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Title of Change:	AR1820HS Datasheet Update
Effective date:	13 Jan 2022
Contact information:	Contact your local onsemi Sales Office or Sonya.Yip@onsemi.com
Type of notification:	This Product Bulletin is for notification purposes only. onsemi will proceed with implementation of this change upon publication of this Product Bulletin.
Change Category:	Documentation
Change Sub-Category(s):	Datasheet/Product Doc change

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
None	None

Description and Purpose:

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Updated "Minimum Row Time" section in AR1820HS Datasheet.

Old Section:

MINIMUM ROW TIME

Enough time must be given to the output FIFO so it can output all data at the set frequency within one row time.

There are therefore three checks that must all be met when programming line_length_pck:

- Shutter Limited: 4188 pcks
- Readout Limited for 10−bit: line_length_pck $\geq$ (x_output_size +160+4(0x005E))
- Output Limited: $(4*(x\_output\_size/Interface)+41)*(clk\_pixel\_freq\_mhz/op\_pix\_clk\_-freq\_mhz)$

NOTE: Interface can be 2, 4 or 8 lane.

New Section:

MINIMUM ROW TIME

Enough time must be given to the output FIFO so it can output all data at the set frequency within one row time.

There are therefore three checks that must all be met when programming line_length_pck:

- Shutter Limited: 4632 pcks (12−bits)
- Readout Limited for 10−bit: line_length_pck $\geq$ (x_output_size +160+4(0x0064))
- Output Limited for HiSPi: $4((x\_output\_size/Interface)+41)(clk\_pixel\_freq\_mhz/op\_pix\_clk\_freq\_mhz)$
- Output Limited for MIPI: $4((x\_output\_size/Interface)+134)(clk\_pixel\_freq\_mhz/op\_pix\_clk\_freq\_mhz)$

NOTE: Interface can be 2, 4 or 8 lane.

List of Affected Standard Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the **PCN Customized Portal**.

AR1820HSSC12SHEA0-DP1	AR1820HSSC12SHEA0-DP	AR1820HSSC00SHEA0-DP1
AR1820HSSC12SHEA0-DR1	AR1820HSSC00SHEA0-DR	AR1820HSSC12SHEA0-DR
AR1820HSSC12SMD20		

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
AR1820HSSC00SHEA0-DP1		NA		