

VOLTAGE REGULATION CR1 1N4001 PWR_FLAG +9V IN SOUT 1 -2× -3× -5 -6 → GND GND C41 C42 + C29 10uf - .1uF 10uf C39 + C40 10uf PWR_FLAG **→** -5V CR3 1N4001 PWR_FLAG +15V VR2 № LM7812_T0220 C43 + C44 .1uF 22uF C45 C46 .1uF GND DECOUPLING CAPS 12V Decoupling +12V← GND 5V Decoupling GND -5V Decoupling COMMON POWER PINS U14G 74LS05 U6E 74LS32 U3G 74F04 U5E 74LS08 U40C 74LS20 U10C 74LS74 U17B 74LS30 U13E 74LS32 U4C 74LS221 U2C 74LS123 Author: InsaneDruid License: CC BY 4.0 creativecommons.org/licenses/by/4.0/ reverse-engineered in 2022 Sheet: /VOLTAGE REGULATION/ File: voltage_regulation.kicad_sch Title: LOW SPEED GRAPHIK Size: A3 Date: 2022-03-13 KiCad E.D.A. kicad (6.0.9) Rev: V001

MASTER TIMINGS +5V +5٧ +5٧ ↑ U1 R29 4.7K ↑ U12 74LS169BN ↑ U11 TBP18s030 LOAD Y1 C51 CLK₁₄ CLK_{1.75} RCO 14 Mhz 22pF QA 01 -DCLKRASCAS QB 13 Q2 3Q -DCLKRAS 3 1D Q3 4 4Q -DCLKcas U3A U3B U3C Q4 5 Q5 6 Q6 7× Q7 9× 10 →CLKEF936x 74F04 74F04 74F04 -DCLKclr QD 11× 5Q -DCLK_WRITE R2 R3 GND GND 470 470 GND GND GND DCLK14 Author: InsaneDruid License: CC BY 4.0 creativecommons.org/licenses/by/4.0/ reverse-engineered in 2022 Sheet: /MASTER TIMINGS/ File: master_timings.kicad_sch Title: LOW SPEED GRAPHIK Size: A4 Date: 2022-03-13 Rev: V001 KiCad E.D.A. kicad (6.0.9) ld: 3/10

GPD & ROM DPETOD-+5٧ U18 -DPET[0..4] 74LS374 D[0..7]D-00 2 DPETO 01 5 DPETO 02 6 DPETO 03 9 DPETO 04 12 DPETO 05 15 DPETO 06 16 DPETO 74LS32 06 16 DPET6 07 DPET7 D6 D7 74LS32 CLK1.75D +5V U9 EF936x GND **FMAT** —DDIN —DDW JQ4 25 24 23 23 22 RESET MFREE 19 DPETO 33 DI DPET1 32 DI DPET2 31 DI DPET3 30 DI DPET4 29 DI DPET5 28 DI DPET6 27 DI DPET7 26 MSL1 MSL2 MSL1 36 MSL3 35 MSL3 —DMSL[0..3] ADISPLAY DADO 37 18 CSAPET 17 CS9PET 16 15 14 13 12 11 10 9 DPET7 DADD 97 ADISPLAY1 DAD1 38 ADISPLAY2 DAD5 2 ADISPLAY5 DAD5 3 ADISPLAY4 DAD3 4 ADISPLAY4 DAD3 4 ADISPLAY4 DAD3 5 ADISPLAY6 CSAPET +5٧ U39 CLKEF936xD 21 LPCK 9 74LS138 LPCKD--DADISPLAY[0..6] ALL ALL 22 DALL 00 15 01 14 02 13 03 12 04 11 × 05 10 × 06 9 × 9 DPET7 8 DPET6 7 DPET6 6 DPET4 5 DPET3 4 DPET2 3 DPET1 2 DPET0 1 APET5 APET6 SYNC -DSYNC Ар<u>ет</u>0 9 R31 12K APET 10 A1 APET 2 11 A2 APET 3 12 A3 -DLIGHTPEN_ENABLE BLK 2 -DBLK PHI2 6 CSAPET 5 N VB 16 IRQ 13 WHITE WHITE 24 —⊳WHITE APFT[0..11] GND GND 25 24 23 22 RW 21 PHI2 20 19 18 17 16 15 14 Aper10 10 Aper8 Aper6 7 Aper6 7 Aper6 7 Aper6 7 Aper6 7 Aper6 7 Aper7 JQ3 GND GND +5V +5٧ U40A 74LS20 U29 2332A U40B APET11 3 1 Арет8 74LS20 APET9 APET10 CSAPET +5٧ CS2 ROM PHI2 12 PHI2 13 R26 4.7K APET0 APET1 APET2 APET3 APET4 D0 9 DPETO D1 10 DPET1 D2 11 DPET2 D3 13 DPET3 D4 14 DPET4 D5 15 DPET5 D6 16 DPET6 D7 17 DPET7 A3 A4 A4 A5 A5 A6 A7 A7 A8 A8 A9 A10 A11 APET5 APET6 APET7 U14F 74LS05 <u> Арет8</u> <u> Арет9</u> JumperM 1 J10 CSAPET 12 +5V JP3 + 10K APET10 CS9PET1 13 U5D 74LS08 APET11 1 JP2 GND \downarrow APET[0..11] GND Author: InsaneDruid License: CC BY 4.0 creativecommons.org/licenses/by/4.0/ reverse—engineered in 2022 Sheet: /GPD & ROM/ File: gdp_rom.kicad_sch Title: LOW SPEED GRAPHIK Size: A3 Date: 2022-03-13 KiCad E.D.A. kicad (6.0.9) Rev: V001











