

This anomaly list describes the known bugs, anomalies, and workarounds for the [ADIS16488](#).

Analog Devices, Inc., is committed, through future silicon revisions, to continuously improve silicon functionality. Analog Devices tries to ensure that these future silicon revisions remain compatible with your present software/systems by implementing the recommended workarounds outlined within this document.

## PERFORMANCE ISSUES

**Table 1. Incorrect Scale Factors for the x\_DELTANG\_OUT, x\_DELTANG\_LOW Registers [er001]**

<b>Background</b>	The <a href="#">ADIS16488</a> provides delta angle registers, which contain sample-to-sample angle displacement estimates for all three axes. The x_DELTANG_OUT registers provide the upper 16 bits, and the x_DELTANG_LOW registers provide the lower 16 bits. The x_DELTANG_OUT registers typically provide a scale factor of $720 \div 2^{15}$ degrees per LSB, and the x_DELTANG_LOW registers provide additional resolution ( $720 \div 2^{31}$ degrees per LSB).
<b>Issue</b>	On units that have firmware Revision 1.02 (or earlier), the delta angle registers do not have the same scale factors as those listed in the product data sheet. For these units, the scale factors are $274 \div 2^{15}$ degrees per LSB for x_DELTANG_OUT and $274 \div 2^{31}$ degrees per LSB for x_DELTANG_LOW.
<b>Workaround</b>	Use $274 \div 2^{15}$ degrees per LSB for the x_DELTANG_OUT scale factor and $274 \div 2^{31}$ degrees per LSB for the x_DELTANG_LOW scale factor. Use the FIRM_REV register to determine the firmware revision of a unit. For example, FIRM_REV = 0x0103 equates to a firmware revision of 1.03.
<b>Related Issues</b>	None.

**Table 2. Incorrect Scale Factors for the x\_DELTVEL\_OUT, x\_DELTVEL\_LOW Registers [er002]**

<b>Background</b>	The <a href="#">ADIS16488</a> provides delta velocity registers, which contain sample-to-sample velocity estimates for all three axes. The x_DELTVEL_OUT registers provide the upper 16 bits and the x_DELTVEL_LOW registers provide the lower 16 bits. The x_DELTVEL_OUT registers typically provide a scale factor of $200 \div 2^{15}$ mm/sec per LSB, and the x_DELTVEL_LOW registers provide additional resolution ( $200 \div 2^{31}$ mm/sec per LSB). The ADIS16488 (Rev. A) data sheet incorrectly documents these scale factors as $160 \div 2^{15}$ and $160 \div 2^{31}$ , respectively; these errors are being addressed in Rev. B of the data sheet.
<b>Issue</b>	On units that have firmware Revision 1.02 (or earlier), the delta velocity registers do not have the same scale factors as those listed in the product data sheet. For these units, the scale factors are $97.65 \div 2^{15}$ mm/sec per LSB for x_DELTVEL_OUT and $97.65 \div 2^{31}$ mm/sec per LSB for x_DELTVEL_LOW.
<b>Workaround</b>	Use $97.65 \div 2^{15}$ mm/sec per LSB for the x_DELTVEL_OUT scale factor and $97.65 \div 2^{31}$ mm/sec per LSB for the x_DELTVEL_LOW scale factor. Use the FIRM_REV register to determine the firmware revision of a unit. For example, FIRM_REV = 0x0103 equates to a firmware revision of 1.03.
<b>Related Issues</b>	None.

## ANOMALY STATUS

Reference Number	Description	Status	Date Code
er001	Incorrect scale factors for the x_DELTANG_OUT, x_DELTANG_LOW registers.	Open	N/A <sup>1</sup>
er002	Incorrect scale factors for the x_DELTVEL_OUT, x_DELTVEL_LOW registers.	Open	N/A <sup>1</sup>

<sup>1</sup> The current schedule for release of firmware revision, 1.03, is June 15, 2012, which means that the effective date code for this issue will be, "1226 and earlier." Future revision of this document will reflect actual release date and date code effectivity.

### Rev. B

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**NOTES**