



Title of Change:	AR1820HS Datasheet Update.
Effective date:	1 November 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:

AR1820HS Datasheet was updated to correct document errors. These changes do not affect form, fit, or function of the product.

AR01820HS Datasheet Changes

3. Updated Table 4, "MIPI Modes of Operation and Power Consumption"

Old Table 5:

Table 3. HiSPI MODES OF OPERATION AND POWER CONSUMPTION

Mode	Active Readout Window (col x row)	Sensor Output Resolution (col x row)	Readout Mode	FOV	FPS	Typical Power Consumption (mW)
16:9 VIDEO MODE						
14M HD	4912 x 2764	4912 x 2763	Native	100% HD aspect	20	482
8Mp QuadHD 1	3840x2160	3840x2160	native crop	>77% HD aspect	32	496
HD 1080p60 + 20+%EIS	4896x2756	2448x1378	x--ana--bin2 y--ana--sum2	>99% HD aspect	60	385
Ultra-Fast HD 1080p120	3840x2160	1920x1080	x--ana--bin2 y--ana--sum2	>78% HD aspect	120	431

3. 800 Mbps/lane max. MIPI 4-Lane data transfer rate.
4. Measured at nominal voltage considering dynamic power saving.

New Table 5:

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Mode	Active Readout Window (col x row)	Sensor Output Resolution (col x row)	Readout Mode	FOV	FPS	Typical Power Consumption (mW)
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3. 800 Mbps/lane max. MIPI 4-Lane data transfer rate.
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2. Updated Table 5, “Pad Descriptions”, Two Wire Serial Interface Section

Old Table 5:

TWO-WIRE SERIAL INTERFACE		
SCLK	Input	Serial clock for access to control and status registers.
SDATA	I/O	Serial data to read from and write to control and status registers.

New Table 5:

TWO-WIRE SERIAL INTERFACE		
SCLK	Input	Serial clock for access to control and status registers.
SDATA	I/O	Serial data to read from and write to control and status registers.
CS_BAR	Input	CS_BAR = 1 to enable 2-wire interface
CSI_EN	Input	CSI_EN should be "0" to enable 2-wire interface.

3. Removed Temperature Sensor Section. This section will now be located in the Developer’s Guide.

List of Affected Parts:

- AR1820HSSC00SHEA0-DR
- AR1820HSSC12SHEA0-DR
- AR1820HSSC12SHEA0-DP
- AR1820HSSC00SHEA0-DP1
- AR1820HSSC12SMD20
- AR1820HSSC31SMD20

Appendix A: Changed Products

Product	Customer Part Number
AR1820HSSC00SHEA0-DP1	
AR1820HSSC00SHEA0-DR	
AR1820HSSC12SHEA0-DP	
AR1820HSSC12SHEA0-DR	