

**OVERVIEW**

This document outlines errata for the ADXL317 C-samples (also known as C-silicon), based on the ADXL317 datasheet revision 0 and expected functional performance. The C-sample material is intended to follow the functionality as defined in the ADI datasheet specification Rev 0.

**FUNCTIONAL ERRATA**

The following tables lists functionality that do not adhere to initial functional requirements. Notes list plan of record for future updates to documentation. Table 1 outlines the key errata items that affect communication or datasheet specifications.

**Table 1. Key Errata Items**

	Functional Requirement	Variance from Requirement	Notes
1	The sensitivity values shall match the datasheet Table 1 specifications.	The sensitivity values listed in the datasheet are different from actual device performance. See details in the next section.	This will be fixed in the next revision of the datasheet.
2	Figure 39 – Axes of sensitivity. The figure shall match device performance.	Figure 39 shows the pin 1 indicator in the wrong location.	This will be fixed in the next revision of the datasheet.
3	The typical z-axis self test magnitude shall be $\pm 6.8g$ .	The “Using the Self Test” section of the datasheet incorrectly lists this as $\pm 6.6g$ .	This will be fixed in the next revision of the datasheet.

**ERRATA ITEM #1: SENSITIVITY VALUES**

The ADXL317 has a digital sensitivity that varies with the chosen low-pass filter (LFP) corner. The datasheet (Rev 0) shows the sensitivity increasing as you increase the bandwidth of the LPF cascaded filter. The current datasheet (Rev 0) sensitivity specifications are listed in Table 2 below.

**Table 2. Accelerometer Sensitivity Specifications in Datasheet Rev 0**

Parameter	Symbol	Test Conditions/Comments	Min	Typ	Max	Unit
SENSITIVITY		Each axis				
Sensitivity		DC response				
500 Hz Cascaded Filter			454.5	500	555.6	LSB/g
1 kHz Cascaded Filter			461.5	507.6	564.0	LSB/g
2 kHz Cascaded Filter			468.6	515.5	572.7	LSB/g
4 kHz Cascaded Filter			519.5	571.4	634.9	LSB/g

The actual performance of the ADXL317 shows that the digital sensitivity decreases as the bandwidth is increased. The corrected sensitivity specifications are listed in Table 3 below. This will be updated in the next datasheet revision.

**Table 3. Actual Accelerometer Sensitivity (will be updated in Datasheet Rev A)**

Parameter	Symbol	Test Conditions/Comments	Min	Typ	Max	Unit
SENSITIVITY		Each axis				
Sensitivity		DC response				
500 Hz Cascaded Filter			450	500	550	LSB/g
1 kHz Cascaded Filter			442.8	492	541.1	LSB/g
2 kHz Cascaded Filter			435.5	483.9	532.3	LSB/g
4 kHz Cascaded Filter			394.7	438.6	482.4	LSB/g

**ERRATA ITEM #2: PIN 1 INDICATOR ON FIGURE 39**

Figure 39 in the datasheet Rev 0 shows the pin 1 indicator in the wrong location. This will be fixed in the next revision of the datasheet.

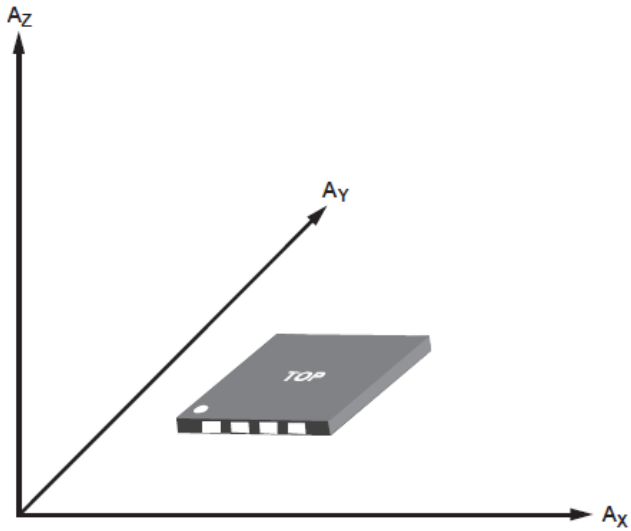


Figure 1. Current Figure 39 in ADXL317 Datasheet Rev 0 (Incorrect)

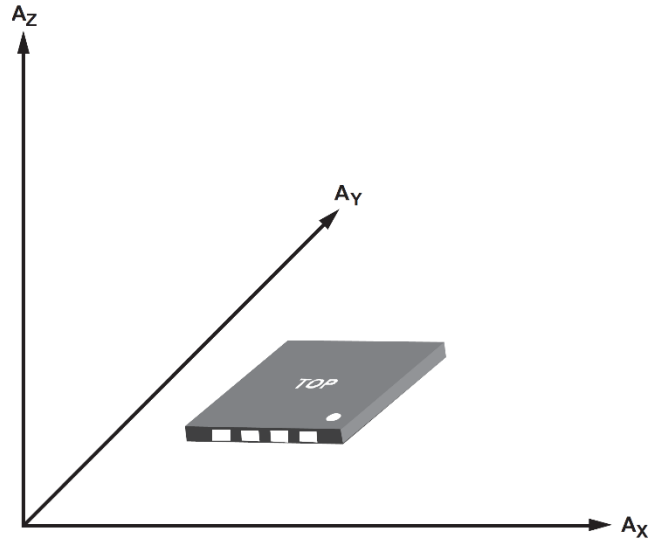


Figure 2. Updated Figure 39 in ADXL317 Datasheet Rev A (Corrected)

**NOTES**