
MLT-satellite-board LIS344ALH

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The MLT-LIS344ALH satellite module is an breakout board based on the ST's LIS344ALH analog output 3-axis accelerometer sensor IC. It uses the LIS344ALH in an LGA 16L (4x4x1.5mm) housing.

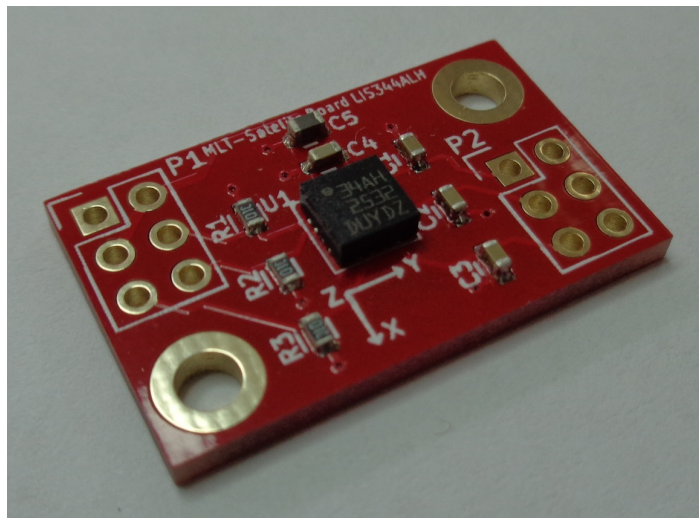


Figure 1: *photo of the board*

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The License is attached at the end of this document as well as a Guide to the CERN OHL v.1.2.

Please feel free to give your highly appreciated feedback, comments and suggestions. Or ask any questions about the board. We'll be glad to answer or help you.

Specification

- Dimension: 25.019 mm x 15.113 mm (1" x 0.6")
- 3.5V to 5V power supply voltage range
- settings accessible via pin headers, default 10 kOhm pull-down resistors
- 2 mounting hols with GND potential for M2.5 Screws
- two layer board with total 1.6 mm thickness.
- signal layer on top and GND plane on the bottom
- red solder mask

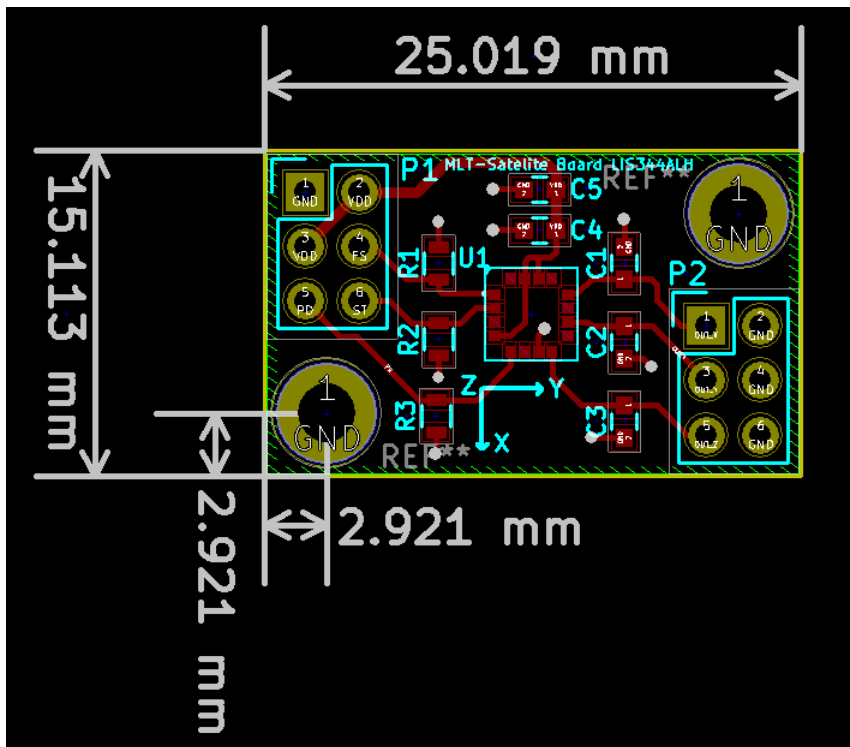


Figure 2: layout with dimensions

Settings

On P1 the user can adjust the full scale range, self test and power down mode. By default a 10k resistor is mounted to pull these inputs down to GND potential.

Table 1: *Settings*

Logic Level	Full Scale (FS)	Self Test (ST)	Power Down (PD)
0	2g	normal operation	normal operation
1	6g	Self Test	Power Down

Pin headers

There are two pin headers on the board. P1 and P2.

P1 is used for settings and power supply.

P2 is for used output signals.

The headers are not mounted to the board by default but straight headers will be shipped with the boards.

Table 2: *Pin Assignment Header P1*

Position	Signal
1	GND
2	VDD
3	VDD
4	FS
5	PD
6	ST

Table 3: *Pin Assignment Header P2*

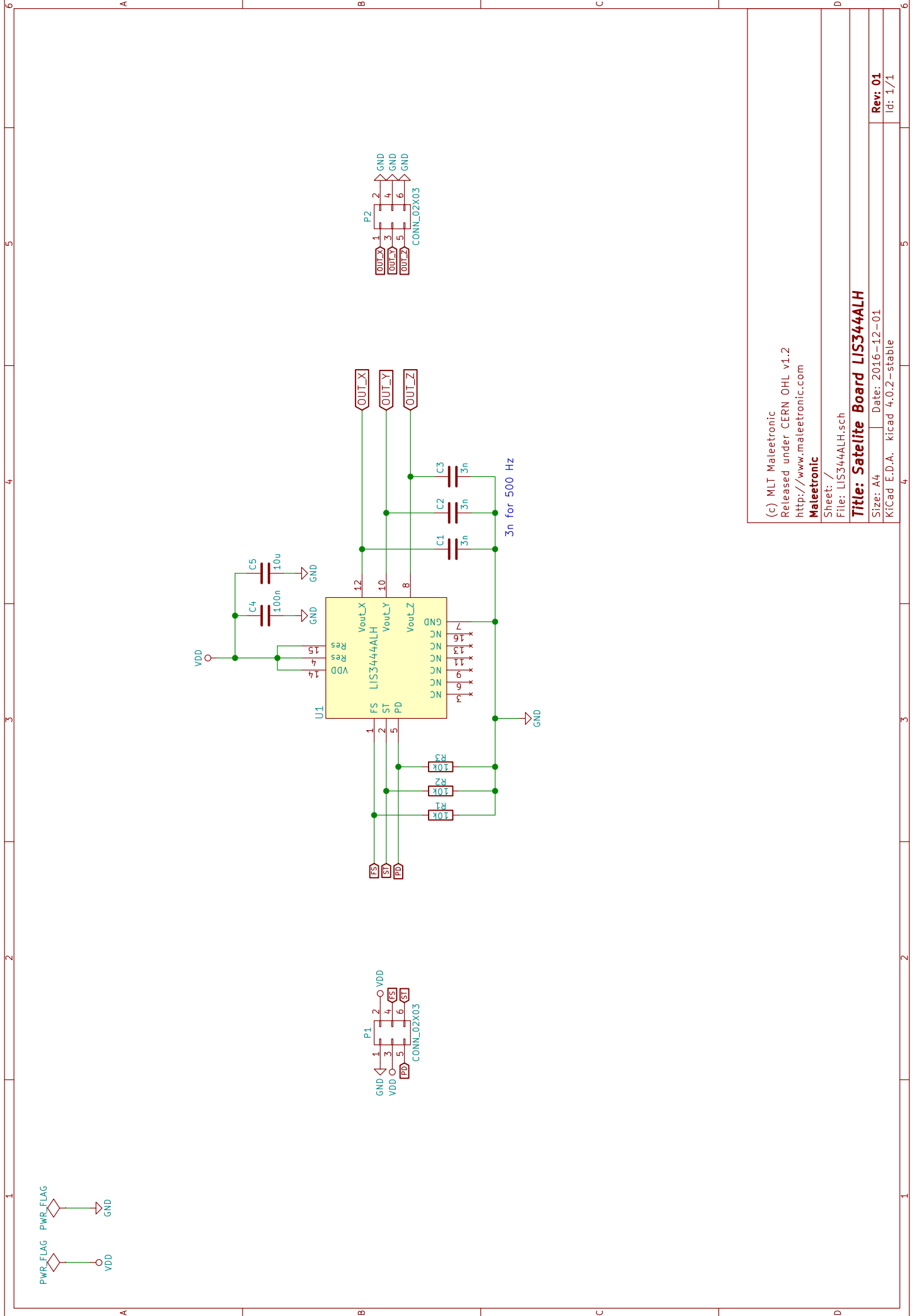
Position	Signal
1	X
2	GND
3	Y
4	GND
5	Z
6	GND

Output Capacitors

The output capacitors are chosen with 1.3 nF for a high bandwidth of 1.115 kHz. If one require less bandwidths, should increase these capacitance and change these capacitors accordingly, or just add more capacitance externally. Please read the data sheet section 4 "Application hints" for more details.

Attachments

1. Board Schematics
2. CERN OHL v1.2
3. CERN OHL v1.2 How-to-Guide



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