Cutting VUSB jumper and installing VUSB pin allows Teensy and board to be powered from USB –or– VLED

24–pin 2.54mm header sockets (and a single pin socket for VUSB), footprints stack on top of Teensy pins to manage assembly data

LEDS MUST BE POWERED EXTERNALLY. DO NOT RUN LED CURRENT THROUGH THIS BOARD!

TEENSY VUSB JUMPER MUST BE CUT IF VLED IS CONNECTED!

VLED up to 12V (e.g. for use with WS2815 LEDs)

If using 5V LEDs (WS2812b), bridge JP3 to power Teensy directly from 5V supply

FSYNC output provided for compatibility with VideoDisplay example project. Can also be used to drive a single 3.3V–compatible LED strip with no buffer

Teensy 4.0 connected to J2, J3, J6, J7, J10, and J11. Up to 24 outputs useabale by shorting FSYNC, FSYNC_ALT jumpers

J10/11 outputs can be used with OctoWS2811, but takes up pins normally dedicated to I2C, SPI, analog inputs 10 and 17, and on–board LED

USB D+/– pads, USB Host still available. GPIO42–54 accessible via on–board SD card slot and QSPI pads

RJ45 magjack for ethernet (Teensy 4.1 only)
Must install 2x3, 2mm pitch header on Teensy

2x3 2mm header recptacle, footprint stacks on top of Teensy Ethernet pins to manage assembly data

TOOL4
JLC Order Number
JLCJLCJLCJLC

Unless otherwise noted, all passive components:
– Size 0603
– Capacitors rated 6.3V+
– All resistor values = 100R
– Resistors rated 1/16W+
– Tolerances not critical

Loudifier
Experimental Amplification

Teensy 4.0/4.1 Penta–OctoWS2811 Adapter

Rev: A

Date: 08 MAR 2024