DC Input and Regulator LED Drivers and Clock Arms Real-time Clock Module 1kΩ DCIN VDC R2 10kΩ COINCLIP -**/**₩/---oğ TLC5971 ARMO ARM LED3 MN 32kHz RTC_INT 5V - 12V DC Input LED4 SC INT/SQW VCC OUTRO OUTGO 20 VREG OUTB0 1kΩ LED5 HR NC(CTG) IC3 OUTR1 ARM1 ARM LM1117 R4 ♦ LED6 MN NC(CTG OUTG1 560Ω LED7 SC NC(CTG $2.7k\Omega$ OUTB1 §0—**-**₩₩-OUTR2 13 **√**______ DIN NC(CTG) VOUT OUTG2 19 DOUT MISO VDC LED_MOSI → LED8 HR NC(CTG) 18 SCK SCK ARM2 ARM NC(CTG) C3 C4 OUTR3 16 → LED9 MN 10 SCKI 5DTO OUTG3 17 SCKO & OUTB3 18 ☐ LED10 SC 22uF 🛨 **☆** 10uF 3.5V Regulator →LED11 HR ARM3 → LED12 MN ATMega328P MCU IC4 TLC5971 ♦LED14 HR ARM4 →LED15 MN ATMEGA328P LED16 SC OUTR0 LED_SCK 29 RESET(PC6) PC5(ADC5/SCL/PCINT13) OUTG0 LED_MOSI PC4(ADC4/SDA/PCINT12) OUTB0 PC3(ADC3/PCINT11) OUTR1 5 GND ARM5 ARM LED18 MN OUTG1 PC2(ADC2/PCINT10) LED19 SC $2.7k\Omega$ OUTB1 PC1(ADC1/PCINT9) -√W√----oğ R9 10kΩ **√**₩₩-OUTR2 PCO(ADCO/PCINT8) 1uF OUTG2 LED20 HR 1uF OUTB2 C7 PD7(PCINT23/AIN1) ARM6 ARM →LED21 MN 10 OUTR3 16 PD6(PCINT22/OCOA/AINO) SCKI SDTO OUTG3 17 SCKO 2 OUTB3 18 C8 0.1uF -WW----oğ LED22 SC PD5(PCINT21/OCOB/T1) R10 10kΩ PD4(PCINT20/XCK/T0) PD3(PCINT19/OC2B/INT1) XTAL2(PB7) XTAL1(PB6) ♦LED23 HR RTC_INT PD2(INTO/PCINT18) ARM7 ARM →LED24 MN LED25 SC PD1(TXD/PCINT17) PB5(SCK/PCINT5) PD0(RXD/PCINT16) 16 PB4(PCINT4/MISO) IC6 15 PB3(PCINT3/OC2A/MOSI) J10 TLC5971 ×14 PB2(PCINT2/SS/0C1B) PB1(PCINT1/0C1A) ARM8 LED27 MN SERIAL 19 VCC OUTRO × 12 PBO(PCINTO/CLKO/ICP1) ADC6 OUTG0 VREG OUTB0 ♦LED29 HR OUTR1 →LED30 MN ARM9 R8 OUTG1 → LED31 SC $2.7k\Omega$ OUTB1 OUTR2 13 3 SCK MOSI OUTG2 14 5 RESET GND 6 →LED32 HR OUTB2 ARM10 ARM →LED33 MN OUTR3 16 SCKI P11 AVR ISE OUTG3 17 LED34 SC ×12 SDT0 ×11 SCK0 SCKO OUTG3 ARM11 ARM →LED36 MN Open Source Hardware LED37 SC Released under the terms of the Creative Commons BY-SA 3.0 License Wiley Cousins, LLC. File: clockblock-pcb.sch Sheet: / Title: clockblock PCB Size: A Date: 25 sep 2013 Rev: 0.1 KiCad E.D.A. ld: 1/1