product.

AR0521 Datasheet Changes

1. Changed VAA_Pixel to VAA_PIX in Figure 4, mPLCC Package

Old Figure 4:

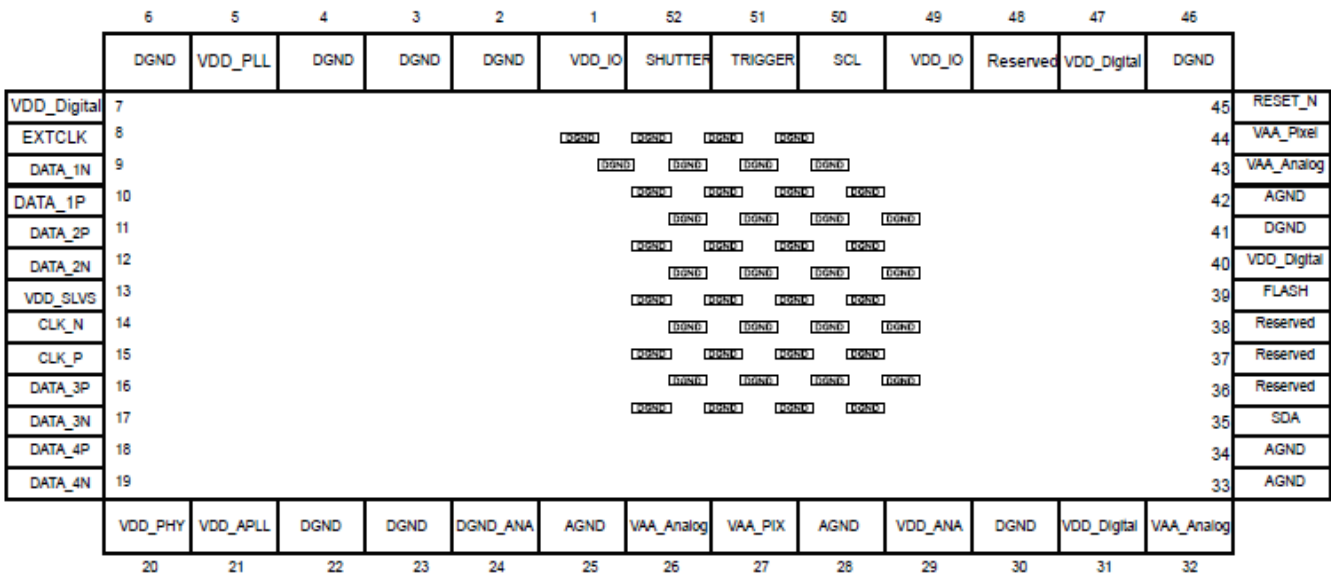


Figure 4. mPLCC Package



New Figure 4:

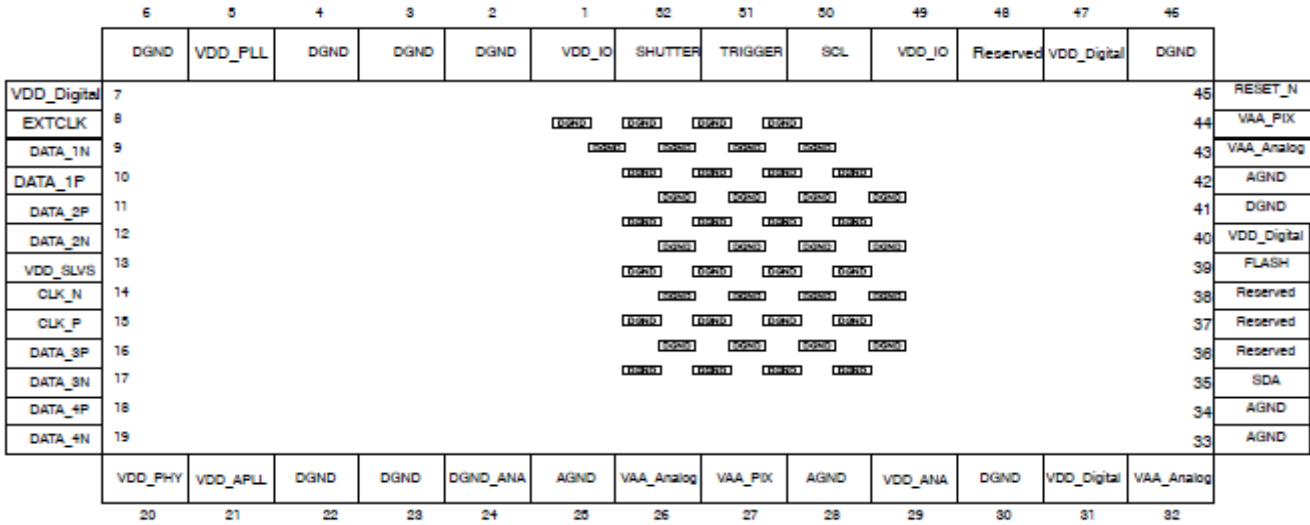


Figure 4. mPLCC Package

2. Changed VAA_Pix Pin Description in Table 4,” Pin Description, mPLCC”

Old Table 1:

Table 4. PIN DESCRIPTION, mPLCC

Name	mPLCC Pin	Type	Description
VAA_PIX	27	Power	Pixel Power
VAA_PIX	44	Power	Analog Power

New Table:

Table 4. PIN DESCRIPTION, mPLCC

Name	mPLCC Pin	Type	Description
VAA_PIX	27	Power	Analog Power Supply for the Pixel Array
VAA_PIX	44	Power	Analog Power Supply for the Pixel Array

3. Updated Table 5, “ISO” to match AR0521 Sensor Core Characteristics Document

Old Table 5:

Table 5. ISO

CALCULATION BASED ON ISO12232 METHODOLOGY			
ISO	Analog Gain	Digital Gain	Total Gain
105 (minimum ISO speed)	1	1	1
200	1.79	1	1.79
400	3.43	1	3.43
800	6.71	1	6.71
1600	13.29	1	13.29
3200	13.21	2	26.43
6400	13.18	4	52.71

New Table 5:

Table 5. ISO

CALCULATION BASED ON ISO12232 METHODOLOGY			
ISO	Analog Gain	Digital Gain	Total Gain
142 (minimum ISO speed)	1	1	1
200	1.38	1	1.38
400	2.70	1	2.70
800	5.34	1	5.34
1600	10.62	1	10.62
3200	10.58	2	21.17
6400	10.62	4	42.28

4. Replaced Figure 19, "AR0521 Quantum Efficiency vs. Wavelength" to match AR0521 Sensor Core Characteristics Document

Old Figure 19:

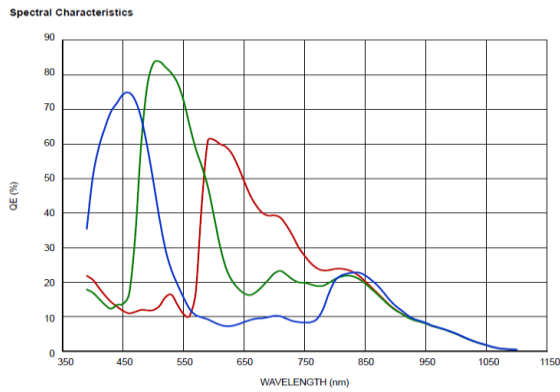


Figure 19. AR0521 Quantum Efficiency vs. Wavelength

New Figure 19:

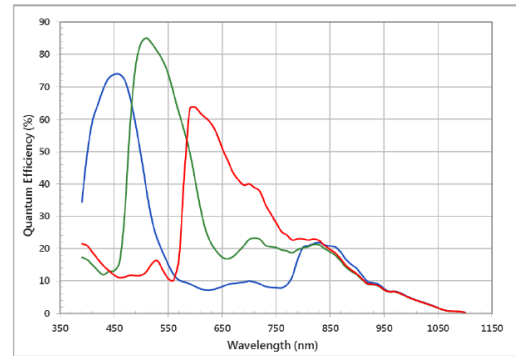


Figure 19. AR0521 Quantum Efficiency vs. Wavelength

5. Replaced Figure 20, "AR0521 Mono Quantum Efficiency vs. Wavelength" to match AR0521 Sensor Core Characteristics Document

Old Figure 20:

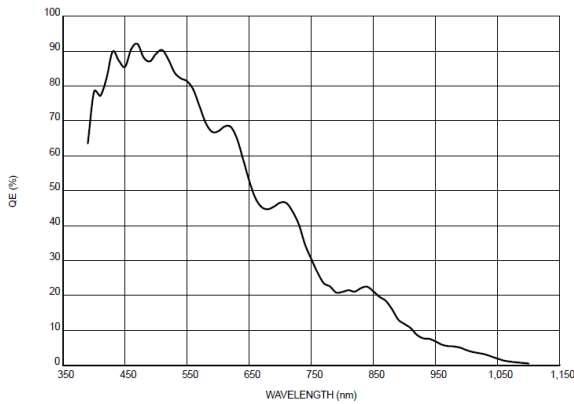


Figure 20. AR0521 Mono Quantum Efficiency vs. Wavelength

New Figure 20:

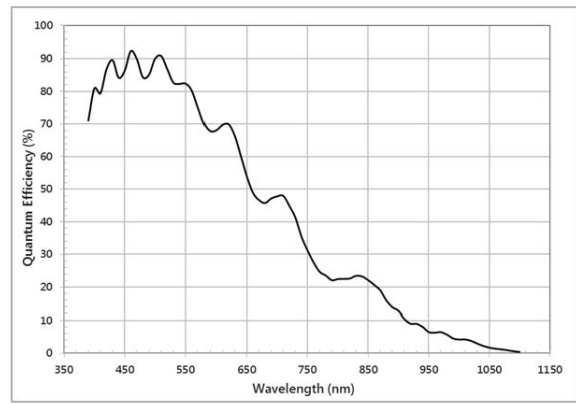


Figure 20. AR0521 Mono Quantum Efficiency vs. Wavelength

List of Affected Parts:

AR0521SR2C09SURA0-DR	AR0521SR2M09SURA0-DP	AR0521SR2C09SURA0-DR-E	AR0521SR2M09SURA0-DP-E
AR0521SR2M09SURA0-DR	AR0521SR2C09SURA0-DP	AR0521SR2M09SURA0-DR-E	AR0521SR2C09SURA0-DP-E

Appendix A: Changed Products

Product	Customer Part Number
AR0521SR2C09SURA0-DP	
AR0521SR2C09SURA0-DR	
AR0521SR2M09SURA0-DP	
AR0521SR2M09SURA0-DR	