









+3V3 +3V3 +5٧ Addressable LED Array R601 R602 10k 10k LED11-1 LEDIND-DIN Dout< Q601 File: LEDx11.kicad_sch BSS138 LED11-2 Level Shifter +3V3 to 5V DIN Dout< File: LEDx11.kicad_sch LED11-3 DIN Dout< File: LEDx11.kicad_sch LED11-4 DIN Dout< File: LEDx11.kicad_sch LED11-5 DIN Dout< File: LEDx11.kicad sch LED11-6 Dout< File: LEDx11.kicad_sch LED11-7 DIN Dout< File: LEDx11.kicad_sch LED11-8 DIN Dout< File: LEDx11.kicad_sch LED11-9 DIN Dout< File: LEDx11.kicad_sch LED11-10 DIN Dout< File: LEDx11.kicad_sch LED04-1 DIN Dout∢ License: CERN-OHL-P File: LEDx4.kicad_sch Author: Nikolai Zoller Company: ElektroNik Zoller Never use all LEDs at full brightness. This means that in normal clock mode between 10 and 30 LEDs will be on at the same time. At peak times these can be run at 100 % brightness without any problem. However, if the LEDs are used with other modes that control all 114 LEDs, the brightness must not exceed 50 %! Sheet: LEDs File: LEDs.kicad_sch Other applications need to be checked by the user. The USB connectors support up to 5V @ 3A (when using the appropriate PD power supply). Calculate about 20 mA per LED and per colour, i.e. as white LED (all colours combined) will consume about 60 mA. All 114 LEDs would therefore require more than 6.8A, which the USB PD (in this configuration) cannot provide! Title: Wordclock - LEDs Date: 2024-10-29 Size: A4 Rev: A KiCad E.D.A. 8.0.6 ld: 6/17





















