

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 μ m 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 13.0 0x1 0.5 0x1.57, 1.00 P	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 13.0 0x1 0.5 0x1.57, 1.00 P	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	Monochrome	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	Monochrome	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	Monochrome	Hyperlux LP	PBG A78 13.0 0x1 0.5 0x1.57, 1.00 P	117 CV. PDF	4	245	JTRAY	1330

AR2020CSSM1 3SMTA0-DP2	Active		CM OS	20	60	1/1.8 inch	Elec tron ic Rolli ng and Glo bal Res et Rele ase	1.4 x 1.4	MIPI	Mon o	Hyper lux LP	PBG A78 13.0 0x1 0.5 0x1.57, 1.00 P	117 CV. PDF	4	245	JTR AY	50
---------------------------	--------	---	----------	----	----	---------------	--	-----------------	------	----------	--------------------	--	-------------------	---	-----	-----------	----