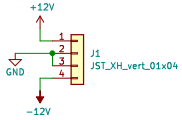
CONNECTORS

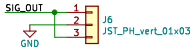
DC Input



Signal Output

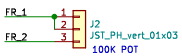
Board mount BNC receptacle

Auxiliary Output Connector



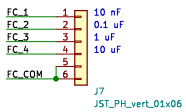
Frequency Dials

Frequency Knob



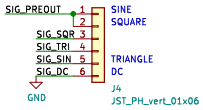
100K POT

Frequency Range Switch



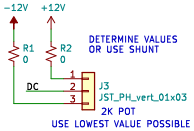
SP4T PANEL MOUNT ROTARY SWITCH

Output Select Dial



SP4T PANEL MOUNT ROTARY SWITCH

Duty Cycle Dial

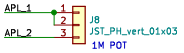


2K POT

USE LOWEST VALUE POSSIBLE

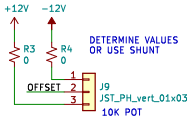
(24)^2 / R SHOULD NOT
EXCEED POWER RATING

Amplitude Dial



1M POT

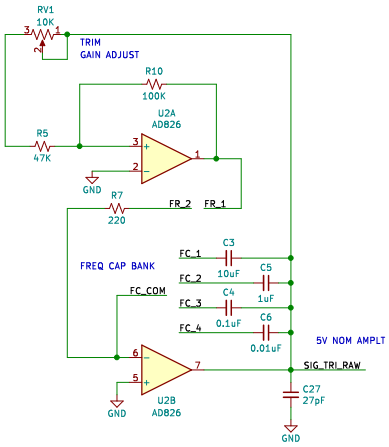
DC Offset Dial



10K POT

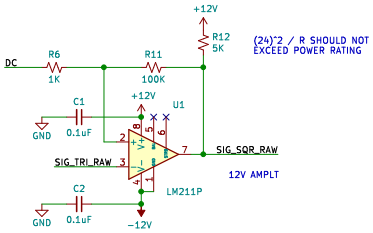
SQUARE-TRIANGLE GENERATOR

Integrator with Schmitt feedback



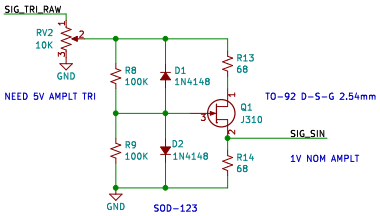
SQUARE GENERATOR

Comparator with Schmitt and DC control



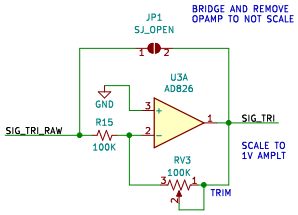
TRIANGLE - SINE SHAPER

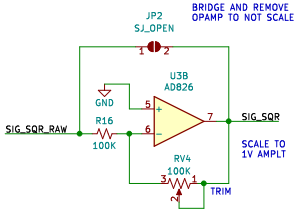
Middlebrook-Richer JFET shaper



OUTPUT PRESCALE

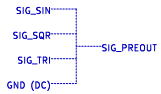
Inverting amplifiers





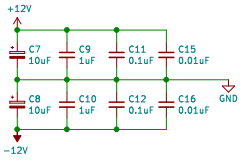
OUTPUT SELECT

SP4T SWITCH



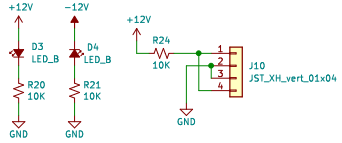
PANEL MOUNT

POWER



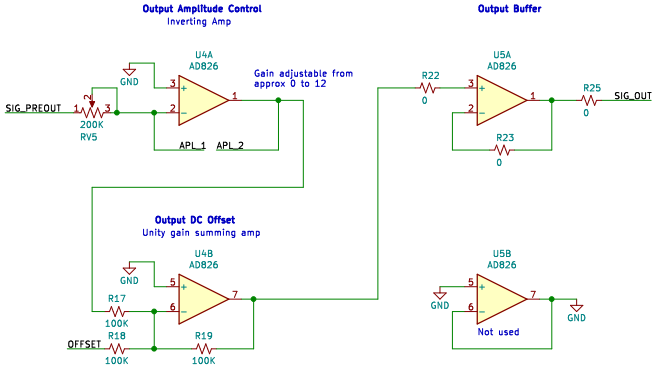
ELEC

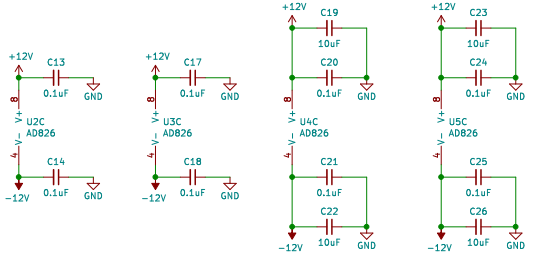
INDICATORS



BLUE LED ON CONNECTOR
PANEL MOUNT

OUTPUT AMPLITUDE / OFFSET





NOTES

THIS SCHEMATIC REVISION REFLECTS ACTUAL PRODUCTION CIRCUIT

Ray Sun
EE 90
Analog Electronics Project Laboratory
California Institute of Technology

Caltech EE

Sheet: /
File: triumph_main_production.sch

TRIUMPH

Title: Triumph Analog Function Generator - Main Board

Size: B	Date: 2019-06-12	Rev: B
KiCad E.D.A. kicad (5.1.2)-1		Id: 1/1