

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	Me gapi xels	Fra me Rat e (fps)	Opti cal For mat	Shu tter Typ e	Pixe l Size (µm)	Out put Inte rfac e	Col or	Fam ily	Pac kag e Typ e	Cas e Outl ine	MS L Typ e	MS L Tem p (°C)	Con tain er Typ e	Con tain er Qty.
AR2020CSSC13 SMD20	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	RGB	Hyp erlu x LP	-		NA	0	MT FR M	1
AR2020CSSC13 SMD20-RC1	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	RGB	Hyp erlu x LP	-		NA	0	MT FR M	1
AR2020CSSC13 SMTA0-DP	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	RGB	Hyp erlu x LP	PBG A78 13.0 0x1 0.5 0x1. 57, 1.00 P	117 CV. PDF	4	245	JTR AY	133 0
AR2020CSSC13 SMTA0-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	RGB	Hyp erlu x LP	PBG A78 13.0 0x1 0.5 0x1. 57, 1.00 P	117 CV. PDF	4	245	JTR AY	50
AR2020CSSM1 3SMD20	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	Hyp erlu x LP	-		NA	0	MT FR M	1
AR2020CSSM1 3SMD20-RC1	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	Hyp erlu x LP	-		NA	0	MT FR M	1
AR2020CSSM1 3SMTA0-DP	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	Hyp erlu x LP	PBG A78 13.0 0x1 0.5 0x1. 57, 1.00 P	117 CV. PDF	4	245	JTR AY	133 0

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 13.0 0x1 0.5 0x1.57, 1.00 P	117 CV. PDF	4	245	JTRAY	50
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