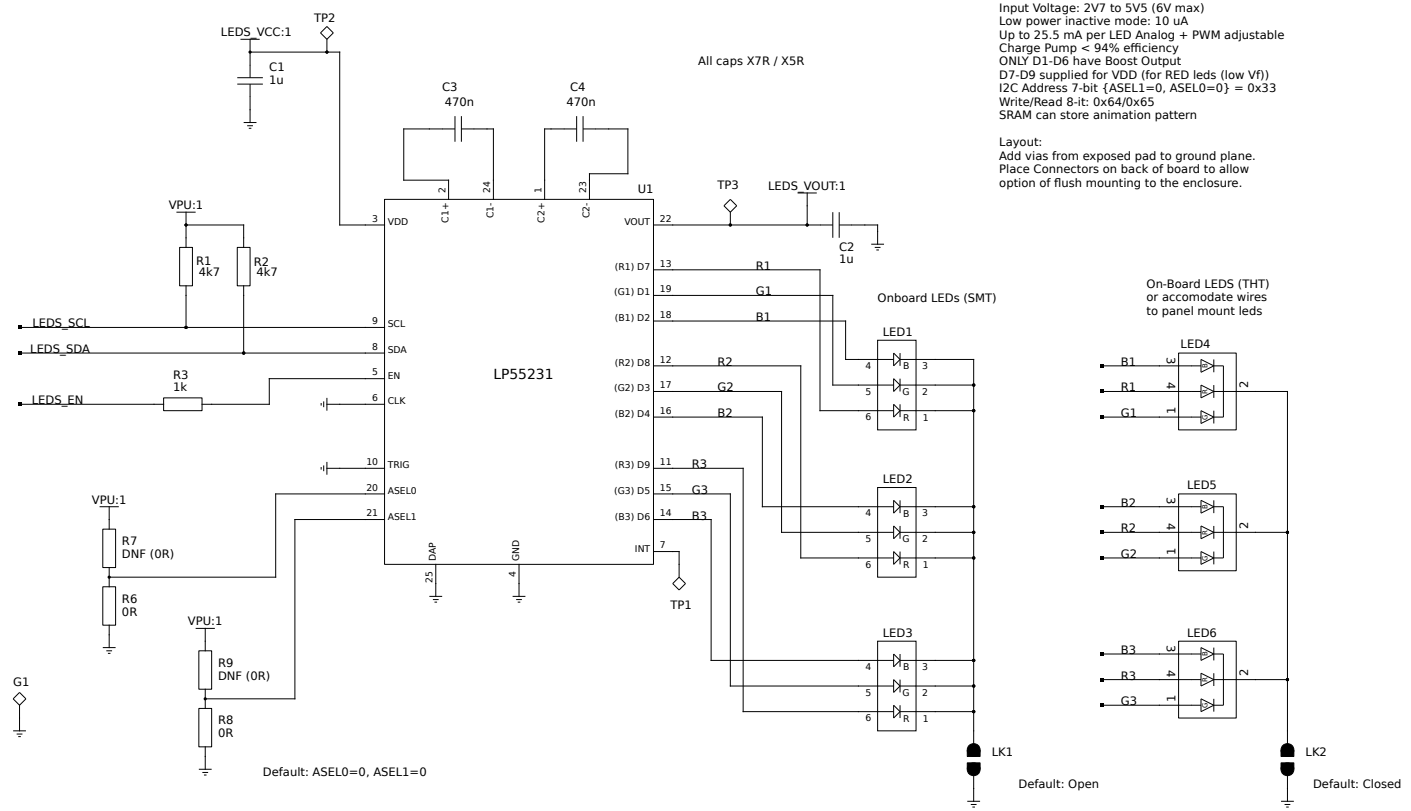
STATUS INDICATOR MODULE



LP55231:
Input Voltage: 2V7 to 5V5 (6V max)
Low power inactive mode: 10 uA
Up to 25.5 mA per LED Analog + PWM adjustable
Charge Pump < 94% efficiency
ONLY D1-D6 have Boost Output
D7-D9 supplied for VDD (for RED leds (low Vf))
I2C Address 7-bit {ASEL1=0, ASEL0=0} = 0x33
Write/Read 8-it: 0x64/0x65
SRAM can store animation pattern

Layout:
Add vias from exposed pad to ground plane.
Place Connectors on back of board to allow
option of flush mounting to the enclosure.

Unused Pins
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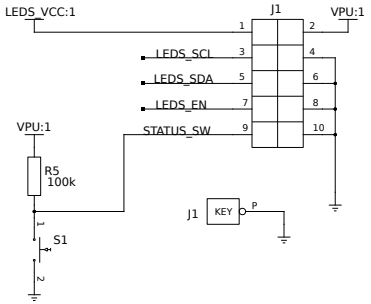
CLK/TRIG: Connect to GND if not used
INT: Leave unconnected if not used



Notes V0_0:
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The Jan 2020 prototype included status information update over
bluetooth to a smartphone BLE serial terminal.
For the Sep 2020 units instead of sending the data over bluetooth it has
been requested to use a very basic diagnostic indicator.
The reason proposed is that the smartphone app
would be too much of a training burden for the seasonal contracted operators.

What has been requested is a minimal status led display to indicate
the following key information:
CAT-M1 connected?
SD logging successful?
System measuring?

To avoid excess power usage it is intended that this status display only comes
on for say 15 min after the operator presses a 'show status' button. The
display should have a very low power shutdown mode to save battery energy.

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