



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# ORION LINE SCAN

LINE SCAN SENSORS



Orion is a digital high speed line scan sensor with configurable photo-diode size. Over the SPI

interface the photo-diode size can be configured to a 10µm x 10µm size or 10µm x 200µm size. Independently from the photo-diode the conversion capacitance can be configured over SPI interface. The larger conversion capacitance, resulting in a full well capacity of 300ke- results in outstandingly high SNR. The smaller conversion capacitance, resulting in a full well capacity of 30ke- results in very high sensitivity, ideal for high speed scanning applications or detecting extremely low signal levels. The high aspect ratio photo-diode makes the Orion sensors ideal for spectrometric and OCT applications where the light is gathered over a wide area.

Please note that we offer today only engineering samples, production ramp up is expected towards Q3 2017. For pricing and lead time please contact [ISS.CIS\\_info@ams.com](mailto:ISS.CIS_info@ams.com).

## SPECIFICATIONS

<b>Resolution</b>	2k
<b>Pixel size</b>	10 x 10 and 10 x 200
<b>Shutter type</b>	Global shutter
<b>Frame rate</b>	60k scan/s
<b>Output interface</b>	11/ 13 bit
<b>Sensitivity</b>	113 DN/nj/cm <sup>2</sup> @12bit (10 x 10 um <sup>2</sup> pixel) and 211 DN/nj/cm <sup>2</sup> @12bit (10 x 200 um <sup>2</sup> pixel)
<b>Conversion gain</b>	0.248 DN/e (13 bit)(Big Well)   0.022 DN/e (13 bit) (Small Well)
<b>Full well charge</b>	30k e- (10 x 10 um <sup>2</sup> pixel) and 300k e- (10 x 200 um <sup>2</sup> pixel)
<b>Dark noise</b>	2.05 DN
<b>Dynamic range</b>	59.15 dB (10 x 10 um <sup>2</sup> pixel) and 59.44 dB (10 x 200 um <sup>2</sup> pixel)
<b>Fixed pattern noise</b>	DSNU: 6 [DN] PRNU: 1%
<b>Chroma</b>	Mono
<b>Supply voltage</b>	3.3 V
<b>Power</b>	500 mw per 2K segment
<b>Operating temperature range</b>	0°C - 50 °C
<b>RoHS compliance</b>	Yes
<b>Socket</b>	Andon Electronics ( <a href="http://www.andonelectronics.com">http://www.andonelectronics.com</a> ) Orion 2K Ceramic LCC: 694-76-SM-G10-L14-1

## ORDERING INFO - ORION LINE SCAN

<b>Part Number</b>	<b>Version</b>	<b>Chroma</b>	<b>Microlens</b>	<b>Package</b>	<b>Glass</b>
Orion-2K	10x10 um or 10x200 um	Mono	No	Ceramic LCC	No glass