

AR0830

Image Sensor, 8.3 MP, Rolling Shutter, Hyperlux™ LP

Product Overview

For complete documentation, see the data sheet.

AR0830, belongs to **onsemi's** Hyperlux LP product family, is a 1/2.9inch Back-Side Illuminated (BSI) Stacked CMOS digital image sensor with a 3840 x 2160 activepixel array. This advanced sensor captures images in either linear or enhanced Dynamic Range (eDR) modes, with a rollingshutter readout. The AR0830 is architected & designed to deliver highquality performance consuming very low power. It is supported by a 1.4 m BSI pixel from **onsemi** and delivers excellent performance in lowlight & NIR wavelengths. The features of the AR0830 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
- 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
- Smart Access
- Virtual & Augmented Reality
- Machine Vision
- Retail Analytics

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	Package Type	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.
AR0830CSC11 SMD20	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	-		NA	0	MTFRM	1
AR0830CSC11 SMD20-RC1	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	-		NA	0	MTFRM	1
AR0830CSC11 SMA1-CP	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTRAY	3000
AR0830CSC11 SMA1-CP2	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTRAY	50
AR0830CSC3 5SMD20	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	-		NA	0	MTFRM	1
AR0830CSC3 5SMD20-RC1	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	-		NA	0	MTFRM	1
AR0830CSC3 5SMA1-CP	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTRAY	3000

AR0830CSSC35SMKA1-CP2	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTR AY	50
AR0830CSSH11SMD20	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB-IR	Hyperlux LP	-		NA	0	MTFRM	1
AR0830CSSH11SMD20-RC1	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB-IR	Hyperlux LP	-		NA	0	MTFRM	1
AR0830CSSH11SMKA1-CP	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB-IR	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTR AY	3000
AR0830CSSH11SMKA1-CP2	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB-IR	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTR AY	50
AR0830CSSH35SMKA1-CP	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB-IR	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTR AY	3000
AR0830CSSH35SMKA1-CP2	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	RGB-IR	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTR AY	50
AR0830CSSM11SMKA1-CP	Active		CMOS	8.3	60	1/3 inch	Electronic Rolling and Global Reset Release	1.4 x 1.4	MIPI	Mono	Hyperlux LP	OD CSP 59 6.41 x3.9 1x0.63, 0.5 OP	570 AY. PDF	4	245	CTR AY	3000

AR0830CSSM11 SMKA1-CP2	Active		CM OS	8.3	60	1/3 inch	Elec tron ic Rolli ng and Glo bal Res et Rele ase	1.4 x 1.4	MIPI	Mon o	Hyper lux LP	OD CSP 59 6.41 x3.9 1x0. 63, 0.5 0P	570 AY. PDF	4	245	CTR AY	50
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