

## AR2020

# Image Sensor, 20 MP, Rolling Shutter, Hyperlux™ LP

## Product Overview

For complete documentation, see the data sheet.

AR2020, belongs to **onsemi's** Hyperlux LP product family, it's a 1/1.8inch Back-Side Illuminated (BSI) Stacked CMOS digital image sensor with a 5120 x 3840 activepixel array. This advanced sensor captures images in either linear or enhanced Dynamic Range (eDR) modes, with a rollingshutter readout. The AR2020 is architected & designed to deliver highquality performance consuming very low power. It is supported by a 1.4 μm BSI pixel from **onsemi** and delivers excellent performance in lowlight & NIR wavelengths. The features of the AR2020 provides a powerful data capturing device at the edge that can be programmed through several options to deliver optimal bandwidth at very low power.

## Features

- Lowest Power Consumption among Comparable Offerings in the Industry
- Enhanced NIR Response in 850nm & 940nm Wavelength
- SmartROI
- Wake on Motion (WOM)
- Multiple Subsampling Modes - Binning, summing, Skipping, Windowing
- Multiple Functional Modes - Global Reset Release (GRR), Trigger, Context Switching
- enhanced Dynamic Range (eDR) & Line Interleaved HDR (LI-HDR) Modes








## Applications


- Videoconferencing
- Virtual & Augmented Reality
- Machine Vision
- Retail Analytics
- Biometrics

## End Products

- VC Endpoints, Webcam
- Video Doorbells
- AR/VR/XR Headsets
- Machine Vision Cameras
- Retail In-store Cameras

## Part Electrical Specifications

Product	Status	Compliance	Type	Megapixels	Frame Rate (fps)	Optical Format	Shutter Type	Pixel Size (µm)	Output Interface	Color	Family	Packaging Type	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.
AR2020CSSC13 SMD20	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	-		NA	0	MTFRM	1
AR2020CSSC13 SMD20-RC1	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	-		NA	0	MTFRM	1
AR2020CSSC13 SMTA0-DP	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	PBG A78 13x 10.5	117 CV. PDF	4	245	JTRAY	1330
AR2020CSSC13 SMTA0-DP2	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	PBG A78 13x 10.5	117 CV. PDF	4	245	JTRAY	50
AR2020CSSM1 3SMD20	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	Mono	Hyperlux LP	-		NA	0	MTFRM	1
AR2020CSSM1 3SMD20-RC1	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	Mono	Hyperlux LP	-		NA	0	MTFRM	1
AR2020CSSM1 3SMTA0-DP	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	Mono	Hyperlux LP	PBG A78 13x 10.5	117 CV. PDF	4	245	JTRAY	1330

AR2020CSSM1 3SMTA0-DP2	Active		CMOS	20	60	1/1.8 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	Mono	Hyperlux LP	PBG A78 13x 10.5	117 CV. PDF	4	245	JTR AY	50
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