



LCAM 5/15 FAQs

1. FAULT Output

What state is the output for a Fault condition? E.g., does an open output indicate FAULT; or does a shorted output indicate FAULT? Please clarify in detail the FAULT output and what different output states are available, and what those output states indicate.

Fault outputs are optically isolated outputs. When there is no fault, the Collector (J1-Pin5) and Emitter (J1-Pin6) are shorted together. When the amplifier is faulted, Collector (J1-Pin5) and Emitter (J1-Pin6) are opened.

2. LIMIT Inputs

What are the possible input states, and what action does each of those inputs cause? E.g., open, short to GND, driven by TBD, others?

The \pm Limit inputs are configured for pulled down and active high. That is, if the \pm Limit inputs are left open from external circuit or driven with TTL low level voltages with respect to Signal GND, it is not active. If the \pm Limit inputs are driven with a TTL high level voltages, it is active.

3. INHIBIT Input

What are the possible input states, and what action does each of those inputs cause?

The Inhibit input is configured for pulled up and active high. That is, if the Inhibit input is left open from external circuit or driven with TTL high level voltages, it is active (the amp is disabled). If the Inhibit input is driven with a TTL low level voltages, it is not active (the amp is enabled).

4. EXTERNAL RESET Input

What are the possible input states, and what action does each of those inputs cause?

The External Reset input is configured for pulled down and active high. That is, if the External Reset input is left open from external circuit, it is not active. If the External Reset input is driven with a TTL high level voltages (then low), it is active (the amp is reset).

5. CURRENT SENSE Output

a. Is this output always positive? Or always negative? Or both positive and negative?

This output is both positive and negative.

b. What is the maximum voltage we will see from this output?

The Current Sense output has a gain of $2A=1V$. Under normal operating condition, this output should not be greater than +7.5V.

c. What is the minimum voltage we will see from this output?

The minimum voltage we will see from this output is -7.5V.

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6. SIGNAL Input

What is the voltage input range?

The analog signal input voltage range is +/-10V

7. TACH_IN Input

We do not have a Tachometer. What do we do with the TACH_IN input?

If no tachometer is connected, these connections are left open. Nothing will be connected to them.

8. We plan to have 2 motors driving each axis of our assembly

a. Can we use one amplifier to drive both motors on one axis?

You can connect more than one motor to the amplifier as long as the current ratings are not exceeded. Please note that since both motors are connected to the same amplifier, both motors will be moving exactly the same as both are receiving the same signal from the amplifier.

b. If we have one amplifier for each motor, can we use one DAC output to drive both amplifiers?

You can drive both amplifiers using the same DAC output. Please note that since both amplifiers are receiving the same DAC signal, both motors will be moving exactly the same as both are receiving the same signal from the amplifier. Do not daisy chain the DAC signal from one amp to another. The DAC signals must be connected from the DAC board to each amp separately.

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