Key features

- Small (10.4 x 6.0 x 2.2mm)
- Excellent bias repeatability over temperature
- Dual-axis MEMS accelerometer in a hermetically sealed ceramic LCC surface mount package for temperature and humidity resistance
- Five dynamic range options; ±0.85g, ±2.5g, ±10g, ±30g, ±96g
- Analogue and digital (SPI®) outputs for linear acceleration and temperature
- Wide bandwidth (typically 170Hz digital, 250Hz analogue)
- Temperature range -40 to +125°C
- Low power consumption (3mA Typ) from a 3.3V supply
- Integral temperature sensor
- RoHS compliant

Typical applications

- Aerospace and industrial
- Aircraft AHRS and controls
- Platform stabilisation
- Drilling guidance
- Surveying and mapping
- Land and marine navigation
- Transportation
- Inertial measurement units
- Levelling and tilt sensing

© Silicon Sensing is an Atlantic Inertial Systems, Sumitomo Precision Products joint venture company
## Dual-Axis Accelerometer

For full technical datasheets please go to our website where the documents can be downloaded.

### CAS20x CAS29x

All dimensions in millimetres

![Gemini Evaluation Board - CAS200 (P/N CAS21x-EVB)](image1)

![Gemini Evaluation Board - CAS290 (P/N CAS29x-EVB)](image2)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sense axes</td>
<td>2-axis</td>
</tr>
<tr>
<td>Ordering Part Number</td>
<td>CAS211, CAS212, CAS213, CAS214, CAS215</td>
</tr>
<tr>
<td>Dynamic range</td>
<td>±0.85g, ±2.5g, ±10g, ±30g, ±96g</td>
</tr>
<tr>
<td>SF over temperature</td>
<td>1.2% (Digital), 1.5% (Analogue)</td>
</tr>
<tr>
<td>SF non-linearity</td>
<td>0.5%, 0.5%, 2.0%, 2.0%, 2.0%</td>
</tr>
<tr>
<td>Bias run to run @ +25ºC</td>
<td>0.35mg, 0.75mg, 0.75mg, 3.0mg, 8.0mg</td>
</tr>
<tr>
<td>Noise spectral density</td>
<td>50μg/√Hz, 150μg/√Hz, 150μg/√Hz, 350μg/√Hz, 1,200μg/√Hz</td>
</tr>
<tr>
<td>Vibration rectification</td>
<td>0.15mg/g @ 0.5gms, 0.15mg/g @ 2.0gms, 0.15mg/g @ 8.0gms, 0.15mg/g @ 12gms, 0.15mg/g @ 12gms</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>2.7V - 3.6V</td>
</tr>
<tr>
<td>Current consumption</td>
<td>3mA</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>&gt; 170Hz (Digital), &gt; 250Hz (Analogue)</td>
</tr>
<tr>
<td>Temperature</td>
<td>Operating: -40ºC to +125ºC, Storage: -55ºC to +150ºC</td>
</tr>
<tr>
<td>Shock</td>
<td>Operating: 1,000g 1ms ½ sine, Survival: &gt; 6,500g 0.1ms ½ sine</td>
</tr>
<tr>
<td>Start-up time</td>
<td>20ms</td>
</tr>
<tr>
<td>Mass</td>
<td>0.4 gram typical</td>
</tr>
</tbody>
</table>

Silicon Sensing Systems Limited
Clittaford Road, Southway, Plymouth, Devon PL6 6DE United Kingdom
T +44 (0)1752 723330
F +44 (0)1752 723331
E sales@siliconsensing.com
W siliconsensing.com

Silicon Sensing Systems Japan Limited
1-10 Fuso-Cho, Amagasaki, Hyogo 6600891, Japan
T +81 (0)6 6489 5868
F +81 (0)6 6489 5919
E sssj@spp.co.jp
W siliconsensing.com

Specification subject to change without notice.

© Copyright 2015
Silicon Sensing Systems Limited
All rights reserved. Printed in England 09/15
CAS200-00-0100-131 Rev 6
CSR No. 710000415